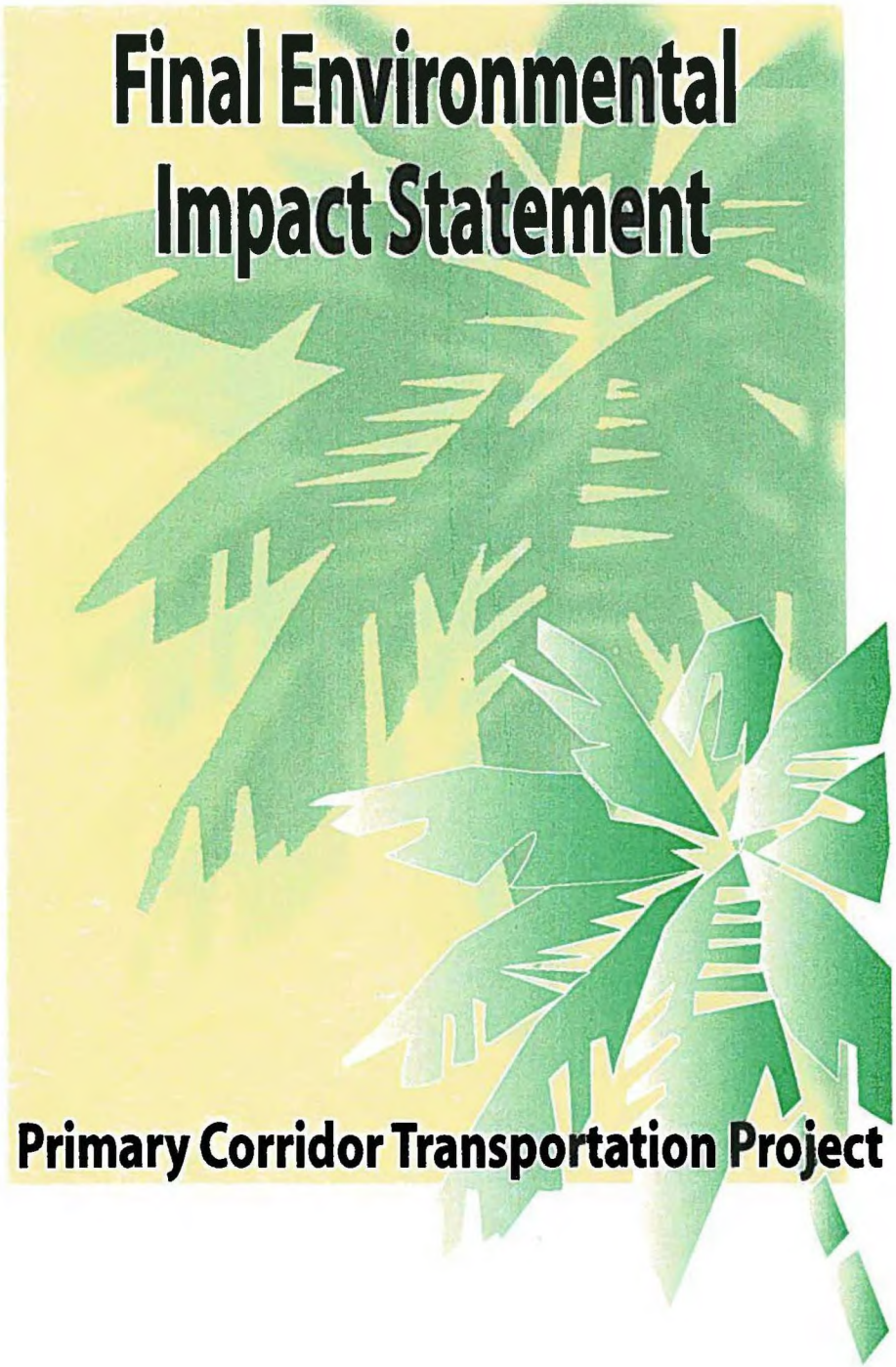
Final Environmental Impact Statement



Primary Corridor Transportation Project

VOLUME 1 OF 4

Chapters 1 to 6
IOS Chapter

US Department of Transportation
Federal Transit Administration

City and County of Honolulu
Department of Transportation Services

JULY 2003

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Primary Corridor Transportation Project

FINAL ENVIRONMENTAL IMPACT STATEMENT

SUBMITTED PURSUANT TO:

National Environmental Policy Act of 1969, §102, 42 U.S.C. §4332; Federal Transit Laws, Title 49 U.S.C. Chapter 53, §5301(e), §5323(b) and §5324(b); Title 49 U.S.C. §303, formerly Department of Transportation Act of 1966, §4(f); National Historic Preservation Act of 1966, §106, 16 U.S.C. §470f; Executive Order 11990 (Protection of Wetlands); Executive Order 11988 (Floodplain Management); and Executive Order 12898 (Environmental Justice).

by the

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

CITY AND COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

Cooperating Agencies

U.S. Army Corps of Engineers
U.S. Department of Transportation, Federal Highway Administration
State of Hawaii, Department of Transportation

JUL 25 2003
Date of Approval

Leslie T. Rogers
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For Federal Transit Administration

JUL 23 2003
Date of Approval

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Abstract

This Primary Corridor Transportation Project, Final Environmental Impact Statement (FEIS) responds to the comments received on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) published in August 2000 and the Supplemental Draft Environmental Impact Statement (SDEIS) published in March 2002. It also reaffirms selecting the Bus Rapid Transit (BRT) Alternative as the Locally Preferred Alternative (LPA).

Actions described in this FEIS are intended to address existing and future mobility constraints in Oahu's primary transportation corridor. The primary transportation corridor extends from Kapolei in the Ewa District to the University of Hawaii-Manoa and Waikiki in the Primary Urban Center (PUC). Three alternatives are presented in this document: (1) The No-Build Alternative consists of a reconfiguration of the present bus network to a hub-and-spoke pattern, with modest expansion of bus service in developing areas (e.g., Kapolei) to maintain existing service levels; (2) The Transportation System Management (TSM) Alternative which features the reconfiguration of the present bus route network to a hub-and-spoke network, expansion of service by 14 percent over the No-Build Alternative, plus some bus priority treatments on arterials in the Primary Urban Center (PUC) and in Leeward Oahu; and (3) Refined Locally Preferred Alternative (Refined LPA): This alternative builds on the hub-and-spoke bus system in the other alternatives, and adds Regional and In-Town Bus Rapid Transit (BRT) routes. The Regional BRT element includes a continuous H-1 BRT Corridor from Kapolei to Downtown using a.m. and p.m. contraflow zipper lanes and express lanes. The In-Town BRT component is a high capacity transit spine from Middle Street to Iwilei, an Iwilei to Waikiki Branch via Kakaako Makai, a University Branch from Downtown to UH-Manoa, and a Kakaako Mauka Branch. All three alternatives include the recently updated regional highway plan contained in the Oahu Metropolitan Planning Organization's Transportation for Oahu Plan (TOP 2025).

The first segment of the Refined LPA to be constructed is a 5.6-mile section between Iwilei and Waikiki. Funds for this Initial Operating Segment (IOS) are fully appropriated. Construction is expected in 2004-2005, with service projected to start at the end of 2005. The impacts of the IOS are described in this FEIS for its first year of service, 2006. The remainder of the Refined LPA will be phased over a period of 12 years after construction of the IOS.

This document includes copies of comments received on the MIS/DEIS and SDEIS plus the letters responding to those comments. In addition, this document presents the final analyses of these three alternatives in terms of transportation and environmental impacts, financial feasibility and funding sources, and cost-effectiveness. Transportation analyses include effects on transit service and other surface transportation systems, and transit ridership. Environmental parameters examined include land use, displacements and relocations, neighborhood setting, natural resources, air quality, noise, parklands, historic sites, visual resources and impacts during construction. This FEIS presents a description and impact analysis

for the IOS between Iwilei and Waikiki in each chapter as well as in a stand-alone chapter. If deemed appropriate, FTA will issue a Record of Decision (ROD) for the IOS. The remainder of the Refined LPA is planned to be the subject of a separate ROD at a future time.

Copies of this document are available for review at the Department of Transportation Services, Office of Environmental Quality Control, Legislative Reference Bureau Library, Municipal Reference and Records Center, University of Hawaii Hamilton Library, and State Main and Regional Libraries on Oahu.

COMMENTS:

Public comments will be accepted on this FEIS for 30 days after the Notice of Availability is published in the Federal Register. Written comments should be submitted to:

Ms. Cheryl D. Soon, Director
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City and County of Honolulu
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Comments are due by September 8, 2003.

PREFACE

This Final Environmental Impact Statement (FEIS) is prepared in compliance with the National Environmental Policy Act (NEPA). The U.S. Department of Transportation (USDOT), Federal Transit Administration (FTA) is the lead federal agency for this project, and the City and County of Honolulu's Department of Transportation Services (DTS) is the local lead agency. The U.S. Army Corps of Engineers (ACOE), the USDOT Federal Highway Administration, and Hawaii Department of Transportation are cooperating agencies. This FEIS has been prepared in accordance with the National Environmental Policy Act of 1969, §102, 42 U.S.C. §4332; Federal Transit Laws, Title 49 U.S.C. Chapter 53, §5301(e), §5323(b) and §5324(b); Title 49 U.S.C. §303, formerly Department of Transportation Act of 1966, §4(f); National Historic Preservation Act of 1966, §106, 16 U.S.C. §470(f); Executive Order 11990 (Protection of Wetlands); Executive Order 11988 (Flood Plain Management); Executive Order 12898 (Environmental Justice); and FTA guidelines, Procedures and Technical Methods for Transit Project Planning; FTA/FHWA regulations, Environmental Impact and Related Procedures (August 1987); and Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (July 1986).

This document is a major milestone in a public process that began with alternatives analysis in 1998. The Department of Transportation Services (DTS) distributed the Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) to agencies and the public in August 2000. Following the release of the MIS/DEIS, there was an agency and public review period from August 23, 2000 to November 6, 2000. The MIS/DEIS analyzed and compared the environmental, social, transportation, and financial impacts of three alternatives: No-Build, Transportation System Management (TSM), and Bus Rapid Transit (BRT).

In addition to the MIS/DEIS public hearing (held on October 12, 2000), special public hearings were conducted by the Honolulu City Council Transportation Committee on September 25 and October 5, 19, and 26, and November 14, 2000. On November 29, 2000, the Honolulu City Council selected the BRT Alternative as the Locally Preferred Alternative (LPA).

At the time of adopting the LPA, the City Council asked the DTS to continue public dialogue on the project. Community working groups were formed to provide a forum for open dialogue between project sponsors and neighborhood, civic, business, government and other organizations so that environmental and transportation issues and refinements to project proposals could be discussed. The working groups also provided the community with an opportunity to obtain a greater in-depth understanding about BRT and what it means for their communities.

On August 1, 2001, the Honolulu City Council, responding to input from the Working Groups and comments received on the MIS/DEIS, refined the LPA to include new and modified components. The major change proposed was an additional line to serve the Kakaako Makai area, which by then had been selected as the site of the University of Hawaii Medical School and related facilities (currently under construction). The Supplemental Draft Environmental Impact Statement (SDEIS) prepared was approved for distribution by the State of Hawaii, Office of Environmental Quality Control (OEQC) and copies were distributed to the public, libraries, community groups, and local, State, and federal agencies for review and comment. The agency and public review period was from March 23, 2002 to May 7, 2002. The SDEIS public hearing was held on April 20, 2002.

For the MIS/DEIS, 152 comment letters were received from federal, state, and local agencies; elected officials; neighborhood boards; businesses; civic organizations; and citizens. Twenty-three people presented oral testimony at the MIS/DEIS public hearing. At the special Transportation Committee public hearings, 86 people presented oral and/or written testimony regarding the project. Many people commented in more than one method.

For the SDEIS, 95 comment letters were received and 63 people gave oral testimony at the public hearing.

Many comments received expressed support or opposition to a particular alternative. Numerous substantive comments were also received during the MIS/DEIS and SDEIS public comment periods. The most frequently expressed concerns related to the following issues:

1. Costs and methods of financing a BRT alternative;
2. Traffic and transportation issues;
3. Community and social concerns; and
4. Anticipated ridership.

Project refinements that address the public and agency comments received on the MIS/DEIS and SDEIS made the Refined LPA more cost-effective and increased its service. These refinements are: 1)substituting North-South Road for Kunia Road as the park-and-ride location serving the Ewa Plains area; 2)replacing the direct connector ramps at Kapolei, Kunia (now North-South Road), and Middle Street with less costly Bus Rapid Transit (BRT) priority treatments at these same locations using existing and planned freeway ramps; and 3)shifting a short section of the Kakaako Makai branch alignment to Forrest Avenue rather than Channel Street as the connection between Ala Moana Boulevard and Ilalo Street. The refinements will either not change the impact of the proposed action, or will result in a lessening of impacts.

The FEIS incorporates updates to land use forecasts for Oahu prepared subsequent to the MIS/DEIS. Also reflected in the FEIS is the set of highway projects established in the recently updated Oahu regional transportation plan (ORTP), or Transportation for Oahu Plan 2025 (TOP 2025). The Oahu Metropolitan Planning Organization (OMPO) Policy Committee adopted the updated ORTP, including the LPA transit project, on April 6, 2001. The OMPO Policy Committee adopted the Oahu Transportation Improvement Program (OTIP, project code C28) on September 19, 2001, with both the Regional and In-Town elements of the BRT Alternative as approved projects.

Implementation of the Refined LPA will be phased over 14 years, with DTS being the implementing agency for the entire project. A memorandum of agreement will be formalized with the SDOT for improvements to the H-1 Freeway that are part of the Regional BRT. In 2002, the Honolulu City Council selected the segment from Iwilei to Waikiki as the Initial Operating Segment (IOS) and appropriated $31 million in local funding. Local funding, along with $20 million in federal New Starts funds will pay for the full cost of the IOS.

A State FEIS was prepared pursuant to Hawaii Revised Statutes (HRS) Chapter 343. The State FEIS was approved by Governor Benjamin Cayetano on November 29, 2002.

Like the State FEIS, this Federal FEIS (under NEPA) addresses the comments received on the MIS/DEIS and SDEIS. It also places special attention to the section of the Refined LPA that will be constructed first, the IOS. The IOS is the 5.6 miles between Iwilei and Waikiki.

Public comments will be accepted by DTS and FTA on this NEPA FEIS for 30 days after its Notice of Availability is published in the Federal Register. The FTA will consider these comments in its determination on the issuance of the Record of Decision for the IOS of the Refined LPA. The project sponsor plans to request that FTA consider a separate ROD to cover the remainder of the Refined LPA at a future time.

ORGANIZATION OF THE FEIS

The FEIS consists of an Executive Summary, seven chapters, plus one chapter specific to the Initial Operating Segment (IOS Chapter), and three appendices. Impacts of the IOS are stated within each FEIS chapter as well as in a self-contained chapter, which has been added for the convenience of readers. Due to the number of pages of the FEIS, this document was divided into four volumes. Volume One includes the Executive Summary, Chapters One through Six and the IOS Chapter. Volume Two includes Appendices A and C, the Glossary, a List of Acronyms used in the FEIS, the Bibliography, a List of the FEIS Preparers and a List of FEIS Recipients. Volume Three consists of only Chapter Seven, which contains agency and public

comments on the MIS/DEIS and the SDEIS. Volume Four contains the preliminary engineering drawings of the Refined LPA and the IOS.

The Executive Summary presents the major findings in summary form. The Executive Summary is intended to provide the reader with a basic understanding of the mobility constraints in the primary transportation corridor, the alternatives considered to address these mobility constraints, and the major impacts associated with the alternatives.

Chapter 1, Purpose and Need, provides a description of the mobility problems in the primary transportation corridor, leading to a statement of the goals and objectives that this investment in transportation improvements is meant to achieve.

Chapter 2, Alternatives Considered, provides an overview of the screening and selection process that was applied to alternative transportation investments. Three alternatives are described and subjected to detailed assessment. This chapter discusses the capital and the operating and maintenance costs of each alternative. Alternatives considered, but not ultimately included, are also discussed here.

Chapter 3, Affected Environment, describes the existing social and natural environmental conditions in the primary transportation corridor. This discussion provides an understanding of the environment in which the transportation investments would take place, identifies sensitive resources, and benchmarks the environmental conditions so that an assessment may be made of the impacts that alternative transportation investments could create.

Chapter 4, Transportation Impacts, describes impacts on the transportation system that would result from the alternative transportation investments. Conditions are assessed based on projections to year 2025. The chapter emphasizes the performance of the transit and roadway systems.

Chapter 5, Environmental Consequences, discusses potential impacts of the alternatives on the built and natural environment, both during project construction and upon completion. Mitigation measures to reduce the level of adverse impact are described where appropriate. Specific elements analyzed in the chapter include:

- Land Use and Economic Development
- Displacements and Relocations
- Neighborhoods
- Visual and Aesthetic Resources
- Air Quality
- Noise and Vibration
- Ecosystems
- Water
- Energy
- Historic and Archaeological Resources
- Parklands
- Construction
- Conformance with Sections 106 and 4(f)

The IOS Chapter describes the first phase of the project that will be implemented, and describes the transportation and environmental impacts of that portion of the project.

Chapter 6, Financial Analysis and Alternatives Comparison, presents information on the financial feasibility and funding sources for each alternative plus evaluates how well each alternative satisfies the project purposes and needs and compares the cost-effectiveness and equity of the alternatives.

Chapter 7, Responses to Comments, presents the oral and written comments received on the MIS/DEIS and SDEIS and the responses to those comments.

Appendix A summarizes public involvement activities and agency coordination processes. Appendix B contains preliminary engineering drawings of the IOS and the Refined LPA. Appendix C contains the project's cash flow analysis.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
FINAL ENVIRONMENTAL IMPACT STATEMENT

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EXECUTIVE SUMMARY

OVERVIEW

The Department of Transportation Services (DTS) for the City and County of Honolulu and the Federal Transit Administration (FTA) have prepared this Final Environmental Impact Statement (FEIS) for the Primary Corridor Transportation Project (PCTP) in accordance with the National Environmental Policy Act of 1969 (NEPA). Comments will be accepted by DTS and FTA on this FEIS for 30 days after its Notice of Availability is published in the Federal Register. FTA will consider these comments in its determination on whether to issue a Record of Decision (ROD) for the Initial Operating Segment (IOS) of the Refined Locally Preferred Alternative (Refined LPA). Impacts of the IOS are stated within each FEIS chapter as well as in a separate chapter.

A Notice of Intent was published on April 27, 1999 to inform the public and affected agencies that an EIS was to be prepared. A formal scoping meeting was held on May 11, 1999. A Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) was published in August 2000 and the LPA was selected in November 2000. A Supplemental Draft Environmental Impact Statement (SDEIS) was published in March 2002 to consider service to the Kakaako Makai area, which by then had been selected as the site of the University of Hawaii Medical School. The alignment to Kakaako Makai was also added to the LPA in August 2001.

This FEIS addresses the comments on the MIS/DEIS and SDEIS and places special attention to the Initial Operating Segment (IOS) which has been identified as the first phase for construction. For each phase of the total project to be implemented, there needs to be appropriations by the City Council and a commitment of federal matching funds. These appropriations exist for the IOS, and will need to be obtained for the balance of the project.

The 5.6-mile IOS is located between Iwilei and Waikiki, along the Kakaako Makai alignment and construction will consist of concrete lanes, signal priority, and widening of sections of Ala Moana Boulevard and Kalia Road. Construction at the transit stops will include a 13-inch high raised platform, benches, and canopies (except in historically sensitive locations). The IOS will be served by hybrid diesel-electric vehicles operating at-grade in exclusive or semi-exclusive lanes for 2.5-miles and in mixed traffic for 3.1- miles. Bus service will operate every six minutes during peak hours and every ten minutes during off-peak hours. The IOS will improve travel time between its end points in Downtown (Beretania Street/Aala Park stop) and Waikiki (Kapahulu Avenue stop) by 8-10 minutes over comparable existing routes that travel along the Ala Moana Boulevard corridor (Routes 19, 20, or 42). It will also provide improved travel times for points in between. The IOS will provide service to an area of Kakaako where currently no service exists.

The total capital cost for the IOS components is estimated to be $50.9 million in year of expenditure dollars and is fully funded. The estimated $4-5 million cost of the ten hybrid diesel-electric BRT vehicles that are required for IOS operations is not included in the capital cost of the IOS, since all of the vehicles will be purchased with already allocated City funds as part of the fleet replacement program, with or without IOS implementation.

Construction of the IOS will take two years. Passenger service will begin in 2005 and may begin with available diesel buses until new hybrid diesel buses are delivered. No significant impacts would result from implementing the IOS.

In response to comments received on the MIS/DEIS and SDEIS, the Refined LPA includes the following changes: 1) substituting North-South Road for Kunia Road as the park-and-ride location serving the Ewa Plains area; 2) replacing the direct connector ramps at Kapolei, Kunia (now North-South Road), and Middle Street with less costly Bus Rapid Transit (BRT) priority treatments at these same locations using existing and planned freeway ramps; and, 3) shifting a short section of the Kakaako Makai branch alignment to Forrest

Avenue rather than Channel Street as the connection between Ala Moana Boulevard and Ilalo Street. The refinements will either not change the impact of the proposed action, or will result in a lessening of impacts.

This FEIS does not address requirements under Hawaii Revised Statutes Chapter 343. A separate State FEIS was prepared and filed in November 2002 for the purposes of complying with Chapter 343.

S.0 ORGANIZATION

The purpose of this FEIS is to identify potential impacts resulting from the proposed implementation of the Refined LPA with a focus on the IOS between Iwilei and Waikiki. Figure S-1 shows the elements of the Refined LPA and Figure S-2 shows the IOS elements.

The Executive Summary is organized in three parts. The first is a synopsis of the Iwilei to Waikiki section, called the IOS in this document. It will be the first section constructed with operations set for 2005. The impacts described are for one year after operations are initiated (2006). The second part of the Executive Summary is a synopsis of the Refined LPA, both the Regional and In-Town components. The IOS is a subset of the In-Town component. The Regional and In-Town components are expected to be constructed over a 14-year period (due primarily to financial planning and to minimize impacts due to disruptions during construction). Impacts are shown for the Year 2025, which is after all components are constructed and in full operation for several years.

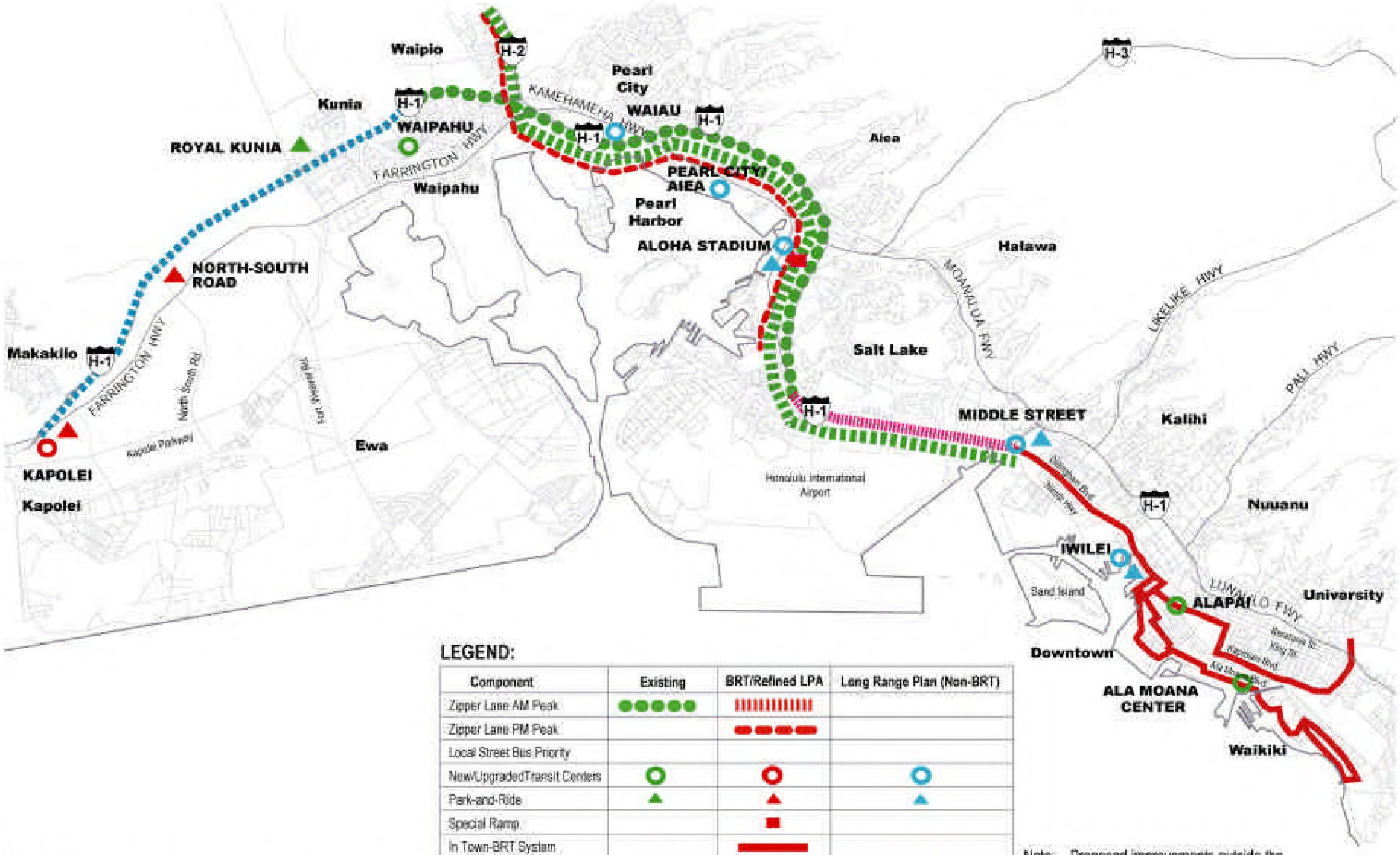
The third part of the Executive Summary provides summary synopses of the major findings of each of the chapters of this FEIS. Section S.1 summarizes the purpose and need for the project followed by Section S.2, which describes the alternatives that were considered, their evolution and the capital and operating and maintenance costs. Section S.3 summarizes the environmental impacts and analyses. Section S.4 discusses the financial analysis and cost-effectiveness analysis. Section S.5 summarizes the analysis of equity and environmental justice. Section S.6 describes trade-offs between the alternatives and issues for future consideration. Section S.7 lists the permits and approvals that are required. Section S.8 summarizes the unresolved issues.

EXECUTIVE SYNOPSIS OF IWILEI TO WAIKIKI SEGMENT (INITIAL OPERATING SEGMENT)

The IOS alignment, shown in Figure S-2, will help to provide transportation connections between emerging redevelopment areas such as Kakaako Makai, located between Downtown and Ala Moana, and other major activity locations along the IOS alignment. Many of these areas are not currently served with direct transit linkages. The IOS not only provides direct connecting service between these areas, but it will provide a higher level of schedule reliability due to priority treatments for the BRT service along the IOS alignment. Regular buses in mixed traffic cannot operate faster than other traffic and can be delayed depending on traffic conditions; but the BRT, in semi-exclusive lanes and with the use of an advanced priority signal system, can operate with less interference from general traffic. Therefore, the resulting travel time savings and reliability of such travel are significant.

The IOS will have travel time between its end points in Downtown (Aala Park stop on Beretania Street) and Waikiki (Kapahulu Avenue stop) via the Ala Moana Boulevard corridor of between 28 and 33 minutes, including average wait and walk times. Of this, between 25 and 30 minutes are in-vehicle time. This compares to travel time between these same points using either the existing Route 19, Route 20, or Route 42 local buses of approximately 38 to 48 minutes.

The IOS will provide transportation connections between emerging redevelopment areas such as Kakaako Makai, located between Downtown and Ala Moana, and other major activity locations along the IOS alignment. The IOS will provide new direct service to Waikiki for the Kakaako Makai and Victoria Ward areas. Currently, transit riders need to walk from the Kakaako Makai area to Ala Moana Boulevard to catch a local bus to



LEGEND:

Component	Existing	BRT/Refined LPA	Long Range Plan (Non-BRT)
Zipper Lane AM Peak	●●●●●	▮▮▮▮▮▮▮▮▮▮	
Zipper Lane PM Peak		▬▬▬▬	
Local Street Bus Priority			
New/Upgraded Transit Centers	○	○	○
Park-and-Ride	▲	▲	▲
Special Ramp		■	
In Town-BRT System		▬	
HOV Facility	▮▮▮▮▮▮▮▮▮		▮▮▮▮▮▮▮▮▮

SOURCES:
City and County of Honolulu and Parsons Brinckerhoff, June 2003.

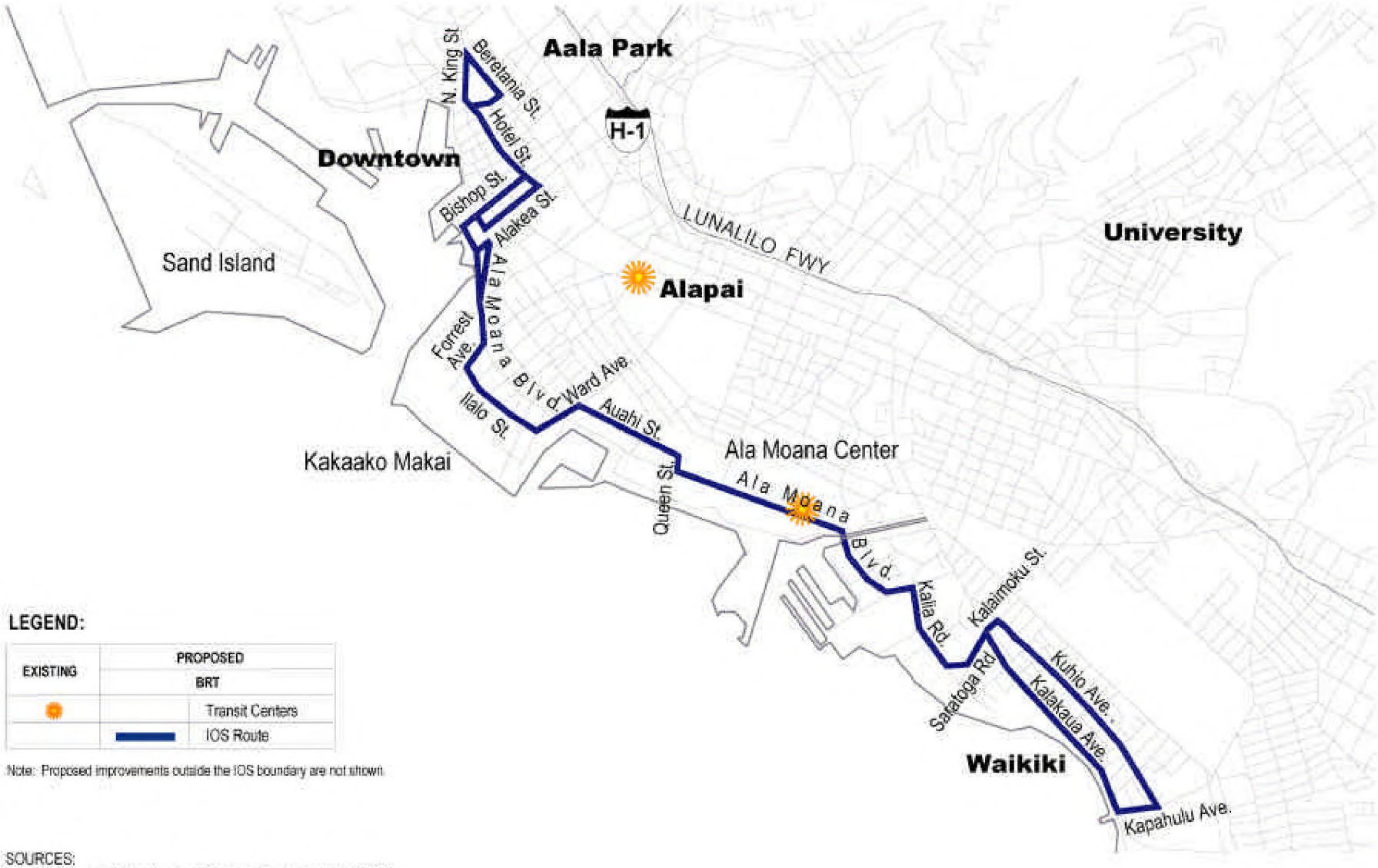
Note: Proposed improvements outside the primary transportation corridor are not shown.

N

Scale: 0 1 2.0 mi

Refined Locally Preferred Alternative (LPA)

Figure S-1



Initial Operating Segment (IOS)

Figure S-2

Waikiki area, and transit riders need to transfer from a Route 6 to a Route 8 bus to reach Waikiki from the Victoria Ward area. From the UH Medical School in Kakaako Makai, the IOS will provide an eight (five in-vehicle) minute travel time to the Union Mall stop in Downtown, while it takes 16 (9 in-vehicle) minutes today, including walk time and average wait time for TheBus.

Similarly, travel time using the IOS between the the Waikiki Trade Center (Kuhio/Seaside stop) and Harbor Square (Alakea Street stop) will be 21 (18 in-vehicle) minutes versus 33 (30 in-vehicle) minutes using today's transit service. Travel time between Ward Centre (Kamakee Street stop) and Waikiki Beach is 33 (27 in-vehicle) minutes by today's transit service. This travel time will be shortened by 15 minutes to 18 (15 in-vehicle) minutes with the IOS, including average wait and walk times.

Convenient connections between the IOS and circulator, local, and express buses will occur at Aala Park, along Hotel Street in Downtown, at Ala Moana Center, and along Kuhio Avenue in Waikiki. The BRT stops will provide more amenities than the typical bus stop with 13-inch high raised platforms that provide level boarding to low-floor vehicles and covered waiting areas with seating, lighting and landscaping. Some variations will occur due to space limitations. A rendering of the proposed Hobron Stop in Waikiki is provided in Figure S-3A; a drawing of a typical stop is shown in Figure S-3B. Some of the stops will also be provided with signs indicating the waiting time until the next vehicle arrives. The entire IOS system will be designed in compliance with the Americans with Disabilities Act (ADA).

1) IOS Alignment

The IOS alignment shown in Figures S-4A and S-4B depict the locations of priority lanes and the 20 transit stops along the route. Travelling in the Koko Head direction, the IOS will start at Aala Park and proceed to the Hotel Street Transit Mall via Beretania and River Streets. From Hotel Street it will continue in the makai direction on Bishop Street to Aloha Tower Drive. From Aloha Tower Drive, the IOS will continue in the Koko Head direction on Ala Moana Boulevard and then turn in the makai direction onto Forrest Avenue. It will then turn in the Koko Head direction onto Ilalo Street which becomes Ward Avenue on the mauka side of Ala Moana Boulevard.

From Ward Avenue, the alignment turns Koko Head onto Auahi Street, where the BRT will be in extra-wide semi-exclusive curb lanes that permit the on-street parking to remain. At the Koko Head end of Auahi Street, the route will turn onto the short Queen Street segment to rejoin Ala Moana Boulevard and head Koko Head towards Waikiki. Along Ala Moana Boulevard, between Queen Street and the Ala Wai Canal, the BRT will operate in the curb lane in mixed traffic. Between the Ala Wai Canal and Kalia Road, Ala Moana Boulevard will be reconfigured to allow an additional lane in each direction. These lanes, formed by reducing the median and narrowing the travel lanes, will be semi-exclusive curb lanes shared with local buses, private buses and right-turning vehicles

From Ala Moana Boulevard, the route will turn makai on Kalia Road and enter Fort DeRussy. The route will continue along Kalia Road to Saratoga Road, with Kalia Road being widened by one lane in each direction between the Hale Koa Hotel and Saratoga Road. The alignment will turn mauka on Saratoga Road. The BRT will be in semi-exclusive lanes on Kalia Road from Maluhia Street to Saratoga Road, and on Saratoga Road from Kalia Road to Kalakaua Avenue. At the intersection of Saratoga Road and Kalakaua Avenue, the route will split into a one-way couplet on Kalakaua and Kuhio Avenues. The Koko Head-bound transit lane will be semi-exclusive, using the makai curb lane of Kalakaua Avenue until after the stop at Uluniu Street where it will transition mauka in mixed traffic to turn onto Kapahulu Avenue. The Kapahulu Transit Stop will be on the Koko Head side of Kapahulu Avenue and will not affect Kapiolani Park. The transit stop improvements at this site will be within the 18-foot-wide public sidewalk area. The return loop will turn Ewa onto Kuhio Avenue, and the Ewa-bound buses will operate in mixed traffic using the mauka curb lane of Kuhio Avenue. The alignment will turn onto the Ewa side of Kalaimoku Street to return to Saratoga Road. Within Waikiki, the BRT lanes will mostly be curbside semi-exclusive lanes shared with local buses and private transit vehicles. The exceptions

View of Discovery Bay at Ala Moana Blvd. and Hobron Lane.

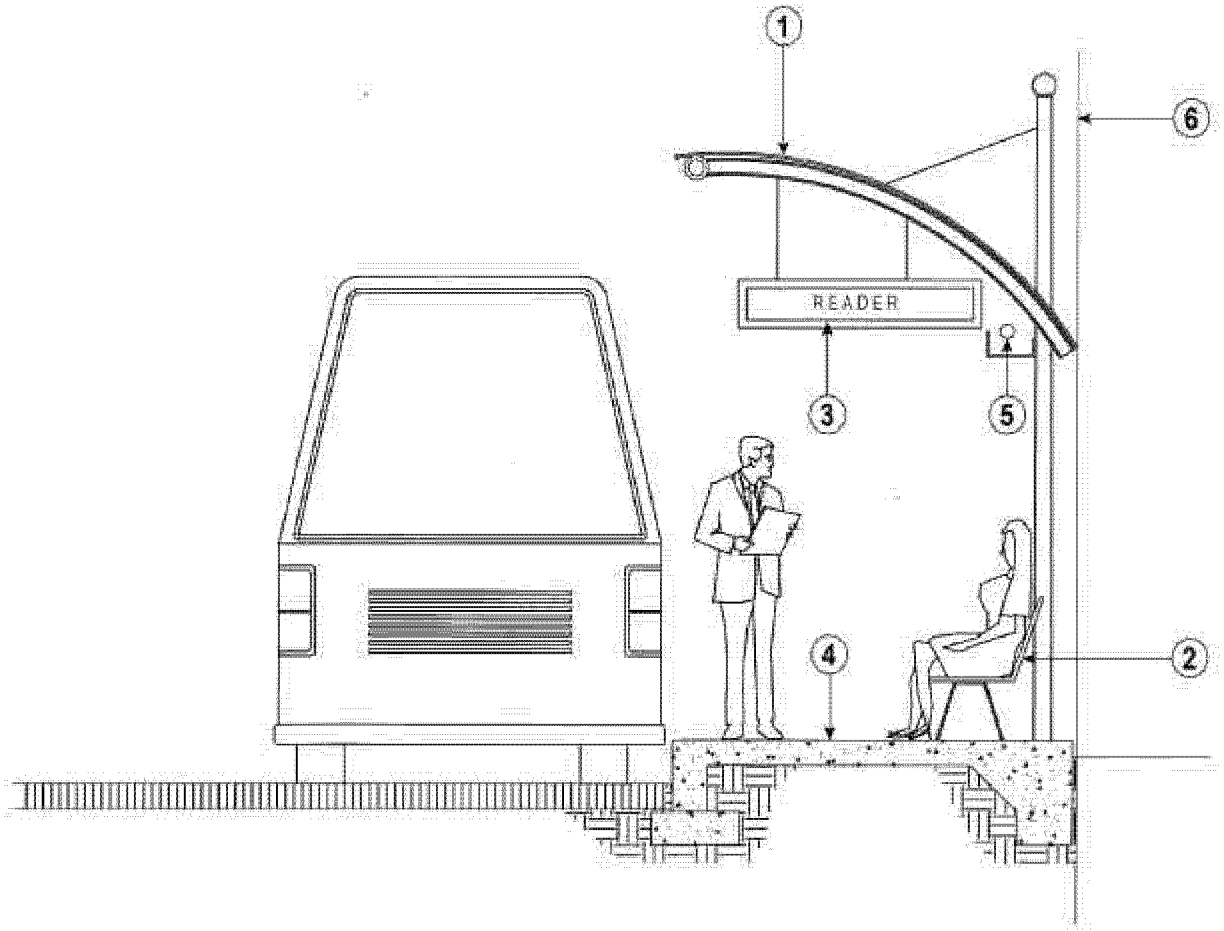
A typical stop, such as this one at Discovery Bay on Hobron Lane, will have a canopy designed to allow visual connection, benches, trash receptacle, information board, and a 13-inch platform for level boarding.

BRT canopies fronting the Discovery Bay retail facade would be located to work with entrances and allow visual connections.

SOURCE:
Urban Works, 2001.

Renderings of Hobron Lane Stops

Figure S-3A



NOTES:

1. Canopies To Be Located Intermittently Over Lenght Of Platform
2. Seating (Typical)
3. Transit Stop Locator Sign (2-Sided)
4. 13"-High Raised Platform
5. Light Fixtures
6. Right-Of-Way or Edge of Building

A typical stop will have a canopy designed to allow visual connection, benches, trash receptacle, information board, and a 13-inch platform for level boarding.

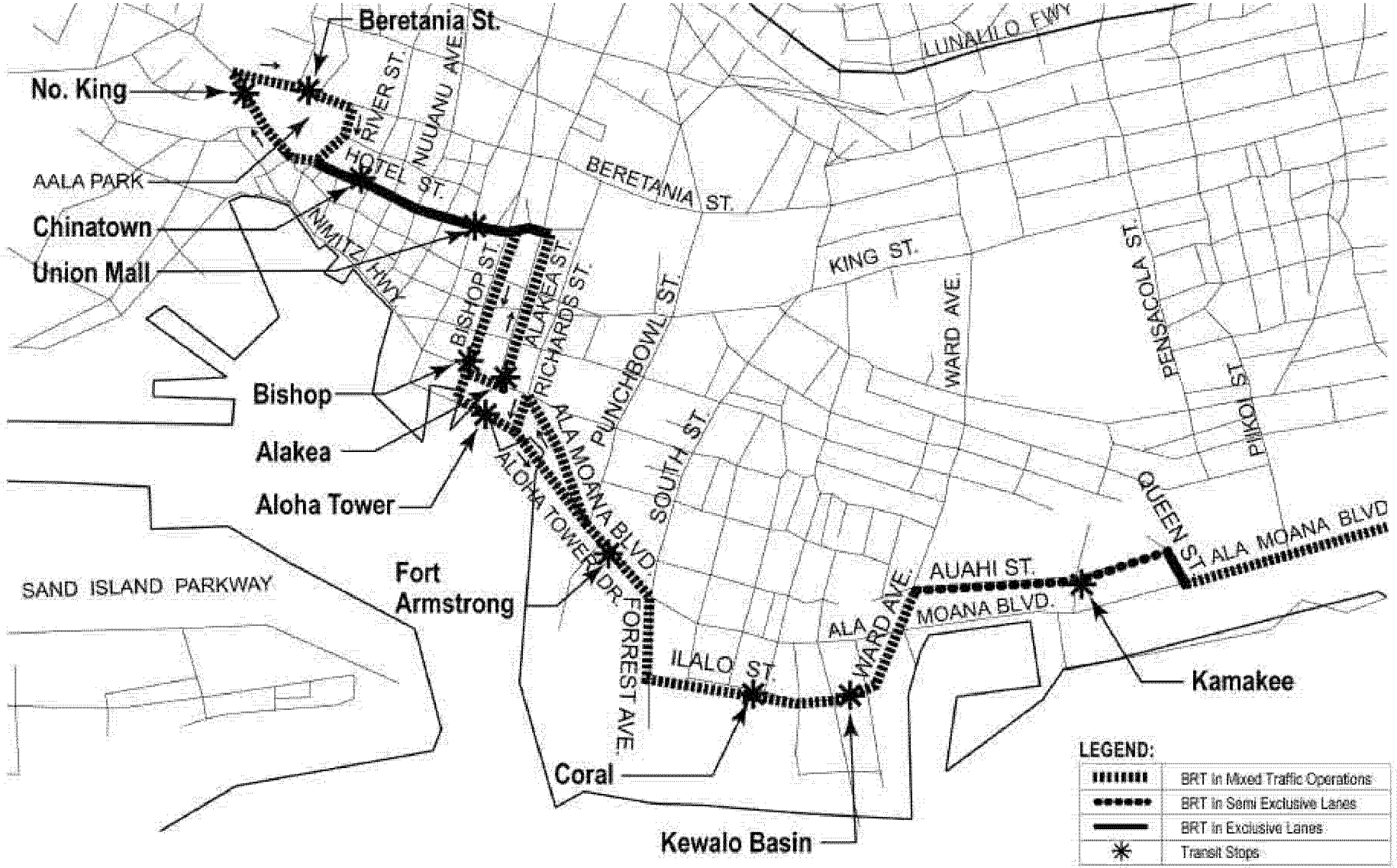
SOURCE:
SSFM International, Inc. 2002

NOT TO SCALE

Typical Section of BRT Stops

Figure S-3B

AR00014849



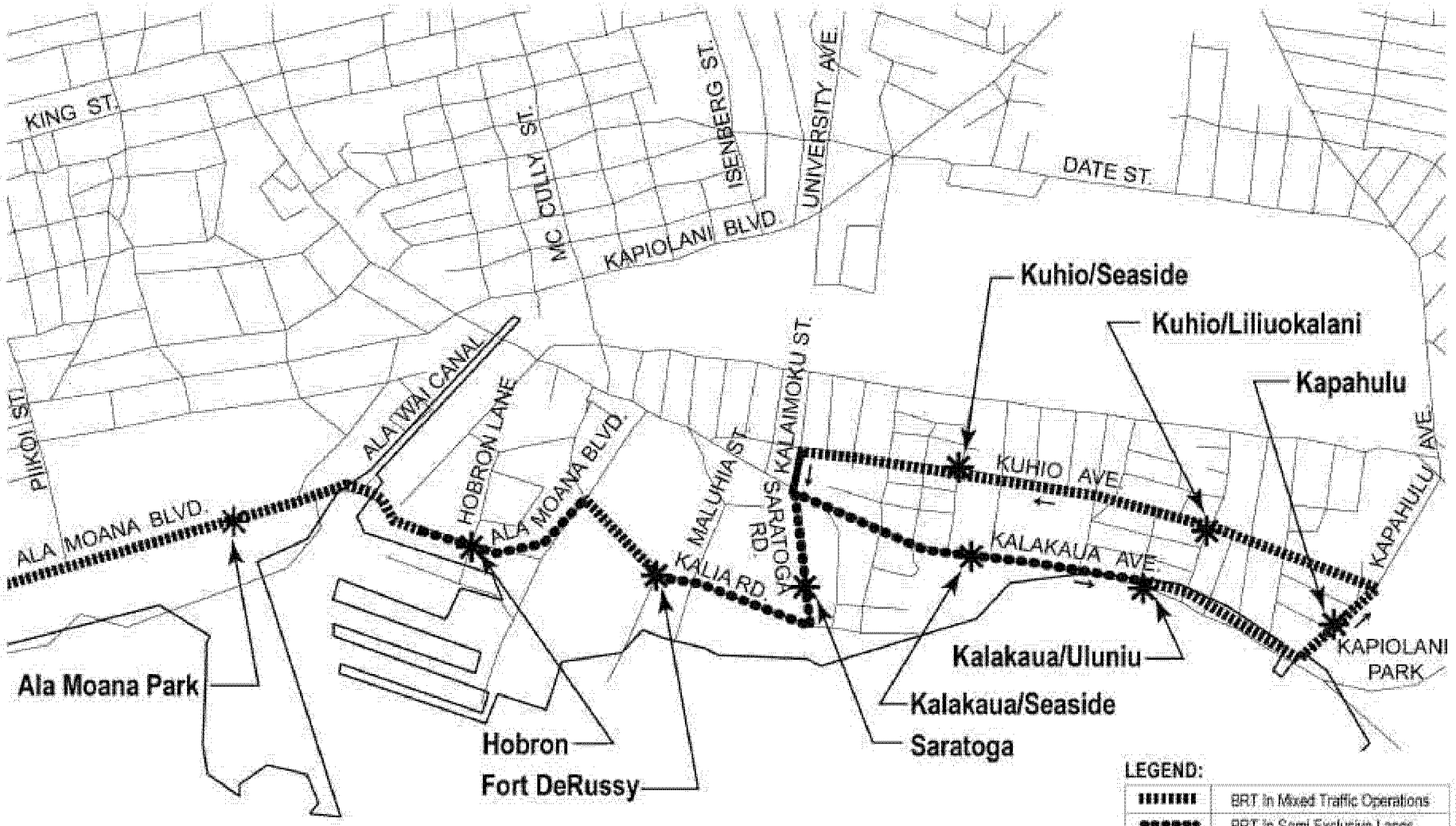
SOURCE:
Parsons Brinckerhoff, May 2002.

Scale: 0 .125 .25 mi

IOS Priority Lanes And Transit Stops

Figure S-4A

AR00014850



SOURCE:
Parsons Brinckerhoff, May 2002.

Scale: 0 .125 .25 mi

IOS Priority Lanes And Transit Stops

Figure S-4B

AR00014851

will be the Kalaimoku contra-flow lane which will be an exclusive BRT lane; and Kapahulu and Kuhio Avenues which will be mixed-flow operations. In the Ewa direction, the IOS will travel Ewa from Kalaimoku Street in Waikiki following the reverse routing described for the Koko Head-bound direction, except that, at the intersection of Bishop Street/Nimitz Highway, the branch will turn Koko Head onto Nimitz Highway, then mauka onto Alakea Street, left on Hotel Street and then travel along Hotel Street to the North King Transit Stop at Aala Park.

2) Places Served

Existing attractions that will be served by the IOS include Chinatown, the Central Business District, Aloha Tower Marketplace, Hawaii Maritime Museum, Piers 10 and 11 cruise ship terminal, Restaurant Row, Kakaako Waterfront Park, Children's Discovery Center, Ward Centre and Entertainment Complex, Ala Moana Center, Ala Moana Beach Park, Fort DeRussy, Kapiolani Park, and major hotels, high-rise residences, offices, and commercial/recreation destinations in Waikiki. Future land uses that would be served include future phases of Aloha Tower Marketplace, a new cruise ship terminal at Pier 2, the University of Hawaii School of Medicine and related bio-medical research facilities, the proposed Hawaii Science and Technology Center, commercial plus retail development at Kewalo Basin, and the Waikikian and Outrigger redevelopment projects in Waikiki.

3) Estimated Cost

The capital cost of the IOS is $48.1 million in 2002 dollars ($50.9 million in YOE dollars). The project is fully funded through a combination of FTA sources matched by City General Obligation bonds. The IOS capital cost will come from a $31.0 million City appropriation (FY 2003) and from two FTA appropriations in FY 2002 and FY 2003 totaling $19.85 million.

The IOS construction is scheduled to be completed by 2005. The FY 2006 system wide bus operating and maintenance (O&M) cost, excluding TheHandi-Van, is estimated to be $119.3 million in 2002 dollars. This is a $264,700 savings because of corollary service changes compared to the No-Build condition. The system wide O&M costs excluding TheHandi-Van in 2006 YOE dollars will be $131.7 million. Similar to today, this will be financed through a combination of passenger fares, FTA formula funds and City general funds.

4) Vehicles

The City plans to use hybrid diesel-electric BRT vehicles for the IOS operation. These vehicles will be electric-powered buses with low floors that match the height of the stop raised platforms and will have traffic signal priority at selected intersections.

The cost of the ten hybrid diesel-electric vehicles that are required for IOS operations is not included in the capital cost of the IOS since the vehicles will be purchased with City (non-Federal) funds as part of the regular fleet replacement program that will occur with or without IOS being implemented. Because some of the existing bus routes are proposed to be modified to avoid service duplication with the IOS, the total size of the City's bus fleet will not change with implementation of the IOS and will remain at 525 buses, including the ten hybrid diesel-electric vehicles.

5) Construction Elements

Construction is scheduled to commence before the end of 2003, with completion projected in 2005. The major construction elements of each roadway segment are summarized in Table S-1. The improvements include construction of transit stops, concrete bus lanes, pavement rehabilitation, transit priority traffic signal improvements, roadway widening, landscaping, utility relocations, modifications to wheelchair ramps, sidewalks, and driveways, signage, striping, roadway lighting, and other work related to signal prioritization.

TABLE S-1
SUMMARY OF MAJOR ITEMS OF WORK

Roadway Segment	Major Items of Work
Hotel Street	Curbside modifications at Bishop St. and Alakea St. intersections.
Bishop Street	Transit stop construction with a 13-inch high raised platform.
Alakea Street	Transit stop construction with a 13-inch high raised platform.
Aloha Tower Drive	Transit stop construction with a 13-inch high raised platform and pavement rehabilitation.
Richards Street Extension	Pavement rehabilitation.
Nimitz Highway/Ala Moana Blvd.	Transit stop construction with 13-inch high raised platforms and pavement rehabilitation
Ilalo Street	Transit stop construction with 13-inch high raised platforms.
Auahi Street	Transit stop construction with 13-inch high raised platforms, concrete pavement construction, and pavement rehabilitation.
Queen Street	Concrete pavement construction.
Ala Moana Boulevard (Ala Wai Canal to Kalia Road)	Roadway widening to accommodate two semi-exclusive bus lanes, transit stop construction with 13-inch high raised platforms, concrete pavement construction, pavement rehabilitation, utility relocations, landscaping, and roadway lighting improvements.
Kalia Road	Roadway widening to accommodate two semi-exclusive bus lanes, transit stop construction with 13-inch high raised platforms, concrete pavement construction, pavement rehabilitation, landscaping, and roadway lighting improvements.
Saratoga Road	Transit stop construction with 13-inch high raised platforms, concrete pavement construction, and pavement rehabilitation.
Kalakaua Avenue	Concrete pavement and transit stop construction with 13-inch high raised platforms.
Kapahulu Avenue	Transit stop construction with a 13-inch high raised platform.
Kuhio Avenue	Transit stop construction with 13-inch high raised platforms, concrete pavement construction between Seaside Avenue and Kanekapolei Street, concrete pavement rehabilitation, roadway lighting improvements, and traffic signal modifications.
Kalaimoku Street	Concrete pavement construction.

Source: Parsons Brinckerhoff, June 2003.

The transit stops will provide more amenities than the typical bus stop, with 13-inch high raised platforms for level boarding of low-floor vehicles and covered waiting areas with seating, lighting, landscaping and canopies, which will be attractive and unobtrusive. Some variations will occur due to space limitations. The architectural design of transit stops in sensitive areas, such as the Kalakaua/Uluniu and Kapahulu Transit Stops, will involve public and agency consultation. All of the transit stops will be designed in compliance with the Americans with Disabilities Act.

6) IOS Environmental Impacts and Mitigation Measures

The transportation and environmental impacts of the IOS were evaluated within a 2006 time frame, a year after its expected implementation. Table S-2 summarizes the transportation and environmental impacts that are anticipated in 2006 as a result of implementing the IOS. It should be noted that no significant adverse impacts will result from implementing the IOS. The permits and approvals listed in Section S.7 will be required specifically for the IOS. The two unresolved issues described in Section S.8 that apply to the development of the IOS are the architectural design of transit stops and tree relocations.

EXECUTIVE SYNOPSIS OF REFINED LPA

The Refined LPA for the primary transportation corridor is comprised of the Regional BRT and the In-Town BRT. The DTS will be the implementing agency for the entire Refined LPA. A memorandum of agreement will be formalized with the SDOT for improvements to the H-1 Freeway that are part of the Regional BRT. The following provides a brief description of the Refined LPA components.

The Regional BRT component of the corridor makes more effective use of the existing priority lanes on the H-1 Freeway by extending the existing morning peak period zipper lane three miles from Radford Drive onto the H-1 airport viaduct to the Keehi Interchange (Nimitz Highway), and by constructing an approximately 6.5 mile long outbound, afternoon peak period contraflow zipper lane between Radford Drive and the Waiawa Interchange. Approximately 90 buses per hour will be using the zipper lanes during the peak periods to by-pass the congestion on H-1. To provide access for larger numbers of riders, the Regional BRT also includes constructing an exclusive BRT access-controlled ramp at Luapele Drive, and incorporating bus priority treatments to planned freeway ramps at Palailai Interchange in Kapolei and at the North-South Road Interchange. When combined, the existing and planned priority lanes on H-1 will create a 17.5 mile long transit/HOV corridor free from the congestion in the general purpose lanes.

The BRT improvements will be complemented by a series of other improvements identified in the Oahu Regional Transportation Plan (ORTP), including a network of 20 transit centers and park-and-rides. Seven of these transit centers and/or park-and rides already exist, two will be added as part of the Refined LPA, and eleven new ones will be added as part of the hub-and-spoke program independent of the Refined LPA. The Kapolei Transit Center and North-South Road Park-and-Ride are the two hub transit centers that will be built as part of the Refined LPA. (Note: An interim Kapolei Transit Center off of Kamokila Boulevard has been completed recently.) Other projects assumed to be implemented separately that will complement the Refined LPA include the addition of an express lane in both directions for high occupancy vehicles on H-1 between Kapolei and Managers Drive. A peak period contra-flow lane for buses in the median of Kamehameha Highway between Waimano Home Road and Salt Lake Boulevard in Pearl City/Aiea is also assumed to be implemented.

The In-Town BRT will be a 12.8 route mile high-capacity transit system providing frequent service and direct access to major activity destinations and residential neighborhoods throughout Honolulu's urban core. It consists of four segments: Middle Street to Iwilei, Iwilei-Waikiki via Kakaako Makai, Downtown to University of Hawaii–Manoa (UH-Manoa), and the Kakaako Mauka Branch. The In-Town BRT will have 32 transit stops, and will operate in exclusive median lanes or curbside contra-flow lanes along 38 percent of its length. Along the rest of the alignment it will operate in semi-exclusive curb lanes (29 percent) or in mixed traffic (33 percent). Semi-exclusive lanes are shared with local buses and right-turning vehicles (as well as private buses in Waikiki). During peak periods, the In-Town BRT vehicles will operate at two-minute intervals between Middle Street and Downtown, at four-minute intervals between Downtown and UH, and at three-minute intervals between Downtown and Waikiki (where both Kakaako branches are combined). Off peak service will generally be half as often.

TABLE S-2
SUMMARY OF IOS IMPACT ASSESSMENTS AND MITIGATION MEASURES

	IOS IMPACTS	MITIGATION
TRANSPORTATION FACTORS		
Transit	Because the IOS will serve the same function as the existing Route 8, Route 8 will be replaced by the IOS. The segments of Routes 55, 56, and 57 between Downtown and Ala Moana Center are also redundant and these routes will terminate in Downtown, allowing quicker turnaround of these buses. The IOS is forecast to result in approximately 4,500 new transit riders per day in 2006.	None necessary.
Urban Intersections	Very little change in intersection operations are proposed, so there will be minimal changes in delays at intersections and in the LOS at any of the intersections analyzed along the IOS route.	None necessary.
Parking	The IOS will displace unrestricted parking spaces on Queen Street (5 marked spaces), Saratoga Road (5 marked spaces), and Kapahulu Avenue (12 marked spaces).	There are large existing off-street parking facilities with reserve capacity near each location where on-street parking will be removed. Therefore, parking displaced by the IOS will not be replaced.
Loading Zones	Preliminary engineering for the IOS has taken into consideration the need to avoid impacts to as many passenger and freight loading zones as possible. The IOS will not result in any loading zone impacts.	None necessary.
Bicycling	Due to the provision of exclusive and semi-exclusive BRT lanes, the IOS will improve bicycle transportation on Auahi Street, portions of Ala Moana Boulevard, Kalia Road, Saratoga Road in the vicinity of Fort DeRussy, and a segment of Kalakaua Avenue between Saratoga Road and Uluniu Street.	None necessary.
Pedestrians	All transit stops will be in conformance with the Americans with Disabilities Act (ADA). The IOS will contribute to an improved urban walking experience through the use of environmentally friendly transit vehicles that produce less noise and air pollution.	None necessary.

TABLE S-2 (CONTINUED.)
SUMMARY OF IOS IMPACT ASSESSMENTS AND MITIGATION MEASURES

	IOS IMPACTS	MITIGATION
ENVIRONMENTAL FACTORS		
Land Use, Development, and Plan Consistency	Consistent with HCDA Kakaako Makai Plan. Serves UH Medical School and related facilities currently under construction.	None necessary.
Business and Residential Displacements	Displacement of some landscaped areas at Fort DeRussy. No buildings or structures will be affected.	Landscaping removed at Fort DeRussy will be replaced with similar landscaping nearby along Kalia Road.
Neighborhoods and Environmental Justice	The IOS will not cause disproportionately high and adverse health or environmental effects on any minority and low-income population and will provide many positive transit benefits.	None necessary.
Visual Character	IOS transit stops located in areas with high visual or aesthetic value may cause adverse visual impacts. Landscaping altered by the project may cause changes to the visual environment at certain locations.	IOS transit stops located in areas with high visual or aesthetic value will be designed to be appropriate in each setting and where possible will enhance the aesthetics of the area. Any existing landscaping affected by the IOS will be mitigated through provision of new street plantings and tree replacements.
Air Quality	No impact.	None necessary.
Noise/Vibration	No impact.	None necessary.
Ecosystems – Faunal Species	White terns (State of Hawaii endangered species on Oahu) occur in the IOS corridor, but no adverse impacts are expected.	Even though no adverse impacts are expected, a survey of the IOS corridor will be conducted for white terns and their eggs prior to completing final design. If sensitive trees or areas are identified, they will be monitored immediately prior to and/or during construction. Relocation and/or trimming of trees will be coordinated with the City's Department of Parks and Recreation.
Ecosystems – Botanical Resources	Construction of the IOS will displace 47 trees, of which nine are "notable" trees on Kalia Road. Some tree trimming will be required. No designated exceptional trees will be affected.	A tree preservation plan will be prepared. Affected trees will be relocated near their original locations or replaced in accordance with the tree preservation program.
Water	No impact.	None necessary.
Energy Consumption	No adverse impact.	None necessary.

TABLE S-2 (CONTINUED.)
SUMMARY OF IOS IMPACT ASSESSMENTS AND MITIGATION MEASURES

	IOS IMPACTS	MITIGATION
Historic and Archaeological Resources	Development of the Alakea and Saratoga Transit Stops may "adversely affect" lava rock curbs, which are considered historic. Development of the IOS is not expected to uncover buried archaeological resources or native-Hawaiian ancestral burial sites.	In accordance with the project's Memorandum of Agreement, DTS will work with the State Historic Preservation Division (SHPD) and other interested parties to explore using the lava rock curb material in the design of the two IOS transit stops affected. If burials or archaeological artifacts are uncovered during construction, work will stop and the SHPD will be notified immediately for appropriate action.
Parklands	The IOS will generally improve transit access to parks in the study area. Transit stops adjacent to parks could adversely affect their visual and aesthetic characteristics, even though no park property is used.	The transit stops near parks will require special design treatment.
Indirect and Cumulative	Substantial land use changes are not anticipated. The IOS may stimulate planned transit-oriented commercial and residential development. The IOS will be an important addition to the transportation infrastructure, supporting planned developments in Kakaako and Waikiki. The IOS and other planned developments will enhance short- and long-term employment.	None necessary.
Construction Impacts	Construction impacts will be temporary. Construction activities on streets will likely result in temporary traffic delays, detours, and bus stop relocation. Construction equipment and vehicles delayed by construction activities will increase emissions of fugitive dust and automotive air pollutants, such as carbon monoxide. Construction equipment also emits relatively high noise emissions, which could disturb nearby residences, schools, office buildings, and other noise-sensitive uses. Impacts to surface and groundwater resources are not expected due to best management practices. Utility services may be disrupted causing inconveniences to affected residences and businesses.	The Construction Management Program for the IOS will address all standard construction-period traffic and transportation issues. In addition, contractors will be required to comply with all applicable air quality, noise, and water quality laws. Substantial planning, including resident and business notifications, will be conducted to minimize inconveniences should interruptions in utility service be required.

Source: Parsons Brinckerhoff, Inc., April 2003.

The In-Town BRT will use environmentally friendly, state-of–the-art technologies to provide fast, reliable service to riders. Its advanced features include electric powered, 60-foot long articulated buses with low floors that match the height of the station raised platforms and traffic signal priority at selected intersections that allow the BRT to miss getting caught just as the traffic light is changing. These advanced features, coupled with limited stop spacing (between ¼ and ½ mile apart), priority lane treatments, and very frequent service will offer superior service to choice riders.

The In-Town BRT system will use hybrid diesel-electric powered vehicles, unless a superior and cost-effective alternative is found. The DTS continues to track development of an all-electric touchable embedded plate system; and its impacts are discussed in this FEIS. However, no decision on using such as system would be made until it is proven revenue service-worthy and additional environmental review is conducted.

S.1 PURPOSE AND NEED FOR ACTION

Oahu's primary transportation corridor, which stretches from Kapolei in the west to the UH-Manoa and Waikiki in the east (see Figure S.1-1), is the location of the vast share of the total travel occurring on the island. Existing transportation infrastructure in this corridor is overburdened handling current travel demand. Further investment is required to improve the effectiveness of the corridor's transportation infrastructure. Transportation improvements in the corridor will enhance mobility, reduce travel time and improve the quality of life for Oahu's residents and visitors.

Through continual public involvement and technical analysis, the following set of purposes and needs for a major transportation investment in the primary transportation corridor was identified:

1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile.
2. Support desired development patterns.
3. Improve the transportation linkage between Kapolei, which is designated as a "New City", and Honolulu's Urban Core.
4. Improve the transportation linkages between communities in the Primary Urban Center (PUC) to increase the attractiveness of in-town living.

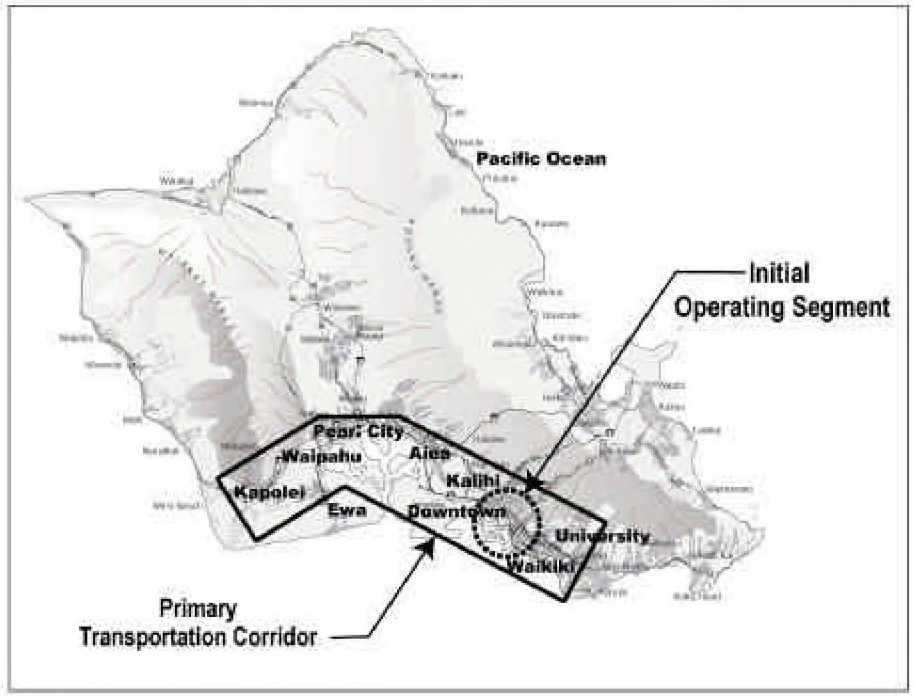
S.2 ALTERNATIVES CONSIDERED AND THEIR EVOLUTION

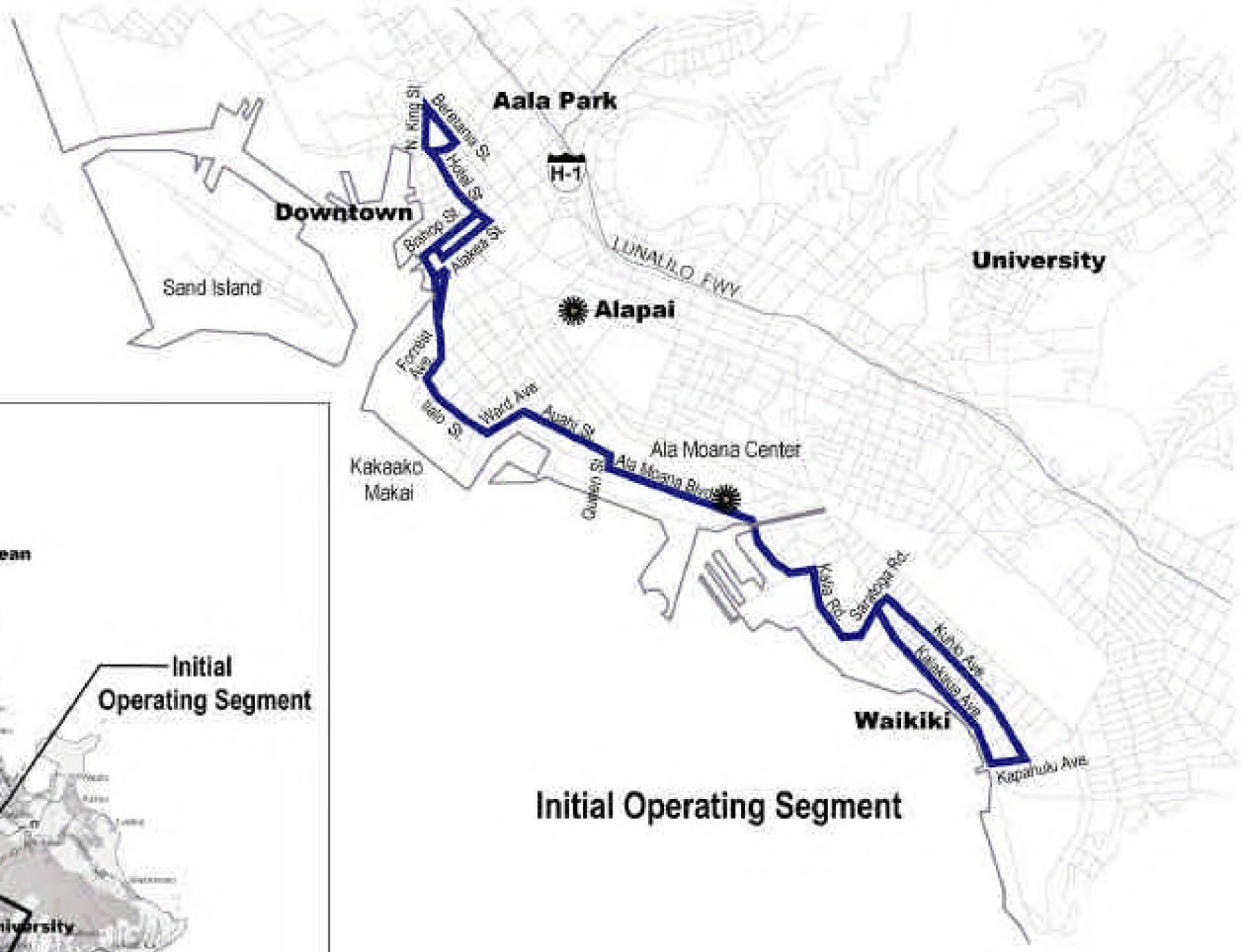
S.2.1 Evolution of the Alternatives

The alternatives which are presented in the FEIS evolved through an iterative process wherein a wide range of options was progressively analyzed in increasing detail. The final result of this extensive process is the Refined LPA.

Even after the initial alternatives were narrowed down to the three best fit alternatives presented in the MIS/DEIS, these alternatives underwent continual refinement using input from many sources, including the Oahu Trans 2K meetings, formal "scoping" meetings held for the general public and agencies, working group meetings and additional agency and public input.

The first step in the evolution of the alternatives involved combining information gathered from public and agency outreach with the results of prior studies in order to identify a broad range of alternatives for consideration. Public input was obtained primarily through the 21st Century Oahu Visioning Process and its transportation component, Oahu Trans 2K. The 21st Century Oahu Visioning process began in September 1998, and consisted of a series of neighborhood-based community meetings designed to enhance





SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

N Scale: 0 2 4 mi

Primary Transportation Corridor and Initial Operating Segment

Figure S.1-1

opportunities for public input in planning a vision for Oahu's communities. The Oahu Trans 2K process involved four rounds of public meetings in 19 districts throughout the island and a fifth round islandwide meeting. In addition, a series of meetings were held with working groups representing six geographic subdivisions of the primary transportation corridor. Since project inception, over 500 meetings have been conducted for Oahu Trans 2K, community working groups, and outreach with agencies, individuals, businesses, institutions, and organizations.

In addition to public and agency input, alternatives were developed based on site visits, review of City and State plans, existing and projected land use and travel demand patterns, environmental constraints, and other research. Transportation alternatives were configured to support land uses that would facilitate transit ridership and contribute to sustainable, livable communities. This will maximize the efficiency and effectiveness of the transportation system, and create a mutually supportive transportation system and land use development pattern.

In August 2000 the Primary Corridor Transportation Project, Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) was published. Three alternatives were analyzed in the MIS/DEIS: the No-Build Alternative, Transportation System Management (TSM) Alternative, and Bus Rapid Transit (BRT) Alternative.

Following publication of the MIS/DEIS, there was a public review period from August 23, 2000 to November 6, 2000. In addition to the MIS/DEIS public hearing, five special public hearings were conducted by the Honolulu City Council Transportation Committee. On November 29, 2000, the Honolulu City Council selected the BRT Alternative as the LPA.

At the time of adopting the LPA, the City Council directed the Department of Transportation Services (DTS) to continue public dialogue on the project. Community working groups were formed to provide a forum for open dialogue between project sponsors and neighborhood, civic, business, government and other organizations to discuss environmental and transportation issues, and refinements to project proposals. The working groups were generally organized by the following geographic areas: Pearl City/Aiea, Aliamanu/Salt Lake/Foster Village, Kalihi, Downtown/Kakaako, Mid-Town/University, and Waikiki.

Working Group members were responsible for attending meetings, reporting back to their representative organizations, and bringing the resulting feedback to the Working Group meetings. The Pearl City/Aiea, Kalihi, Downtown/Kakaako, and Mid-Town/University Working Groups each had a series of meetings between February and June 2001. The Waikiki Working Group meetings were conducted from August 2001 through April 2002. The Aliamanu/Salt Lake/Foster Village Working Group met in July 2002.

As a result of the working groups and comments received on the MIS/DEIS, the DTS proposed refinements to the LPA to include new and modified components (see Figure S-1), which the City Council endorsed on August 1, 2001. The refinements included the addition of a new In-Town BRT branch to serve Aloha Tower Marketplace and the Kakaako Makai area; realignment of a small segment of the UH-Manoa Branch from Ward Avenue to Pensacola Street between South King Street and Kapiolani Boulevard, with a new transit stop along South King Street at Pensacola Street; and elimination of the proposed H-1 Regional BRT ramps at Kaonohi Street and Radford Drive to be replaced by a new H-1 BRT ramp near Aloha Stadium at Luapele Drive. Additionally, it was decided that the Kakaako Mauka Branch and Kakaako Makai Branch would use Alakea and Bishop Streets instead of Richards Street in response to comments received from area residents. Realigning the Kakaako Mauka Branch also provided the opportunity for two new transit stops, one on Alakea Street and one on Bishop Street.

Since the refinements were being proposed after completion and distribution of the MIS/DEIS and because the refinements were anticipated to have environmental impacts that were not disclosed in the MIS/DEIS, a Supplemental Draft Environmental Impact Statement (SDEIS) was prepared. A public hearing on the SDEIS was held on April 20, 2002.

In response to comments received on the SDEIS during the public comment period, several additional refinements have been incorporated into the Refined LPA. These include substituting North-South Road for Kunia Road as the park-and-ride location serving the Ewa Plains area; replacing the direct connector ramps at Kapolei, Kunia (now North-South Road), and Middle Street with less costly BRT priority treatments at these same locations using existing and planned freeway ramps; and, shifting a short section of the Kakaako Makai branch alignment to Forrest Avenue rather than Channel Street as the connection between Ala Moana Boulevard and Ilalo Street.

Implementation of the Refined LPA will be phased over 14 years starting in late 2003 with the award of a construction contract for the Initial Operating Segment (IOS) between Iwilei and Waikiki.

S.2.2 Description of Alternatives

The three alternatives analyzed in the FEIS are the following:

No-Build Alternative. This alternative includes existing transportation facilities and conversion of the present predominately radial bus system to a hub-and-spoke configuration. Expansion of the bus fleet to maintain current transit service levels, especially in developing areas such as Kapolei, is also part of this alternative. The No-Build Alternative serves as a reference point against which the build alternatives can be compared in terms of environmental impacts.

Transportation Systems Management (TSM) Alternative. Typically, TSM strategies are low to moderate cost improvements designed to increase the efficiency of the existing transportation infrastructure. TSM measures include elements such as traffic engineering and signalization, transit operational changes and modest capital improvements. Besides being a potential alternative for selection by decision makers, the TSM Alternative serves as a benchmark against which more extensive build alternatives can be evaluated for their cost-effectiveness.

The TSM Alternative includes reorientation of the present bus route structure from a predominantly radial service pattern to a hub-and-spoke network, extension of the H-1 A.M. zipper lane, bus priority treatments on selected arterials, and a significantly expanded bus fleet over the No-Build Alternative. There would also be two additional transit centers and one more park-and-ride facility with the TSM Alternative. Additionally, many of the other transit centers would be larger compared to those proposed under the No-Build Alternative.

Refined LPA (BRT Alternative). The Refined LPA will provide a more balanced transportation system than the present automobile-oriented transportation infrastructure. A hub-and-spoke bus network would connect with the Regional and In-Town BRT elements, integrating the hub-and-spoke network with a fast, high-capacity transit system spanning the primary transportation corridor. The In-Town BRT will provide high capacity, frequent, in-town transit service throughout Honolulu's Urban Core (Middle Street, through Downtown Honolulu, to UH-Manoa and Waikiki). The Regional BRT will incorporate regional transit routes that utilize bus priority facilities (express lanes) on the H-1 Freeway, creating an H-1 Freeway BRT Corridor, with priority treatment for regional transit vehicles at selected ramps and arterials to facilitate movement between the H-1 Freeway BRT Corridor and the corridor's transit centers. The Refined LPA will utilize expanded capacity, increased frequency, and enhanced service quality to attract commuters and mid-day riders.

The Regional BRT will complement and augment the In-Town BRT. At the Middle Street Transit Center, some of the regional local buses will terminate, while others of the regional express routes will continue into town using the In-Town BRT priority lanes. The Regional BRT vehicles that continue into town will continue along the UH-Manoa and Kakaako Mauka branches and operate as In-Town BRT vehicles to the termini of these routes. With this approach, many passengers commuting from outlying areas will not have to transfer at Middle Street. Through integrated planning and use of timed-transfers at outlying transit centers, route duplication will be reduced, system capacity will be increased and schedule reliability will be improved. These

operational attributes are key ingredients of effectiveness. Together, the Regional BRT and In-Town BRT will provide an integrated transit system enhancing mobility within the primary transportation corridor, and between the primary transportation corridor and other parts of the island.

So that the evaluation of impacts and costs focus strictly on the differences in the proposed transit improvements, each of the three alternatives also include all of the highway improvement projects which are contained in OMPO's Transportation for Oahu Plan 2025 (TOP 2025).

S.2.3 Capital Costs

Table S.2-1 shows the capital cost estimates for the transit portion of the alternatives, by project component. These cost estimates include the normal replacement of buses, TheHandi-Van vehicles, and BRT vehicles over the 23-year analysis period. For comparison purposes, the costs in this section are presented in constant Year 2002 dollars, while the financial analysis in Section S.4 of this Executive Summary and Chapter 6 of this Final Environmental Impacts Statement are in year of expenditure dollars. Therefore, the readers of this document are advised to be cognizant of the differences in the two ways that costs are being presented.

TABLE S.2-1
CAPITAL COST SUMMARY-2003 TO 2025
(MILLIONS OF 2002 DOLLARS)

Project Component	No-Build	TSM	Refined LPA	
			With Hybrid-Electric	With EPT*
Bus & TheHandi-Van Acquisition	$394.1	$461.9	$512.5	$512.5
Regional Bus Rapid Transit	$10.3	$78.9	$203.0	$203.0
In-Town Bus Rapid Transit	$0.0	$0.0	$239.4	$322.7
Total	**$404.4**	**$540.8**	**$954.9**	**$1,038.2**

Sources: Parsons Brinckerhoff for No-Build and TSM Alternatives. Rider Hunt Levett & Bailey Ltd. for Refined LPA. June 2002.
* EPT: Embedded Plate Technology

It is estimated that the total capital costs over the 23-year period would range from about $404 million for the No-Build Alternative, to $955 million for the Refined LPA with hybrid diesel-electric buses, in constant 2002 dollars. The EPT would add $83 million in cost. As shown in Table S.2-1, the biggest cost item for all the alternatives would be the acquisition of buses and TheHandi-Van vehicles to serve island-wide transit needs. The cost of the BRT components represents only about half of the total cost of the Refined LPA, or $442 million.

S.2.4 Operating and Maintenance (O&M) Costs

Table S.2-2 presents annual operating and maintenance (O&M) cost estimates for the alternatives. The costs are for the forecast year 2025, assuming full development of each alternative, and are expressed in 2002 dollars.

It is estimated that O&M costs for the No-Build Alternative in 2025 would be about $121 million (in 2002 dollars). This compares to current operating costs for the existing bus system of about $118 million. Comparing the TSM Alternative to the No-Build Alternative, O&M costs in 2025 are estimated to increase to about $140 million as a result of the increase in the size of the bus fleet. The $151 million O&M cost in 2025 for the Refined LPA includes two components, the cost of expanded systemwide bus service and the cost of the In-Town BRT. None of the dollar costs described here include TheHandi-Van operations.

TABLE S.2-2
ANNUAL OPERATING AND MAINTENANCE COST SUMMARY, 2025
(MILLIONS OF 2002 DOLLARS, EXCLUDING THEHANDI-VAN O&M COSTS)

Alternative	Bus O&M Cost	In-Town BRT O&M Cost	Total Project O&M Cost
No-Build	$120.7	--	$120.7
TSM	$139.8	--	$139.8
Refined LPA	$144.3	$7.0	$151.2

Source: Parsons Brinckerhoff, June 2002.

S.3 IMPACTS AND MITIGATION

This section presents a summary of the significant transportation and environmental impacts associated with each of the alternatives.

S.3.1 Transportation Impacts

Because of the geographical constraints of the primary transportation corridor (mountains on one side and ocean on the other), travel is concentrated within a linear corridor and focused onto a limited number of parallel highway and arterial streets. Even with the planned widenings and other improvements to the highway system, because of projected growth, congestion is forecast to get even worse than today. Community feedback from outreach activities such as the Oahu Trans 2K workshops has indicated that grade-separated structures and extensive roadway widening as means to reduce traffic congestion are unacceptable. Instead people indicated that they are in favor of solutions that increase the people carrying capacity of the existing transportation infrastructure. Building upon the already successful bus system in Honolulu by taking it to the next level with a bus rapid transit system is a key element in solving future travel needs while preserving Oahu's idyllic environment. The Refined LPA will offer a fast, efficient travel mode through the congestion for those choosing to travel by transit, because transit vehicles will use the un-congested exclusive and semi-exclusive transit lanes.

A significant indicator of regional travel conditions is Vehicle Hours of Delay (VHD), which is the difference in vehicle travel time between free-flow and congested conditions. In 2025 the Refined LPA is projected to have substantially lower daily VHD than the No-Build or TSM Alternatives (17.3 percent less VHD than the No-Build Alternative and 14.8 percent less VHD than the TSM Alternative). This reduced VHD is indicative of less congestion on roadways.

In 2025 the Refined LPA is forecast to attract 20 percent more riders than the No-Build Alternative and 12 percent more riders than the TSM Alternative. This translates into over 51,400 more transit trips per day than the No-Build and 33,200 more than the TSM Alternative. The greater number of transit riders for the Refined LPA represents less cars on the road. Less cars would result in a notable reduction in traffic congestion. The benefits would accrue to all traffic on the freeway by shortening the length of time the freeway is congested.

Additionally, expanding the zipper lane operation to the P.M. peak period will benefit transit riders and carpool occupants with 2 or more riders by providing a less congested path through the heavily traveled H-1 Freeway corridor. An analysis determined that the contra-flow zipper lane could be implemented during the P.M. peak period, while maintaining acceptable traffic flow in the off-peak direction lanes on H-1.

Traffic impacts were analyzed at intersections all along the In-Town BRT alignment where the BRT will be operating in exclusive or semi-exclusive lanes. The findings are the following:

Dillingham Boulevard Corridor. After one lane in each direction converted to exclusive transit use, intersection level of service (LOS) for the Refined LPA will be equal to or better than for the No-Build and TSM Alternatives. This is possible primarily because the Refined LPA is projected to achieve sufficiently higher transit usage to decrease the peak hour, peak direction traffic along Dillingham Boulevard by almost 3,000 vehicles per hour (vph).

South King Street Corridor. Peak traffic during the P.M. peak period in 2025 will continue to be Koko Head-bound along South King Street. Similar to the Dillingham Boulevard Corridor, there is projected to be a reduction of traffic volume along the section of South King Street where the BRT will operate due to the diversion of some auto drivers to transit. This diversion will enable the Refined LPA to perform at comparable intersection LOS to the No-Build and TSM Alternatives, after the conversion of two general-purpose lanes; one to semi-exclusive transit use and one to exclusive transit use.

Kapiolani Boulevard Corridor. The Refined LPA will convert two general-purpose traffic lanes to exclusive transit lanes in the middle of Kapiolani Boulevard generally between Pensacola Street and Atkinson Drive, leaving two general-purpose traffic lanes in each direction regardless of the time period. Contra-flow coning for all traffic will continue Koko Head of Atkinson Drive, but will be discontinued between Atkinson Drive and South Street. The Refined LPA is projected to have a worse intersection LOS in 2025 compared to the No-Build and TSM Alternatives, mainly due to the two fewer lanes available to carry traffic in the peak direction. It is projected, however, that Kapiolani Boulevard traffic will still be operating acceptably for urban peak period conditions in the section with BRT lanes.

Ala Moana Boulevard Corridor. During both A.M. and P.M. peak periods in 2025, the Ala Moana Boulevard/Atkinson Drive intersection is projected to be congested for all the alternatives. Given the physical constraints of Ala Moana Center on the mauka side and Ala Moana Regional Park on the makai side, roadway widening is not an option. Only the Refined LPA with its semi-exclusive lane Koko Head-bound and exclusive lane Ewa-bound will allow BRT vehicles, local buses, and tour buses to bypass the congestion and continue to provide service for their patrons. For the section of Ala Moana Boulevard between the Ala Wai Canal and Kalia Road, the Refined LPA proposes a 5-10 foot widening by reducing the width of the raised median and narrowing the existing traffic lanes to provide an additional lane in both Ewa-bound and Koko Head-bound directions. The additional lanes would be for BRT vehicles, local buses, tour buses and trolleys, and right turning vehicles. Because of the added capacity of these lanes the congestion will be substantially less with the Refined LPA for all traffic along this section.

Kalia Road Corridor. The Refined LPA proposes to widen Kalia Road by one lane in each direction, with these lanes being designated as semi-exclusive lanes. BRT vehicles, local buses, private buses, and vehicles turning right into driveways on Kalia Road will be able to use these lanes. Because of the new lanes proposed for Kalia Road, traffic operations are projected to be better in 2025 with the Refined LPA compared to the No-Build or TSM Alternatives.

Kalakaua Avenue Corridor. Kalakaua Avenue will be used as the Koko Head-bound segment of the counter-clockwise BRT Loop within Waikiki. During normal peak traffic hours Kalakaua Avenue is not projected to be congested with any of the alternatives. During special events, which occur frequently in Waikiki, Kalakaua Avenue will continue to be congested. During these times the semi-exclusive curb lane will allow the BRT vehicles, tour buses, and trolleys a clearer path through the congestion. During special events such as parades where all or sections of Kalakaua are closed, the BRT vehicles will be re-routed to Kuhio Avenue.

Kuhio Avenue Corridor. The Waikiki Livable Communities project has proposed that the existing sidewalks be widened on Kuhio Avenue. With sidewalk widening, what would remain is enough roadway width to provide two traffic lanes in one direction, one traffic lane in the other direction, and space for median left-turn lanes at selected locations. Turnouts would be provided for commercial truck and tour bus loading and for local bus stops. In the Refined LPA, two lanes would be oriented in the Ewa-bound direction with the

curb lane designated as a semi-exclusive lane for BRT vehicles, local City buses, tour buses, trolleys, and right-turning vehicles. Koko Head-bound there would be a single general-purpose traffic lane.

On-Street Parking Impacts

With regard to parking impacts, an efficient transit system will encourage people to use transit rather than drive automobiles. As a result, parking demand in the PUC with the Refined LPA should decline along the transit spine. Where on-street parking is removed to permit transit lanes for the Refined LPA, new neighborhood parking facilities will be considered to replace the on-street parking, but only if they meet other livable community objectives and are the result of community-based planning.

Loading Zone Impacts

Minor loading zone impacts will occur with the Refined LPA in Downtown and in Iwilei. There would be no loading zone impacts in Waikiki. For the Downtown and Iwilei loading zones affected, substitute loading areas will be developed and coordinated through a community-based planning process.

Pedestrian Impacts

The Refined LPA will provide benefits for pedestrians in a number of ways. Improved transit will reduce the number of autos circulating, and environmentally friendly transit vehicles will produce less noise and air pollution. These factors will contribute to an improved urban walking experience. Additionally, the Refined LPA will positively affect the pedestrian environment by providing new Americans with Disabilities Act (ADA) ramps, and safer crosswalks and sidewalks in the vicinity of the BRT stops.

S.3.2 Environmental Impacts

The environmental analyses that were conducted looked at those parameters pertinent to transportation projects, including potential impacts on sensitive resources and issues identified during the scoping process. Environmental analyses also included other studies required by law.

Land Use

The In-Town BRT will provide a permanent, fixed transportation infrastructure within the urban core of Honolulu. Its high level of transit service will facilitate transit-oriented development, a mix of residential and commercial uses in a pedestrian friendly environment, which is consistent with the Draft Primary Urban Center Development Plan (May 2002).

The Refined LPA will provide the strengthened transit connection between Kapolei and the PUC that is necessary to facilitate continuing business, commercial and residential development in Kapolei and the Ewa Plain. The City's Ewa Development Plan (1997) calls for the development of Kapolei as a "New City".

In contrast, it is unlikely that the TSM or No-Build Alternatives would encourage and support transit-oriented development in the urban core, and these alternatives would be generally less supportive of land use goals of the Ewa Development Plan than the Refined LPA.

Economic Impacts During Construction

Analyses were conducted to estimate the effects of project construction on the local economy. Using the Hawaii Department of Business, Economic Development, and Tourism forecasting methodology it is estimated that the elements of the No-Build and TSM Alternatives involving construction would generate 279 and 713 person-years of construction jobs, respectively. In contrast, it is estimated that 3,737 person-years of

construction jobs would be created through implementation of the Refined LPA. Since it is expected that construction of the Refined LPA would be financed in part by federal discretionary (New Starts) grants, 1,106 person-years of construction jobs resulting from the Refined LPA would be "new" jobs that would not occur in the absence of the Refined LPA. The No-Build and TSM Alternatives are assumed to utilize federal formula funds, and therefore would not qualify for FTA New Starts funding. As a result, no new construction jobs would result from the use of federal dollars.

In addition to considering the jobs created directly in construction, analyses were also conducted to estimate the indirect and induced jobs. The indirect and induced person-years of jobs that would be created by the No-Build and TSM Alternatives are estimated to be 704 and 1,797, respectively, whereas it is estimated that the Refined LPA would create 9,418 indirect and induced person-years of jobs.

Economic Impacts Directly Attributable To Transit System

It is estimated that the Refined LPA will increase employment for bus drivers (bus and In-Town BRT) and mechanics from 1,181 today to 1,760 by 2025, an increase of approximately 600 jobs or 49 percent. The expanded fleet and new BRT system will also generate additional administrative and management jobs.

Displacements

None of the alternatives will cause displacement of any residences; however, one property will be affected under the Refined LPA. Kapalama Makai, an apartment complex on the corner of Dillingham Boulevard and McNeill Street (1514 Dillingham Boulevard), will need to have its driveway reconfigured and will lose one to two parking stalls.

The No-Build Alternative, TSM Alternative, and the Refined LPA all assume the construction of the North-South Road park-and-ride facility. The North-South Road Park-and-Ride will require about four acres of agricultural land currently used by an active farm, but the farm would remain viable. There would be no other displacements with the No-Build and TSM Alternatives. The Refined LPA will affect 22 businesses or institutions, which will experience minor losses of parking and/or land area due to street widening.

Equity And Environmental Justice

The Refined LPA will not cause disproportionately high and adverse health or environmental effects on minority and low-income populations. Some of the minority and low-income populations would be located near elements of the Refined LPA, such as the In-Town BRT. However, the alignment was selected to minimize adverse impacts while maximizing travel benefits for the primary corridor's neighborhoods, including those occupied by minority and low-income residents. In addition, the improved transit service provided by the Refined LPA will improve mobility for minority and low-income residents throughout the primary transportation corridor. The No-Build and TSM Alternatives would also not cause disproportionately high and adverse health or environmental effects with respect to minority and low-income populations.

Visual And Aesthetic Resources

The Refined LPA provides opportunities to enhance the urban form, not only in the urban core, but also wherever transit improvements are proposed. Many of the elements of the Refined LPA, such as the In-Town and Regional BRT priority lanes, will involve few physical changes other than to the street surface resulting in little or no visual impact to the existing landscape, regardless of land use. Through the use of streetscape improvements (e.g. sidewalk paving, landscaping, and street lighting) and passenger amenities at BRT stops, the Refined LPA offers an opportunity to enhance the visual quality of the streetscape and improve the pedestrian experience. As a result of the project, there would be a greater sense of visual order and unity because of the physical improvements and landscape treatments along the alignment.

Those project elements potentially causing visual impacts will be designed and landscaped to have the least possible visual impact by blending in with their surroundings. Project elements such as transit centers and transit stops provide urban design opportunities to improve existing streetscapes with cohesively designed architectural elements, landscaping, street furniture, street trees and lighting.

Energy Consumption

The Refined LPA will result in the least amount of direct energy consumption because it would lead to a substantial decrease in the vehicle miles of travel (VMT) by autos. In comparison to the No-Build Alternative, the Refined LPA will reduce energy consumption by about 215,000 barrels of oil in the design year 2025, assuming that hybrid diesel/electric In-Town BRT vehicles are used. In comparison to the TSM Alternative, the Refined LPA will reduce energy consumption by about 250,000 barrels of oil under the same conditions.

Air Quality

Air quality was analyzed at the intersection or microscale level using computer models to predict future carbon monoxide (CO) concentrations. Under worst-case meteorology conditions, all three alternatives would result in CO concentrations above the stringent State ambient air quality standards at most locations or intersections studied. However, it should be noted that the predicted concentrations are probably conservatively high for all scenarios. This is because EPA's projections for emissions from motor vehicles have generally been revised downward since these studies were completed, as discussed in Section 5.5.2.

When the results of the microscale analyses are viewed as a whole, the Refined LPA provides the lowest worst-case carbon monoxide concentrations, although not all areas would benefit. Of the 23 intersections studied, 16 would experience reduced concentrations under the Refined LPA compared to the No-Build Alternative during the AM peak hour, while five intersections would see increases, and two intersections would see no change. The change in concentrations during the PM peak hour would be similar with 15 intersections showing a decrease, six showing an increase, and two with no change. No mitigation is proposed since the overall situation across the project area would improve with the Refined LPA.

The TSM Alternative and Refined LPA would not worsen regional air quality in comparison to the No-Build Alternative.

Noise and Vibration

Future noise levels along the alignment of the In-Town BRT component of the Refined LPA will be lower than with the TSM and No-Build Alternatives because of the use of electric or hybrid-electric vehicles, which produce substantially less noise than standard diesel buses.

There are no severe noise impacts projected for any sites along the Refined LPA alignment. Assuming use of hybrid diesel/electric vehicles, moderate noise impact is projected for one location on the In-Town BRT alignment, the Bishop Garden Apartments at 1470 Dillingham Boulevard in Kalihi. If the embedded plate technology is chosen, no impacts are projected.

Using the diesel and hybrid diesel/electric technologies in the Regional BRT, the BRT vehicles traveling to and from the Aloha Stadium Transit Center are expected to result in moderate noise impacts at the Puuwai Momi Apartments on Salt Lake Boulevard and Kamehameha Highway (99-102 Kalaloa Street), and at least one single-family residence on Luaole Street, including 4509 Luaole Street where a noise measurement was taken. The final design phase will include studies to determine more specific noise impacts.

Ground vibration levels caused by the rubber-tired electric or hybrid diesel/electric bus would be minimal and would not exceed FTA criteria. Therefore, no vibration impacts are expected under any alternative.

Ecosystems

No state or federally listed, proposed, or candidate threatened or endangered plant or animal species, except the white tern, is likely to be affected within areas proposed for construction under the Refined LPA. The State of Hawaii lists the Oahu population of the white tern (*Gygis alba*) as endangered. White terns are also a federally protected species under the Migratory Bird Treaty Act. No impacts to these birds are expected under the No-Build and TSM Alternatives.

A tree survey and impact analysis for the Refined LPA identified that 154 street tree impacts may occur along the In-Town BRT alignment, of which 34 trees were classified by the project's qualified certified arborist as being notable trees, or trees deemed important to the urban landscape character. The impacts will mostly involve moving trees further back from the curb along those sections of the alignment where the street needs to be widened. Wherever a tree needs to be removed, a similar species as that tree will be planted in its place. No tree impacts are expected under the No-Build and TSM Alternatives.

Water

No major impacts on water resources are expected for any of the proposed alternatives. Increasing transit ridership would reduce non-point source water pollution generated by automobiles.

Historical Resources

Adverse effects to archaeological sites are not expected under the No-Build and TSM Alternatives. Also, there are no historic-period resources (historic buildings, structures and objects constructed or erected after western contact) or traditional cultural properties within the Area of Potential Effect (APE) of either alternative.

Under the Refined LPA, construction of the In-Town BRT may require excavation about two to three feet in depth along the alignment if embedded plate technology is used. This activity would have a moderate to high probability of uncovering subsurface archaeological resources along certain segments, such as in Chinatown, Kakaako, Ala Moana and Waikiki. The APE of the Refined LPA contains several historic-period resources. Most of them will not be adversely affected because right-of-way is not needed at these sites, nor will they be affected by being in proximity to transit stops. The Refined LPA may cause an "adverse effect" on Chinatown, the Hawaii Capital Historic District and Thomas Square because these resources have visual integrity, which may be affected by the transit stops. Other historic-period resources that may be adversely affected by the Refined LPA include the Kapiolani Boulevard historic landscape because of tree relocations, and lava rock curbs, which are considered historic by the State Historic Preservation Division (SHPD), because they will be temporarily removed during construction of certain transit stops.

Parklands

In general, the Refined LPA, and to a lesser extent the TSM Alternative, would enhance the value of the park and recreational resources in the study area by improving their accessibility for transit users. For example, the Kakaako Makai Branch of the In-Town BRT would provide improved transit service to recreation resources in the Kakaako Makai Community Development District.

Construction Impacts

The Refined LPA will have the most new construction, therefore having the greatest impact of the three alternatives. For example, transit lanes will be constructed along the alignment of the In-Town BRT within existing streets. Construction impacts will be temporary and detailed mitigation plans will be developed, including a plan for maintenance of traffic. An archaeological contingency procedure will be prepared, should unanticipated resources be encountered during construction.

The TSM Alternative would include some construction, but mainly involves operational changes to the bus system. The No-Build Alternative has the fewest impacts, because it assumes no additional construction from the future No-Build condition.

S.3.3 Mitigation Commitments

This section summarizes the mitigation measures proposed by the City to minimize any adverse impacts.

Relocations

Since federal funds would be used to assist project construction, the project would be subject to provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR Part 24, 42 U.S.C. 4601, et seq.). Although no displacement of businesses or residents is expected, should it become necessary, State law on relocations is provided in Hawaii Revised Statutes (HRS) Chapter 111, Assistance to Displaced Persons.

Fair market compensation for land, buildings and uses would be provided to property owners directly affected by right-of-way requirements. For properties that would experience partial displacement but not relocation, mitigation would be provided at project cost, such as reconstruction of a driveway or parking area.

Visual and Aesthetic Resources

Project elements such as transit centers and transit stops will be designed to visually blend in with their surroundings. In particular, transit stops in or near Chinatown, the Hawaii Capital Historic District, Thomas Square, Kapiolani Boulevard, Waikiki Beach, Kapiolani Park and UH-Manoa are considered to be in potentially sensitive areas and will be designed with sensitivity to be compatible with their surrounding contexts, based on public input and conformance with appropriate design standards.

Noise

Noise mitigation for the Bishop Garden Apartments (1470 Dillingham Boulevard) is not deemed to be feasible and will not be included as part of this project, because a wall at this location would impair driver visibility and interfere with pedestrian and traffic movements. Interior sound insulation of the affected apartment units could be a reasonable alternative to a noise barrier, including air-conditioning installation and replacement of windows and doors facing the BRT alignment.

Property line noise barriers would be effective in mitigating the noise impacts to the Puuwai Momi Apartments (99-102 Kalaloa Street). A 10-foot high noise barrier wall is proposed along the affected section of Salt Lake Boulevard. Noise barriers would not be feasible in mitigating noise impacts at the single-family residences on Luaole Street (including, but not limited to, 4509 Luaole Street), because a barrier would likely interfere with traffic and pedestrian movements. Interior sound insulation and installation of air-conditioning in affected homes could be a reasonable alternative to a noise barrier for this area. The extent of potential noise impacts to other residences near the Luapele Ramp will be studied in the final design phase.

Ecosystems

A survey of the project area will be conducted for white terns and their nests prior to final design. Sensitive trees and areas will also be monitored immediately prior to and/or during construction activities that involve tree relocation, removal, and/or trimming. All monitoring will be coordinated with the U.S. Fish and Wildlife Service (USFWS). DTS will also coordinate tree trimming with the City's Department of Parks and Recreation (DPR), which has standard procedures to avoid impacts to white terns and their eggs.

A tree preservation program will be developed in conjunction with a qualified certified arborist to mitigate unavoidable impacts. The tree preservation program will be in accordance with standard procedures used by the DPR, and community input will play a role in identifying key components of the program. On-site tree relocation is the preferred mitigation option wherever possible, but land acquisition by the City may be necessary. If a tree must be relocated off-site, the project team under direction from DTS and input from the appropriate working groups will identify suitable sites for relocating each individual tree. DTS will replace trees that must be removed altogether at a minimum of a one-to-one ratio.

The City's Department of Design and Construction (DDC) also has plans for a construction project that will affect trees on Kapiolani Boulevard. In order to ensure that the monkeypod trees have enough time to recover in between construction projects, any In-Town BRT-related construction activities affecting those trees on Kapiolani Boulevard will not be started until at least two years have passed since the completion of the DDC project.

Water Resources

Although no impact on water resources is expected, specific sediment and erosion control measures would be resolved during final design, and a best management practices plan would be developed to control roadway contaminants resulting from additional impervious surfaces as a preventative measure.

Historic/Archaeological Resources

A memorandum of agreement (MOA) pursuant to Section 106 of the National Historic Preservation Act has been prepared and is included in Appendix A. The MOA specifies that archaeological monitoring will be conducted during excavation in areas along the In-Town BRT alignment with moderate to high levels of probability of uncovering archaeological resources. Potential impacts would mostly be related to construction of the embedded plate technology.

The MOA will also contain stipulations that require consultation with the SHPD and other stakeholders on the design of those transit stops that may adversely affect historic properties. The consultation will focus on the type, number and size of structures, architectural style, and protection of important viewsheds and historic characteristics of affected properties.

Parking and Loading Zones

It is expected that an efficient transit system will encourage people to use transit rather than driving private vehicles. Parking demand in the PUC is expected to decline in general under the TSM Alternative and Refined LPA, but especially along the In-Town BRT alignment in the Refined LPA.

In areas where a large concentration of on-street parking spaces will be affected by In-Town BRT operations, replacement parking in new off-street parking facilities will be considered, but only if they meet other livable community objectives and are the result of community-based planning. Areas of concern will be addressed on a case-by-case basis during the project's final design phase.

As with parking impacts, loading zone impacts will be addressed in the final design phase using community-based planning as an integral part of the decision-making process.

Bicycle Facilities

The Refined LPA will not affect the provision of bicycling facilities as identified in the State's Bike Plan Hawaii: A State of Hawaii Master Plan (May 2003), which updates the 1994 version of the plan, and the City's Honolulu Bicycle Master Plan (April 1999). In addition, the Refined LPA will allow curbside semi-exclusive

BRT lanes at various locations to be shared with cyclists. Specific mitigation that is proposed includes widening the curbside lanes on Dillingham Boulevard from 14 feet to 18 feet between Middle Street and Waiakamilo Road to provide more room for cyclists and motorists to share the lane, and providing a bike lane on South King Street between Alapai Street and Pensacola Street.

Construction

Coordination between project planners and the community will continue during the development and implementation of a Construction Management Plan and Mitigation Program that would address in detail the project's construction and construction impact mitigation.

A public information program will include education; the presence of representatives at public gatherings; informational materials describing the construction process and its progress; dissemination of information on significant construction activities, detours, and recommended alternative routes; and information pertinent to methods of minimizing public inconvenience. A community advocacy forum will be retained through the construction process to facilitate solutions to specific construction impacts and concerns expressed by affected businesses, organizations and individuals.

An overall project Maintenance of Traffic Plan will include measures to reduce the need for total street closures during construction, detailed traffic flow patterns and traffic detours, measures to minimize the impact of loss of parking during construction, and programs to increase transit ridership.

Detailed pedestrian flow patterns will be developed and alternative pedestrian routes will be provided around or through construction areas to provide access to all adjacent structures and affected facilities.

Access to docks, terminals and other water-related facilities will be maintained through close coordination with all public agencies having harbor-related responsibilities.

Abatement measures tailored to the source will be implemented for the control of fugitive dust, emissions, noise and vibration.

Specific plans will be developed during final design for:

- Sediment and Erosion Control Plan incorporating Best Management Practices (BMPs) to control runoff;
- Spill Containment Control and Countermeasure Plan;
- Solid Waste Management Plan;
- Contaminant Management Plan detailing contaminant handling procedures and remedial response actions; and
- Emergency Response Plan to establish procedures should contaminated materials be encountered.

If a burial or archaeological artifact is uncovered during construction, work will stop and the SHPD will be notified immediately and the procedures detailed in the MOA will be followed.

S.4 FINANCIAL ANALYSIS AND COST-EFFECTIVENESS ANALYSIS

A comprehensive financial analysis was conducted to identify the major differences in capital and operating costs among the alternatives. The analysis also identified the timing and level of financial commitments needed from federal and local sources, and assessed the City's ability to operate and maintain the transportation network. The financial plans were developed based on the assumptions that the full scope of each alternative must be completed without raising taxes, and that the City's high bond rating must not be affected.

Funding would be sought from multiple federal and local sources. Construction schedules would be phased according to the availability of funds. Therefore, the construction schedule would be flexible.

To determine the adequacy of funding sources for the capital and operating requirements of the alternatives, major existing revenue sources were examined. Costs were then compared to the revenues projected to be available from these sources over the 14-year period of Fiscal Year (FY) 2003 to FY 2016 which is the period within which all of the capital improvements, except vehicle replacements and an additional bus maintenance facility in the Refined LPA and TSM Alternatives would be implemented. Costs and revenues were also compared over the 23-year period of FY 2003 to FY 2025. The City and County of Honolulu's fiscal year extends from July 1 through June 30.

Capital Cost Financing

The Bus Rapid Transit (BRT) systems in the Refined LPA will be implemented between FY 2003-2016. Over the 14-year implementation period, the capital cost of the Refined LPA BRT Program is projected to be $487.6 million in Year of Expenditure dollars (YOE $). Of this total, $243.2 million will be for the In-Town BRT and $244.4 million will be for the Regional BRT. If EPT was to be implemented, $129.1 million in YOE $ would be added to the capital cost.

Also included in the Refined LPA's financial analysis are the capital costs required for the acquisition and replacement of the entire bus and TheHandi-Van fleet and other system-wide improvements. These amount to $426.0 million (in YOE $) over the 2003 - 2016 period in which the Refined LPA BRT Program is implemented. For the 2003 through 2025 forecasting period used for environmental analyses in this FEIS the capital cost of the bus and TheHandi-Van acquisition and replacement program and other system-wide improvements is projected to be $723.3 million (in YOE $). The fleet would be replaced twice during this time period. The total estimated capital cost for the Refined LPA including vehicle acquisition and system-wide improvements is therefore $1.04 billion for the period 2003 through 2016, and $1.34 billion for the period 2003 through 2025. These costs are in YOE dollars.

Table S.4-1 summarizes the capital funding required by source for the No-Build Alternative, TSM Alternative, and Refined LPA without EPT over the 14-year, FYs 2003-2016 implementation period. The EPT would add $129 million (YOE) to the cost of the Refined LPA.

TABLE S.4-1
FUNDING SOURCES FOR CAPITAL COSTS, BY ALTERNATIVE
FISCAL YEARS 2003- 2016 (YOE $, 000)

	NO-BUILD	TSM	Refined LPA*
CAPITAL SOURCES			
Federal Transit Administration			
Sec. 5307 UZA Formula	$143,200	$152,513	$222,514
Sec. 5309 FGM	$20,839	$20,839	$20,839
Sec 5309 Bus Capital	$8,665	$8,665	$38,370
Sec. 5309 New Starts	--	--	$177,464
Federal Highway Funds			
FHWA	--	$11,985	$139,659
Local Funds			
G.O. Bonds *	$138,899	$259,48	$314,755
TOTAL CAPITAL FUNDS	**$311,602**	**$453,486**	**$913,600**

Source: Sharon Greene & Associates, November 2002.
YOE = Year of Expenditure
*Without embedded plate technology

The alternatives differ with regard to their relative reliance on individual funding sources. Some sources, such as FTA Section 5307 UZA Grant and Section 5309 FGM Grant are common to all alternatives and are relatively comparable in terms of funding levels. Other sources such as FTA Section 5309 New Starts, GO Bonds, and BRT fare revenues, are specific to the TSM Alternative and/or Refined LPA.

In accordance with City Council policy guidance, the financial plan was designed to accommodate as much federal funding as possible. City General Obligation (GO) bonds would be used to fund the balance of the cost of these alternatives. The financing plan focuses on the initial capital implementation period (through the year 2016). All of the amounts shown are in YOE dollars.

About $172.7 million of funding for the No-Build Alternative would come from Federal Transit Administration (FTA) formula grants. About $138.9 million would be from issuing City GO bonds.

Financing for the TSM Alternative would require $259.5 million in GO bonds and another $182.0 million in FTA formula grants. About $12.0 million would be needed from federal highway sources.

The Refined LPA would require $291.1 million in FTA formula funds and $242.0 million in FTA New Starts grants. A total of $369.9 million in GO bonds would be issued. Federal highway funds would provide another $139.7 million, for the Regional BRT improvements.

No other major capital projects for the City would be deferred if either the TSM Alternative or Refined LPA were selected. One condition of the financial analysis was that adequate capital improvement funds remain for other City projects.

Operating and Maintenance Financing

Estimates of operating and maintenance (O&M) costs were based on the proposed transit fleet and travel characteristics under each alternative. The budget for bus and paratransit operations during FY 2002 was about $130.3 million. Using constant year 2002 dollars for comparison, under the No-Build Alternative, $135.4 million would need to be budgeted in FY 2017; the TSM Alternative would cost an estimated $145.8 million in FY 2017 to operate; and under the Refined LPA, the estimated operating cost would be $157.4 million. Expressed in YOE dollars, the corresponding O&M costs in 2017 would be $196.0 million for the No-Build Alternative, $211.2 million for the TSM Alternative and $228.0 million for the Refined LPA.

Table S.4-2 shows the amount of General Fund Revenues and other revenues by source would be required to pay for the O&M costs in the selected representative years of 2007 and 2017.

Annual Debt Service Required

The average annual debt service payments required on post-2003 bond issues for the No-Build and TSM Alternatives are $10.0 million and $13.8 million, respectively. The average annual debt service payment required for the Refined LPA is $17.7 million.

FTA Cost-Effectiveness

The Federal Transit Administration measures a project's cost-effectiveness by comparing the cost of a transit investment in relation to its ability to attract new riders to transit. Table S.4-3 shows the factors used to develop the FTA's Cost-Effectiveness Index (CEI). This index is used by FTA only to compare projects throughout the country, and is not an indicator of costs and benefits.

TABLE S.4-2
FUNDING SOURCES FOR O&M COSTS, BY ALTERNATIVE
FISCAL YEARS 2007 AND 2017 (YOE $, 000)

	NO-BUILD	TSM	Refined LPA
FY 2007 OPERATING REVENUES			
Passenger Fares (Bus)	$37,195	$37,252	$39,199
TheHandi-Van Fares	$1,705	$1,705	$1,705
FTA Sec. 5307 UZA Funds (Preventive Mtnce.)	$18,760	$19,995	$12,838
General Fund Revenues (for transit support)	$93,632	$94,519	$105,645
TOTAL O&M REVENUES	**$151,292**	**$153,471**	**$159,387**
FY 2017 OPERATING REVENUES			
Passenger Fares (Bus)	$49,976	$51,649	$57,621
TheHandi-Van Fares	$2,346	$2,346	$2,346
FTA Sec. 5307 UZA Funds (Preventive Mtnce.)	$16,114	$16,114	$11,133
General Fund Revenues (for transit support)	$127,608	$141,093	$156,885
TOTAL O&M REVENUES	**$196,045**	**$211,202**	**$227,984**

Source: Sharon Greene & Associates, November 2002.
YOE = Year of Expenditure

TABLE S.4-3
FACTORS USED TO DEVELOP FTA COST-EFFECTIVENESS INDEX

Factor	Alternative		
	No-Build	TSM	Refined LPA
Annualized Capital Cost (2002 dollars)	$ 28,760,000	$ 37,910,000	$ 78,400,000
Total Systemwide Annual Operating and Maintenance Cost (2002 dollars)	$ 120,700,000	$ 139,800,000	$ 151,200,000
Total Annualized Cost in Forecast Year (2002 dollars)	$149,460,000	$ 177,710,000	$ 229,600,000
Total Annual Ridership (2025)	80,428,040	86,055,200	96,271,560

Source: Parsons Brinckerhoff, Inc., October 2002.

When alternatives are compared using the CEI, the one with the lower cost per new rider represents the more cost-effective alternative. As shown in Table S.4-4, the cost per new rider for the TSM Alternative is $6.25, which is more than the cost per new rider for the Refined LPA of $5.01. Therefore, the Refined LPA is more cost-effective than the TSM Alternative in terms of capturing new transit ridership over the level of the No-Build Alternative. In comparison to the transit ridership level that would be achieved with the TSM Alternative, the CEI of further boosting transit ridership to the level forecast to occur with the Refined LPA would be $4.52.

S.5 EQUITY/ENVIRONMENTAL JUSTICE

Equity is defined as the fairness of the distribution of costs, benefits, and impacts across various population subgroups. Fairness is determined by the extent to which the costs and impacts are distributed in a way that is consistent with regional goals.

TABLE S.4-4
FTA COST-EFFECTIVENESS INDEX

Factor	Comparison		
	TSM vs. No-Build	Refined LPA vs. No-Build	Refined LPA vs. TSM
Incremental Annualized Cost	$ 28,000,000	$80,000,000	$ 52,000,000
Incremental Annual Ridership	6,000,000	16,000,000	10,000,000
Cost-Effectiveness (incremental cost per new rider)	$ 6.25	$ 5.01	$ 4.52

Source: Parsons Brinckerhoff, Inc., October 2002.

S.5.1 Impact on Low Income Areas

None of the alternatives would cause disproportionately high and adverse health or environmental effects on minority and low-income populations. Since a substantial number of people from minority and low-income populations will be located near elements of the Refined LPA, these populations will see transit service improve substantially and receive those benefits.

S.5.2 Environmental/Socioeconomic Equity and Benefit (Environmental Justice)

The equity and benefit analysis from an environmental and socioeconomic perspective based on the relative balance between environmental and/or socioeconomic impacts and change in transit accessibility shows that the Refined LPA would result in improved transit accessibility relative to the No-Build and TSM Alternatives.

S.6 SIGNIFICANT TRADE-OFFS AMONG ALTERNATIVES

Table S.6-1 summarizes key evaluation factors that best distinguish the alternatives presented in the MIS/DEIS and this FEIS. What is particularly important are the relative trade-offs between the costs of the alternatives and the benefits received for those costs or investments.

S.6.1 No-Build Alternative

The direct costs and level of some environmental impacts of the No-Build Alternative would be the least of all the alternatives studied, while travel delays, energy consumption, air pollutant emissions, and quality of life would be the worst.

Moreover, the No-Build Alternative would not adequately support the purposes and needs of the project. It would not provide a transportation system that would effectively handle present or future levels of travel demand. It would not even maintain current mobility levels. It would not develop attractive travel alternatives to the private automobile, encourage land use development in desired patterns, support implementation of an urban growth strategy that integrates land use and infrastructure planning, nor maintain the existing quality of life. It would only minimally increase the linkage between Kapolei and the Urban Core, and would not improve mobility within the Urban Core.

The No-Build Alternative would cost $404.4 million in 2002 dollars, which includes replacing buses over a 23-year period. Because the No-Build Alternative would not generate new federal funds, no additional employment would be created.

TABLE S.6-1
SUMMARY OF KEY EVALUATION MEASURES

Measures	No-Build	TSM	Refined LPA
CAPITAL AND O&M COSTS			
Total Capital Cost (FY2003-2025) (Millions of 2002 $)	$404.4	$540.8	$954.9-$1,038.2*
Annual Operating and Maintenance Cost at Full System Operation (Millions of 2002 $)	$120.7	$139.8	$151.2
Impact on City Budget (Average Annual Costs for Debt Service and O&M Net of Fare Revenue) FY 2003-2016 (YOE)	$118.3 million	$129.3 million	$146.9 million
MOBILITY			
Daily Transit Trips Within the Primary Transportation Corridor (2025) (Daily Linked Trips)	261,130	279,400	312,570
Increase in Transit Trips Over the No-Build Within the Primary Transportation Corridor (2025)	N.A.	18,270	51,440
Daily Transit Mode Share Within the Primary Transportation Corridor (2025) (Work Trips)	19.2%	19.5%	22.6%
Daily Revenue Bus Miles (2025)	62,560	77,790	84,450
Comfort Level (Passengers Per Transit Seat) (2025)	1.31	1.01	0.90
Daily Reduction in Vehicle Miles of Travel (Compared to No-Build) (2025)	N.A.	1,080	718,530
Daily Reduction in Vehicle Hours of Delay (2025) (Compared to No-Build)	N.A.	13,285	78,080
Projected Transit Travel Time Between Downtown and Kapolei (2025)	83.1 minutes	78.0 minutes	58.2 minutes
Projected Transit Travel Time between Downtown and Waikiki (2025)	24.4 minutes	25.0 minutes	23.1 minutes
Projected Transit Travel Time between Downtown and UH-Manoa (2025)	24.4 minutes	23.3 minutes	22.6 minutes
Projected Transit Travel Time between Downtown and Kalihi (2025)	17.6 minutes	16.3 minutes	13.3 minutes
Typical Levels of Service on In-Town Roads (Transit)	E/F	E/F	B/C
Typical Levels of Service on In-Town Roads (Autos)	E/F	E/F	E/F
New Parking Spaces Provided at Transit Centers/Park-and-Rides	0	2,700	3,620
On-Street Parking Spaces Removed (Unrestricted/Restricted) (U/R)	0	166 (U)	IOS: 22 (U) Middle St. to Iwilei: 27 (U) Iwilei to Waikiki: 124 (R) Kakaako Mauka: 69 (U) / 66(R) UH-Manoa: 199 (U) / 343 (R)
Number of Loading Zones to be Mitigated	0	14	24
LAND USE DEVELOPMENT			
Support of transit-oriented development	Not supportive	Somewhat supportive	Most supportive
ECONOMIC IMPACT			
Employment (direct and indirect person-years jobs)	704	1,797	9,418

TABLE S.6-1 (CONTINUED)
SUMMARY OF KEY EVALUATION MEASURES

Measures	No-Build	TSM	Refined LPA
QUALITY OF LIFE AND LIVABILITY			
In-Town Transit Technology	Diesel Buses	Diesel Buses	Hybrid diesel/electric or EPT for In-Town BRT
Visual Character	No Changes	Development of transit centers provide opportunities to improve the visual environment	Development of transit centers and In-Town BRT stops provide opportunities to improve the visual environment. The sound barrier near future Aloha Stadium Transit Center will cause visual impact.
Noise/Vibration (In-Town)	No or very little perceptible difference from existing conditions	Similar to the No-Build Alternative	Moderate noise impacts at residences from In-Town BRT operations on Dillingham Boulevard, using the hybrid diesel/electric vehicle. Use of hybrid diesel/electric or electric In-Town BRT vehicles generally less noisy than diesel buses.
Noise/Vibration (Regional)	No Impacts	No Impacts	Moderate noise impacts to nearby residences from increase in bus operations at future Aloha Stadium Transit Center and associated Luapele Ramp.
ENVIRONMENTAL IMPACTS			
Number of Business and Residential Displacements	Loss of two to four acres of agricultural land.	Loss of two to four acres of agricultural land.	Removal of two parking spaces at an apartment complex. Displacement of parking stalls, landscaping, and/or driveway effects on 22 businesses. Loss of two to four acres of agricultural land.

TABLE S.6-1 (CONTINUED)
SUMMARY OF KEY EVALUATION MEASURES

Measures	No-Build	TSM	Refined LPA
Street Trees	No Impact	No Impact	Some tree trimming will be required. 32 "notable" and 68 non-notable trees will be relocated near their original locations. Roughly 50 other trees will be replaced. No designated exceptional trees will be affected.
Change in Energy Consumption Compared to No-Build (in thousands of barrels of oil per year)	N/A	35	-215
Historical Resources	No Impacts	No Impacts	Construction of an EPT system may uncover archaeological resources or native-Hawaiian ancestral burial sites along certain segments. In-Town BRT stops located within or near historic districts or properties with high visual integrity have the potential to affect historic characteristics.
Parkland Impacts	Joint-use of Aloha Stadium Kamehameha Highway parking lot as a transit center/park-and-ride	Same as No-Build Alternative	Same as No-Build Alternative
COST-EFFECTIVENESS			
Incremental Cost Per New Rider (compared to No-Build Alternative)	N/A	$6.25	$5.01
EQUITY			
Impacts/benefits to minority or low-income populations	No adverse impacts/ No increased benefits	No adverse impacts/ Some improvement in transit service	No adverse impacts/ Substantial improvement in transit service

Source: Parsons Brinckerhoff, Inc., November 2002.
Note: *If hybrid diesel/electric vehicles are used, the estimated cost is $954.9 million. If EPT vehicles are used, the estimated cost is $1,038.2 million.

S.6.2 TSM Alternative

Compared to the No-Build Alternative, the TSM Alternative, with its emphasis on enhancing and restructuring bus service, would provide some support to the project's purposes and needs in terms of enhancing people-carrying capacity within the corridor. However, this alternative would not go far in providing an attractive alternative to the private automobile, nor in enhancing desired land use development patterns or the City's urban growth strategy that integrates land use and infrastructure planning. There would be some improvement in the linkage between Kapolei and the Urban Core, but it would not significantly improve mobility within the Urban Core.

Without the implementation of significant transit-oriented infrastructures, transit operation under the TSM Alternative would not be able to maintain current mobility levels.

The level of environmental impact would be greater than under the No-Build Alternative. This alternative would limit the use of an estimated 166 unrestricted parking spaces, mostly on King and Beretania Streets, and affect a number of loading zones. Travel delays would still be lengthy, and energy consumption and air pollutant emissions would increase.

This Alternative would cost $540.8 million in 2002 dollars, which includes replacing buses over a 23-year period. Since there would be no FTA discretionary (New Starts) funding available for use with the TSM Alternative, there would be no additional jobs created beyond those that would occur with the normal in-flow of federal formula funds to the State.

S.6.3 Refined LPA

The Refined LPA represents a major improvement over the No-Build and TSM Alternatives in meeting the project purposes and needs. It would substantially increase people-carrying capacity within the corridor and help focus growth along the alignment of the In-Town BRT. Higher density redevelopment in a transit-supportive manner, particularly at transit centers and transit stops, would be encouraged. This alternative would be more effective than the TSM and No-Build Alternatives in supporting implementation of an urban growth strategy that integrates land use and infrastructure planning. It would help facilitate desired land use development patterns consistent with the vision for the island.

This alternative would establish transit as an attractive, viable alternative to the automobile. Transit patrons would reap travel time savings. The Refined LPA would cause less motorist delay than either the TSM or No-Build Alternative. The Refined LPA would establish an attractive, high capacity linkage between Kapolei and the Urban Core. It would improve mobility within the Urban Core by improving linkages between key destinations such as Downtown, Kakaako, Kalihi, UH-Manoa, and Waikiki, and would decrease transit travel times between these key destinations.

There would be no relocations of businesses or residents with the Refined LPA, though some partial displacements will be necessary. Parking provided at transit centers and park-and-ride lots would be greater than with the TSM Alternative, as would the loss of on-street spaces. Interference with loading zones would be greater than with the TSM Alternative. Regional air pollutant emissions would decrease. Impacts on historic resources would be minor. Impacts during project construction would be greater than for the TSM Alternative because of the larger scope and longer duration of construction, particularly the building of the In-Town BRT transit lanes on arterial streets. The Refined LPA will require standard construction mitigation measures including noise, dust, sediment, and erosion control. In addition, permanent noise mitigation would be required in certain areas along the BRT corridor, if using hybrid diesel-electric vehicles. No noise impacts are anticipated wherever embedded plate technology (EPT) vehicles are implemented.

As part of the Refined LPA, transit centers, transit stops, and other project elements would be designed to maintain or improve visual conditions through cohesively designed structures, street furniture, landscaping and lighting. The quality of urban living would improve.

The cost of this alternative would be $954.9 million with hybrid diesel/electric powered In-Town BRT vehicles and $1,038.2 million with EPT. These costs are in 2002 dollars, and include replacing buses and In-Town BRT vehicles over a 23-year period. The additional federal funds that would be provided under this alternative would create an estimated 3,737 new jobs during construction. Using FTA criteria, the Refined LPA would be more cost-effective in attracting new transit riders compared to the TSM Alternative.

S.7 REQUIRED PERMITS AND APPROVALS

The following regulatory approvals and permits for the Refined LPA will be applied for during the project's final design phase.

Federal

- U.S. Coast Guard – Bridge Permit
- U.S. Department of Transportation Notice of Proposed Construction Near Airports
- U.S. Department of Transportation FHWA Approval of Modifications Within Limits of Interstate Highways
- U.S. Army Corps of Engineers – Clean Water Act Section 404 permit (Nationwide)

State

- State Department of Transportation Permit to Perform Work Upon a State Highway
- State Department of Health Clean Water Act Section 401 Water Quality Certification
- State Department of Health Noise Permit/Variance
- National Pollutant Discharge Elimination System (NPDES) Permit - Stormwater Associated with Construction Activity
- Commission on Water Resource Management – Stream Channel Alteration Permit
- Disability and Communication Access Board Approval

County

- Special Design District Permit
- Zoning Waivers for Public Uses, Public Utilities and Walls
- Building Permit
- Development Application in Flood Hazard Districts
- Special Management Area Use Permit
- Construction Dewatering Permit (Temporary)
- Grubbing, Grading, Excavation, and Stockpiling Permit
- Street Tree Review
- Permit to Excavate on Public Right-of-Way (Trenching)
- Street Usage Permit

S.8 UNRESOLVED ISSUES

Most issues raised during the extensive public involvement, coordination, and consultation conducted for this project have been addressed in the FEIS, although some issues remain unresolved. The unresolved issues are presented below with a brief discussion regarding resolution of the issue.

1. BRT Vehicle Technology. The In-Town BRT vehicles will be hybrid diesel-electric. The City is tracking the development of an all-electric touchable embedded plate system; and its impacts are included in this FEIS. However, no decision on using such a system would be made until it is proven revenue service-worthy and additional environmental review is conducted. If embedded plate technology is selected, the locations of traction power supply stations will need to be identified and their impacts disclosed in a separate document prior to its implementation.

2. BRT Stop Design. The detailed design of the architectural elements of the BRT stops will be completed during the next project phase, final design. The final design of BRT stops will continue to involve public and agency input.

3. Noise Wall Design. The detailed design of the 10-foot high noise wall required at the Puuwai Momi Apartments will be completed during the next project phase, final design. The final design of the noise wall will involve public input.

4. Tree Relocations. The exact locations where affected trees will be replanted will be determined during final design.

5. Hazardous Materials. Phase I investigations of hazardous material sites will be completed where appropriate during the next project phase, final design. As a result of that investigation, specific recommendations, which could include Phase II sampling would be prepared and executed.

6. Parking and Loading Zone Mitigation. In areas where a large concentration of on-street parking spaces will be affected, replacement parking in new off-street parking facilities will be considered during final design, but only if they meet other livable community objectives and are the result of community-based planning. Likewise, loading zone impact mitigation will be considered during final design and community-based planning will be an integral part of the final design phase to address mitigation measures for loading zone impacts.

7. Section 404 permit (Nationwide). New piers will be necessary for a bridge widening at the Waiawa Interchange and therefore, a Clean Water Act Section 404 permit will be required from the U.S. Army Corps of Engineers. The retrofit of the Ala Moana Boulevard bridge over the Ala Wai Canal proposed for the Refined LPA subsequent to the IOS may require new piers, but the need for the piers will not be determined until consultation with the State during the final design phase. If necessary, a Clean Water Act Section 404 permit will be obtained.

CHAPTER 1 PURPOSE AND NEED

CHAPTER OVERVIEW AND ORGANIZATION

Overview

Oahu's primary transportation corridor, which stretches from Kapolei in the west to the University of Hawaii-Manoa (UH-Manoa) and Waikiki in the east (see Figure 1.0-1), is the location of the vast share of the total travel occurring on the island. Existing transportation infrastructure in this corridor is overburdened handling current levels of travel demand. Travelers experience substantial traffic congestion and delay at most times of the day, on weekdays and weekends.

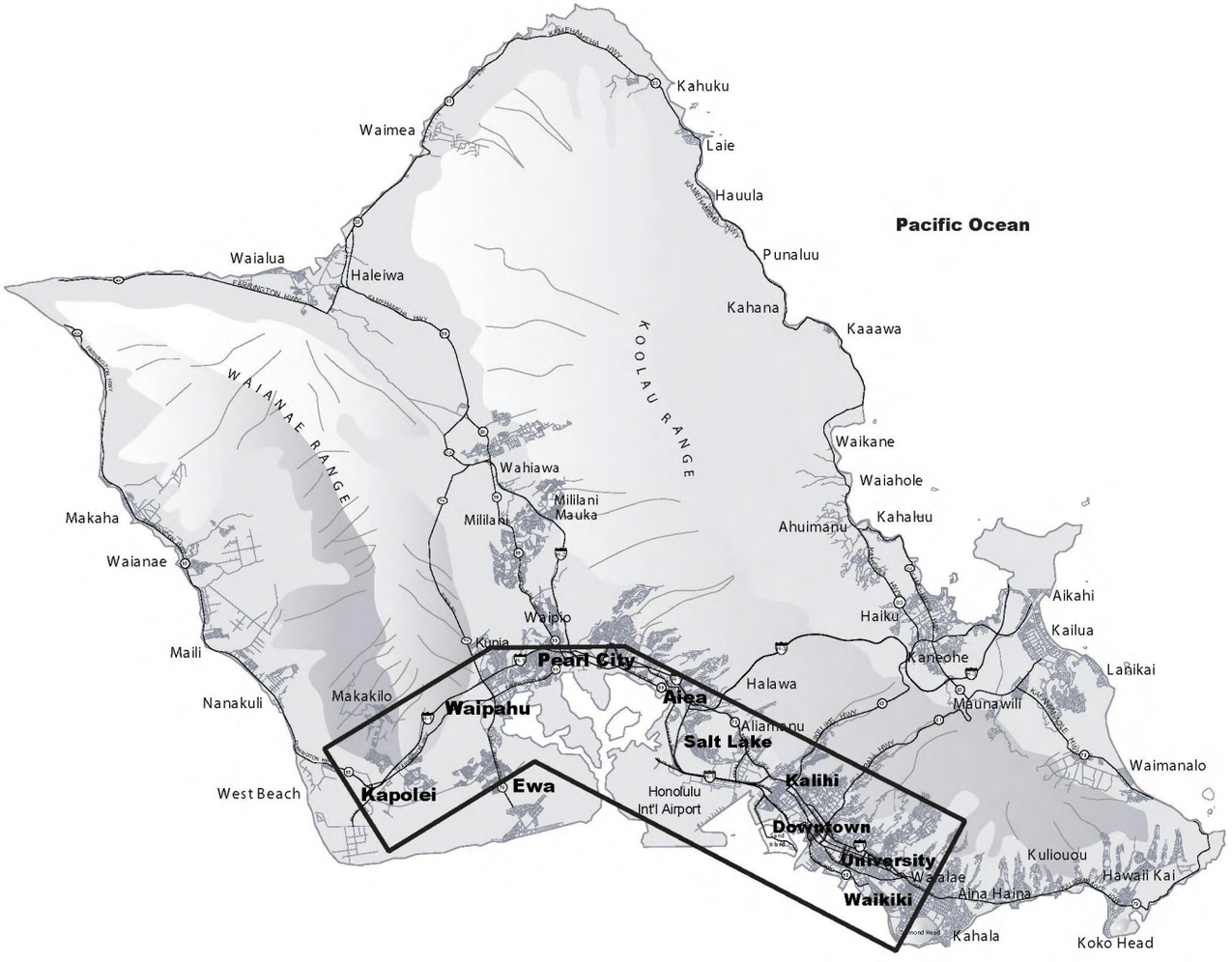
The Initial Operating Segment (IOS) will be the 5.6 miles between Iwilei and Waikiki. The IOS connects several important economic districts: Downtown office and financial district, Aloha Tower retail area and cruise ship piers, Kakaako University of Hawaii Medical School and biotech park, Kakaako retail and entertainment district, Ala Moana Center, and Waikiki resort and residential communities. These significant and diverse sectors are currently without a continuous transit connection; a situation that will be corrected with the implementation of the IOS BRT line. The Primary Urban Center goal of intensified development requires a reliable and efficient transit system to serve mobility needs.

Congestion, such as is experienced at both the regional level and in the IOS segment, takes time away from other activities and creates a burden on the economy. Congestion wastes fuel, produces excess air pollutants, decreases roadway safety and causes stress. It reduces Oahu's attractiveness as a visitor destination and lowers residents' quality of life. Future growth will further increase traffic congestion and delay. The quality of life for Oahu's residents and visitors will continue to decrease unless the transportation system in the primary transportation corridor is modified to better accommodate existing and future travel necessary for daily life.

Investment is required to improve the efficiency of the corridor's transportation infrastructure. A more efficient transportation system in the corridor will enhance mobility, reduce travel time and improve the quality of life for Oahu's residents and visitors. The purpose of the Primary Corridor Transportation Project is to examine candidate investments that would improve the efficiency of the transportation system in the primary transportation corridor, and the connections between the corridor and the rest of the island.

For the past four years, the City and County of Honolulu (City) has conducted the 21st Century Oahu visioning process, including its transportation component, Oahu Trans 2K. Oahu Trans 2K has been the most extensive community-based transportation planning effort in the City's history and it is the principal public outreach medium for the Primary Corridor Transportation Project. (More information on Oahu Trans 2K is provided in Appendix A). Thousands of people from every community on Oahu attended over 100 Oahu Trans 2K meetings and workshops, and worked to find solutions to mobility problems that have grown steadily worse over the past three decades. Participants studied maps, identified their unmet mobility needs and discussed ways to meet them.

From the outset, the Oahu Trans 2K workshops produced widespread agreement on certain fundamental issues. First, participants agreed that traffic congestion in the primary transportation corridor is a problem. This perception was confirmed by the traffic analysis performed subsequently. There was agreement that something must be done to make it better. Second, people felt strongly that improvements must be reasonably affordable. Third, while there is an important role for roadways, there was agreement that building new or widening existing highways cannot solve the traffic problem because there is inadequate space for new or wider streets. Moreover, participants agreed that extensive double-decking of existing streets is unacceptable for aesthetic and environmental reasons. Fourth and finally, participants agreed that transportation must be viewed within a framework that includes quality of life and other benefits. Any



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

N

Scale: 0 2 4 mi

Primary Transportation Corridor

Figure 1.0-1

particular transportation investment is not seen as an end in itself; it is viewed as one component in a network of islandwide transportation improvements that will help improve mobility, shape the island's growth patterns, and stimulate livable communities.

Mobility and transportation must be combined with livability goals. Oahu's citizens have supported a vision of the City's future that focuses on preserving the quality of life, protecting the health of the environment, and providing for growth necessary for prosperity. A network of transportation improvements is needed to address mobility and growth objectives of each of the island's communities.

Organization

This Chapter is organized to provide the reader with an understanding of the overall project purposes and the needs being addressed. Section 1.1 provides a summary of the purposes that a transportation investment in Oahu's primary transportation corridor should satisfy. Section 1.2 establishes the basis for concluding that transportation improvements are needed. Section 1.2 begins by describing existing and future land use in the corridor. Land use is described because travel behavior and the demand for travel are derived from the spatial pattern of land uses. Section 1.2.2 describes the existing transportation infrastructure in the corridor because it is this infrastructure that must satisfy the travel demand created by the land use pattern. Section 1.2.3 then presents measures of transportation system performance used to assess how well the existing infrastructure handles travel demand, now and in the future. Analyses are provided for roadway infrastructure and the public transit system. This Section concludes that an investment in transportation infrastructure must be made to handle present and future levels of travel.

Based, then, on the shortcomings of the existing transportation infrastructure, Section 1.2.4 elaborates on the requirements that an investment in transportation infrastructure should satisfy to remedy deficiencies. Section 1.3 discusses how an investment in transportation infrastructure in the primary transportation corridor is consistent with prior government plans and is derived from an extensive public outreach program. Section 1.4 closes the Chapter with a description of the formal process now underway to implement the Refined LPA.

1.1 PURPOSE

The early Oahu Trans 2K workshops established the broad points of agreement that a transportation investment is needed to achieve mobility, growth, and livability objectives. Working from these points of broad agreement, project planners have applied engineering, technology and operational approaches to develop a program that reflects the community consensus on transportation policy. The first product of this effort was the Islandwide Mobility Concept Plan (IMCP) March 1999 [1], which laid out a comprehensive framework for future transportation on Oahu. The IMCP identified three prime goals, and nine subgoals, for any transportation plan for Honolulu:

1. Improve In-Town Mobility
    - Subgoal A: Enhance urban roadways to embrace pedestrians, cyclists and transit users
    - Subgoal B: Develop high-capacity, frequent transit service through the urban core
2. Strengthen Islandwide Connections

[1] The IMPC was updated in August 2001.

- Subgoal A: Maximize the efficiency of the public transportation system
- Subgoal B: Manage existing roadway capacity
- Subgoal C: Maintain and strengthen regional highway connections
- Subgoal D: Improve the linkage between city centers in the PUC and Kapolei

3. Foster Livable Communities

- Subgoal A: Connect and reinforce local neighborhoods
- Subgoal B: Improve accessibility for all
- Subgoal C: Leverage transportation investments to promote economic development

Guided by the three goals in the IMCP, and through continued public involvement and technical analysis, the following set of purposes was identified for the Primary Corridor Transportation Project.

1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile

With the sheer number of people living and working in Honolulu's urban core, a key strategy to mitigate traffic congestion is to get people out of their cars while they move around. This requires that alternative modes such as walking, bicycling and using public transit be given greater priority. Major destinations in the urban core include Downtown, Waikiki, Kalihi, Kakaako and UH Manoa. Providing improved transit, bicycle, and pedestrian linkages to, from and between these major destinations is crucial to Honolulu's future.

If current levels of mobility and quality of life are to be maintained or improved, we need strategies to increase people-carrying capacity instead of increasing vehicle capacity. Ever-increasing demands will be placed on the primary transportation corridor's roadways, which are already congested by existing levels of transportation demand. Unless trends toward higher automobile usage can be altered, travel times and hours spent on congested highways will increase. Conversion of land from agriculture and open space into suburbs will require more and more local streets, and major roadway expansion. Caught in traffic, buses will operate more slowly and less efficiently than today, decreasing in reliability and attractiveness. This is the negative scenario to be avoided through enlightened investment.

Transportation capacity can be increased through multi-modal solutions planned in an integrated fashion. These include roadway, transit, bicycle, pedestrian and other elements. In order to increase the people-carrying capacity of the transportation system, the present automobile orientation must move to a more balanced mix of transportation modes.

Increased travel demand can be accommodated through roadway construction, and roadway improvements are often the most appropriate response to a transportation problem. However, roadway widening or adding multiple roadway levels in the dense and geographically constrained PUC would be costly and disruptive, and would consume valuable land. Public input overwhelmingly indicates that for the PUC, roadway construction on the scale that would be required to satisfy projected travel demand is not a preferred alternative.

In a preferred scenario, public transit is used in higher proportion to move people in a more space-efficient manner. Improved transit offers the ability to expand people-carrying capacity sufficiently to meet rising levels of future travel demand. The transit system must be made convenient for the user, offering reasonable and

dependable travel times. This will allow transit to be attractive and compete successfully with the automobile to slow the growth in demand for highway travel.

The transit system needs to operate as independently as possible from the congestion affecting general-purpose traffic. Then, transit can achieve the speeds and reliability required to attract ridership to transit, and to provide the additional people-carrying capacity needed to improve the overall level of transportation service within the primary transportation corridor. Freed from the congestion and delays of the roadway network, transit vehicles would be able to move quickly, reliably, and efficiently, and would be an attractive alternative to automobile travel.

Increasing the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile would satisfy Goal 1 in the IMCP – Improve In-Town Mobility and subgoals A and B. It would also meet the IMCP's Goal 2 – Strengthen Islandwide Connections, subgoals A and B. It would also meet the IMCP's Goal 3 – Foster Livable Communities, subgoals A and B.

2. Support desired development patterns

The City's land use policy for the primary transportation corridor requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy. Integrated land use and transportation development will result in a pattern of land uses where many more trips than at present could be made by walking, bicycle, or neighborhood transit systems.

Transportation projects provide urban design opportunities to reinforce community livability. Transit-oriented planning targets a shift from auto-oriented, dispersed, single-use development to a land use pattern with a mix of activities that promotes walking and that focuses on a central transit facility. Transit-oriented, mixed-use developments can reduce vehicular travel and congestion by making it easier to make trips on foot or bicycle.

Transportation facilities and services are needed that can serve as the nucleus of new development in conformance with the land use visions articulated in the Ewa and the draft Primary Urban Center (PUC) Development Plans (DPs). The PUC DP Public Review Draft states that an improved transit system can help re-focus growth in the desired development pattern. It calls for pedestrian-scale development, which has convenient walking access to transit. The PUC DP Public Review Draft states: "A tight integration of land use and transportation policies is required to attain the full development of the Primary Urban Center."

New transportation infrastructure must be built at a human scale, generally within the existing streets. The goal is livable, mixed-use communities provided with improved mobility and with less need to use an automobile.

The Kakaako Makai line was added to the LPA after the MIS/DEIS was published and its impacts were disclosed in the SDEIS. The purpose of the Kakaako Makai line is to satisfy the development needs of an area, which by then had been selected as the site of the UH Medical School, biotech park and several other uses. Because of the accelerated construction timetable for these projects, this section was selected as the IOS.

Supporting desired development patterns would satisfy Goal 1 in the IMCP – Improve In-Town Mobility and subgoals A and B. It would also meet the IMCP's Goal 2 – Strengthen Islandwide Connections, subgoals A, C and D. It would also meet the IMCP's Goal 3 – Foster Livable Communities, subgoals A and C.

3. Improve the transportation linkage between Kapolei and Honolulu's Urban Core

Kapolei is intended by the State and the City to be a center of growth and development, as it becomes the "Secondary Urban Center" of Oahu. The emergence of Kapolei as a new city center represents a fundamental shift in travel patterns. Now is the time to ensure this is done in a multi-modal manner.

Designation of Kapolei to be a fully developed city is in itself a traffic mitigation strategy, designed to reduce the dominant travel pattern in and out of Honolulu. Kapolei already contains vibrant and unique neighborhoods, high quality design, diversified employment, parks, open space and recreational resources, and further development is expected to continue these trends. The vision for Kapolei is a place where people live, work, shop, socialize, and recreate within the area and where alternative forms of transportation to the private automobile can access these facilities. Already the State has completed an office building for over 1,000 State employees relocated from other areas on Oahu. With a new civic center, the City has also relocated many employees to Kapolei. Other existing and future economic development activities include hotel and recreational facilities in Ko Olina, expansion of Kalaeloa-Barbers Point Harbor, redevelopment of Kalaeloa (the former Barbers Point Naval Air Station), world-class sports facilities, and a new University of Hawaii (UH) West Oahu campus. Jobs and other attractions in Kapolei will attract "reverse travel" to this part of Oahu from outside areas.

A transit-based travel option, with frequent express service to and from Downtown and connections to strategically located transit centers, is a necessary transportation element to link Oahu's first and second cities, and will encourage their coordinated growth.

An improved transportation linkage between Kapolei and Honolulu's Urban Core would satisfy Goal 2 in the IMCP – Strengthen Islandwide Connections and each of its four subgoals. It would also meet the IMCP's Goal 3 – Foster Livable Communities, subgoals B and C. Goal 3 is the only goal that the IOS does not directly serve.

4. Improve the transportation linkages among communities in the PUC

Improving transportation linkages within the PUC is key to increasing the attractiveness of in-town living, thereby helping to focus growth in the PUC. Mobility within the PUC must be convenient and efficient to meet current and future travel demands.

The 1992 City and County of Honolulu General Plan has a policy that would result in the PUC having almost half of Oahu's 2010 population. In addition, over 50 percent of the projected new job growth will be concentrated within the PUC. The PUC will remain the center for employment, cultural activities, educational opportunities, regional shopping, and recreation. It will continue to serve as a major hub for commuters, students and other individuals from all parts of the island.

The IOS will provide new service to areas of Kakaako not previously served, and will do an excellent job of linking multiple PUC communities. A high capacity transit spine through the PUC will enhance in-town mobility and provide transit connections between the many travel markets that exist within the Urban Core. The transit spine would support existing activities and assist in creating new ones through redevelopment.

Improving the linkages among communities in the PUC satisfies Goal 1 of the IMCP – Improve In-Town Mobility and both of its subgoals. It will also address Goal 2 – Strengthen Islandwide Connections (subgoals A & B), and Goal 3 – Foster Livable Communities, including each of its three subgoals.

1.2 NEED FOR TRANSPORTATION IMPROVEMENTS

1.2.1 Description of the Study Corridor

The primary transportation corridor is a mix of existing residential and economic centers and areas designated by government plans to become residential and economic centers. The level of transportation service within the corridor, and between the corridor and other parts of Oahu, is vital to the economic well being of the island and the quality of life of Oahu's residents. With future growth being directed by government plans to occur in this corridor, the level of activity within the corridor, already substantial, is expected to increase.

The primary transportation corridor extends from Kapolei in the Ewa District of Oahu to the University of Hawaii at Manoa and Waikiki in the east. The east/west (Koko Head/Ewa) length of the corridor is approximately 26 miles. The north/south (mauka/makai) width is a maximum of four miles, bounded by the Koolau Mountain Range and the coastline. The corridor is by far the most urban region on Oahu and in the State, encompassing more than 56 percent of the island's population and more than 80 percent of its employment.

1) Existing Land Use

Oahu is divided into eight community oriented planning areas. The primary transportation corridor includes portions of three planning areas – the Primary Urban Center (PUC), Ewa, and Central Oahu (see Figure 1.2-1). These community oriented planning areas are either already substantial centers of population and employment (e.g., PUC), or are on their way to becoming urban centers in the future (e.g., Ewa). The Ewa and PUC plans are called Development Plans (DP) because growth in these areas is anticipated over the next 20 years. The Central Oahu plan is called a Sustainable Community Plan (SCP) because it is a relatively stable area.

Figure 1.2-2 shows the locations of the neighborhoods discussed in this Section.

Primary Urban Center (PUC) Development Plan (DP) Area

The PUC extends from Waialae-Kahala to Pearl City and lies between the Koolau Mountain Range and the coastline. The PUC features the most diverse land uses on the island, including residential, military, industrial, commercial, and open space.

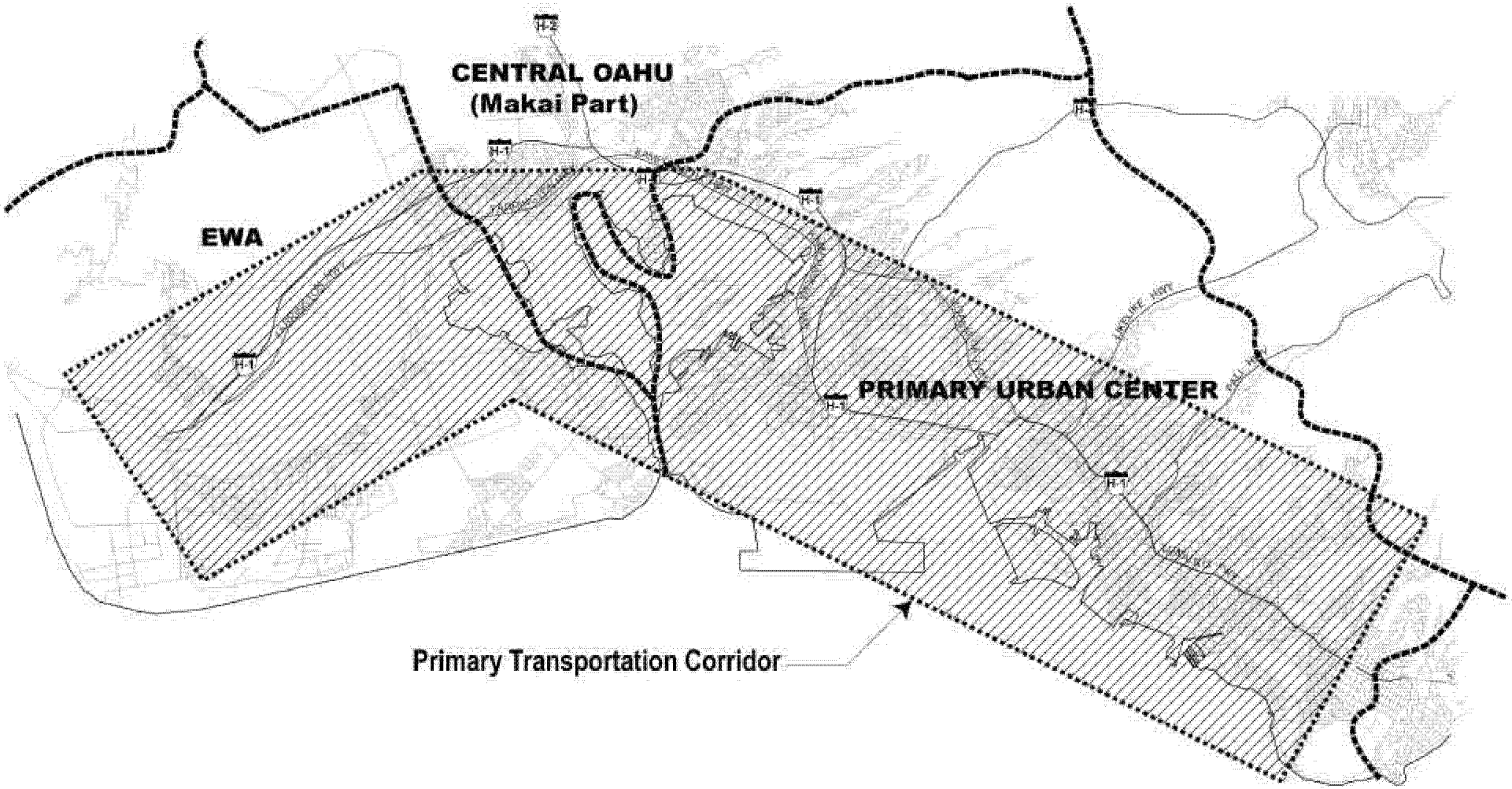
The PUC is by far the most populated planning area with 426,313 people (over 48 percent of the island total) in 2000. The PUC is also the center of government, business, economic, and cultural activities in the State, including most of the major employment centers on the island, such as much of the Pearl Harbor Naval Station, Honolulu International Airport, Downtown Honolulu, Fort Shafter, Hickam Air Force Base, Ala Moana Center, and Waikiki. Economic activity is located primarily in the relatively narrow strip between Kalihi-Palama and Kaimuki, the urban core of Honolulu ("Urban Core" or "Heart of Honolulu"). In 2000, the PUC contained 379,802 jobs, or 78 percent of the total employment on the island.

Central Oahu Sustainable Community Plan (SCP) Area

The Central Oahu SCP Area contains the wide, plateau between the Waianae and Koolau mountain ranges. While only the makai portion of the Central Oahu SCP Area is within the primary transportation corridor, this portion includes Waipahu, Kunia, Waikele, and Waipio. These are some of the fastest growing parts of the Central Oahu SCP Area where much new housing has been developed. In addition, Waipio, Waikele, and Kunia each contain a large commercial shopping center: Waipio Shopping Center, Costco, Waikele Center/Waikele Premium Outlets, and Royal Kunia Shopping Center. The latter three draw tourists and shoppers from other parts of the island.

Ewa Development Plan (DP) Area

Much of the Ewa DP Area is within the primary transportation corridor, and is now experiencing urban growth. The State of Hawaii and the City are encouraging the development of this region as Oahu's "Secondary Urban Center", largely with new master-planned communities. Destinations include Barbers Point Harbor, Kalaeloa (the former Barbers Point Naval Air Station), a civic center with State and City offices, schools, the Ko Olina Resort, and a water theme park.

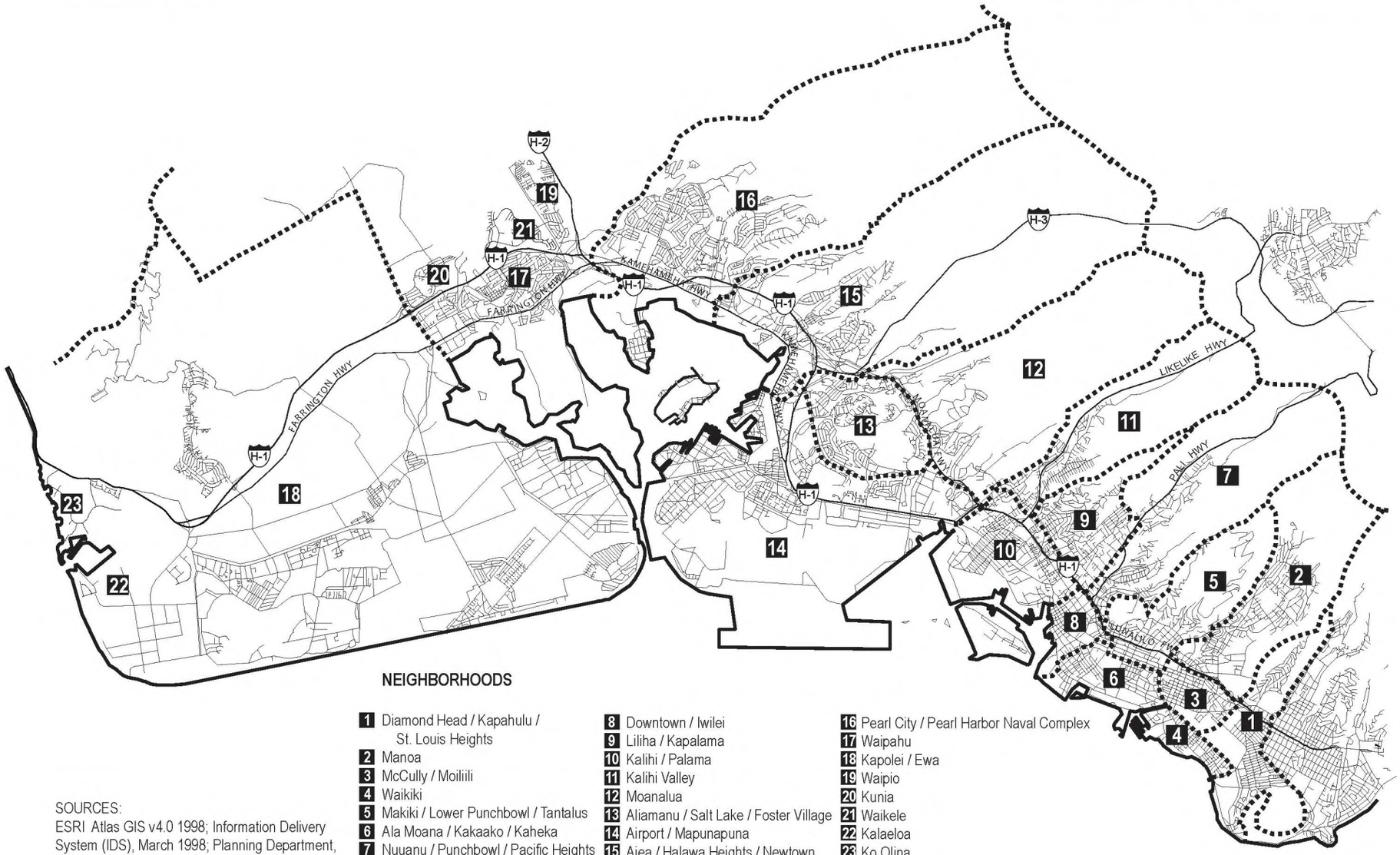


SOURCES:
ESRI. Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

N Scale: 0 1.25 2.50 mi

Development Plan Areas Within The Primary Transportation Corridor

Figure 1.2-1



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; Planning Department, City and County of Honolulu, 1998.

N Scale: 0 .5 1.0 1.5 2.0mi

Neighborhoods

Figure 1.2-2

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2) Future Development

The State and City have a development policy encouraging growth in only two areas: the PUC and Ewa. One of the objectives of this policy is to minimize suburban sprawl and the associated costs of extending public infrastructure and services into presently undeveloped areas. The goal of preserving open space given the limited land area of Oahu, is not only a governmental policy, it is a widespread public sentiment frequently repeated during the public outreach activities that have been conducted during project planning. It is captured by the slogan "Keep the Country Country".

Oahu's population increased at an average annual rate of 1.63 percent during the twenty-year period from 1970 to 1990. Although this growth rate has slowed to less than one percent per year between 1990 and 2000, the population of Oahu is still expected to exceed one million people by 2025 (see Table 1.2-1).

TABLE 1.2-1
PROJECTED POPULATION SUMMARY FOR OAHU

	2000	Forecast	
		2025	Increase From 2000
PUC			
Waikiki	21,900	24,120	2,220
Other PUC	404,413	470,311	65,898
Ewa	68,092	114,005	45,913
Other	378,510	421,371	42,861
Total	**872,915**	**1,029,807**	**156,892**

Source: Transportation for Oahu Plan, TOP 2025, April 6, 2001.

The majority of the population growth between now and 2025 is forecasted to occur at the two ends of the primary transportation corridor. As shown in Table 1.2-1, the fastest growing area will be Ewa/Kapolei. More than 114,000 people are expected to be living in the Ewa DP area in 2025, a growth of 67 percent in 25 years. The PUC will also experience significant growth, increasing by over 68,000 people. The Central Oahu population is projected to increase from 148,380 in 2000 to 172,977 in 2025, a gain of over 16 percent (Transportation for Oahu Plan, TOP 2025, April 6, 2001).

Accompanying the anticipated growth in population will be an increase in employment. Employment increased at an average annual rate of 4.13 percent from 1970 to 1990. The present employment projection is based on a 1.1 percent annual increase, resulting in forecasted job growth of over 30 percent between 2000 and 2025.

As shown in Table 1.2-2, the number of jobs on Oahu is projected to increase by approximately 152,000 between 2000 and 2025. About 51 percent of these new jobs will be located in the PUC. Almost 30 percent of the employment growth islandwide is also expected to occur in Ewa/Kapolei, consistent with government growth policies to concentrate development in the PUC and Kapolei.

The PUC Development Plan (PUC DP) Public Review Draft includes the forecast that the PUC will capture 45 to almost 50 percent of Oahu's population growth over the next ten years (approximately 43,500 new households and 70,000 new residents). Directing residential growth to the PUC requires development of a high-quality, attractive urban lifestyle including opportunities for people to live, shop, work, and socialize all within a particular neighborhood or geographic area, without the need to travel long distances. A consequence of preserving open space in the country is that existing urban areas in the PUC must be redeveloped, and become attractive urban areas for living and working.

TABLE 1.2-2
PROJECTED EMPLOYMENT SUMMARY FOR OAHU

		Forecast	
	2000	**2025**	**Increase From 2000**
PUC			
Waikiki	40,997	49,175	8,178
Other PUC	338,805	408,670	69,865
Ewa	14,898	56,634	41,736
Other	90,792	122,998	32,206
Total	**485,492**	**637,477**	**151,985**

Source: Transportation for Oahu Plan, TOP 2025, April 6, 2001.

To achieve this vision, improvements must be encouraged in older neighborhoods to attract new residents. The PUC DP introduces the concept of higher-density housing supported by extensive urban amenities.

Primary Urban Center (PUC) Development Plan (DP) Area

Elements of urban life that must be enhanced to attract new residents include quality housing; high-quality public spaces that are used as neighborhood focal points; livable neighborhoods where streets are used as public places; and enhanced transportation service, including pedestrian and bicycle facilities, so one does not have to use a car to have mobility and perform the daily functions of work, shopping, education and recreation.

Redevelopment in the PUC is designated primarily for the area makai of the H-1 Freeway between Middle Street and Kapahulu Avenue. A secondary growth/redevelopment area is located between Aiea and Pearl City. These areas have the most favorable conditions for accommodating new housing, and 90 to 95 percent of the expected growth in population by 2025 is expected to occur within these redevelopment areas.

Central Oahu Sustainable Community Plan (SCP) Area

A revised Central Oahu Sustainable Communities Plan (Central Oahu SCP) has gone through the Planning Commission review and approval process and is at the City Council for adoption. The Waipahu portion of the Central SCP Area that is in the primary transportation corridor is slated for development.

Ewa Development Plan (DP) Area

Kapolei is intended by the State and the City to be a center of growth and development, as it becomes the "Secondary Urban Center" of Oahu. The vision for Kapolei is a place where people live, work, shop, socialize, and recreate within the area, without needing to travel long distances, and where alternative forms of transportation to the private automobile can access these facilities.

Designation of Kapolei to be a fully developed city is in itself a traffic mitigation measure, reducing the dominant flow to and from Honolulu. The intent is that Kapolei's economic development will complement and support economic activity in the Urban Core, not compete with it. Therefore, the transportation linkage between Kapolei and the Urban Core, already important, will grow in importance.

1.2.2 Existing Transportation Facilities And Services In The Corridor

This Section discusses the existing infrastructure responsible for satisfying the travel demand in the corridor, and the next Section assesses how well this infrastructure is satisfying current travel demand. In brief, transportation service is provided by roadways, public bus service and special transportation facilities, which

encourage high-occupancy vehicles. Maps of the existing roadways, bus routes and other elements of the transportation system are provided in Chapter 3.

1) Roadway Network

The roadway network in the primary transportation corridor is concentrated in the area between the mountains and ocean, with the dominant highways generally paralleling the coastline. The principal Ewa/Koko Head roadway is the Interstate H-1 Freeway, which runs from Kapolei to Kahala. Moanalua Freeway, which runs from the Halawa Interchange to Kahauiki Interchange, also runs Ewa-Koko Head. The H-2 Freeway services traffic between Mililani/Wahiawa and Pearl City, and the H-3 Freeway is a trans-Koolau roadway between Windward Oahu and Halawa. In addition, there is an extensive network of arterial and local roadways.

2) Public Transit System

The City currently provides fixed-route public transit service on Oahu. It is converting from a radial route structure to a hub-and-spoke structure. This hub-and spoke program is a major overhaul of the existing bus service operations. Starting with Leeward Oahu, the program goal is to convert the existing, primarily radial bus route architecture into a hub-and-spoke system that connects the different communities throughout the island. Such a system includes limited stop bus service all day long and enhanced neighborhood shuttle services. All 18 Leeward routes were converted in 2000. All 20 Central routes will be converted in 2003.

TheBus, as this service is called, maintains a current fleet of 525 buses deployed on 88 routes extending to urban, suburban and rural areas throughout the island. The bus network includes five route types:

- Urban Trunk service is the direct bus service along the Ewa/Koko Head arterials of the central portion of the PUC, operating with a high level-of-service and connecting neighborhoods on both sides of Downtown. More than half of the system's daily boardings are on urban trunk routes. A special type of urban trunk service is the new Route A and Route B service (called "CityExpress!"), which provides limited stop service from Waipahu to UH-Manoa, and the Route C "CountryExpress!" service that provides limited stop service along the Waianae coast.
- Urban Collector service provides access to the transit system from neighborhoods surrounding Downtown Honolulu that are not directly served by urban trunk routes.
- Suburban Trunk service provides a direct connection between suburban neighborhoods and Downtown Honolulu.
- Suburban Feeder service provides access to the transit system for neighborhoods outside the PUC not served by suburban trunk routes.
- Express routes provide direct, limited stop service between certain suburban neighborhoods and major activity centers within the PUC, generally limited to peak hours.

TheBus route network focuses transit service to dominant employment and retail centers in the PUC, while providing service along major arterial streets en route to these centers. Because of the locations of these centers, the area from Middle Street to Kahala has the most frequent bus coverage, with many of the bus lines coming together on a few parallel roadways.

Transit service to/from suburban areas is served by express bus service during the morning and afternoon peak periods, while these areas are served by regular route trunk lines during off-peak periods.

In addition, the City provides a comparable paratransit service, called TheHandi-Van, to complement the fixed route bus service. TheHandi-Van serves semi- and non-ambulatory disabled persons who cannot utilize TheBus.

TheBus vehicles are serviced at two maintenance facilities, one in Pearl City and the other in Kalihi-Palama.

3) Special Transportation Facilities

To facilitate bus service and improve the person-carrying capacity of major roadways, special lanes have been constructed for buses and other high-occupancy vehicles (HOVs). H-1 includes a Koko Head-bound contraflow lane (zipper lane) that operates during the a.m. peak period from Managers Drive to the Pearl Harbor Interchange, with a concurrent flow shoulder lane extension to Keehi Interchange. Several major arterial roadways are coned to create contraflow travel lanes during peak periods, and there are exclusive bus only lanes on Hotel Street in Downtown and on a section of Kalakaua Avenue in Waikiki.

4) Bicycle Facilities

Bicycle facilities in the study area include a collection of routes, lanes, and paths. The longest, and one of the most heavily used, is the Pearl Harbor Bike Path. Other major bike facilities include a path on Bougainville Drive/Nimitz Highway from Radford Drive to Middle Street; lanes on Nimitz Highway from Waiakamilo Road to Bishop Street; a route on Young Street; lanes on University Avenue from Kapiolani Boulevard to Dole Street; paths along the Ala Wai Golf Course and Park; and paths along Kapiolani Park. Bike Plan Hawaii (April 1994), prepared by the State of Hawaii Department of Transportation (HDOT), and the Honolulu Bicycle Master Plan (April 1999), prepared by the DTS, link existing and future bicycle facilities to create a network that can be used for recreation and commuting. A Draft Bike Plan Hawaii: A State of Hawaii Master Plan (May 2003) has also been prepared by HDOT.

Other bicycle facilities include bicycle parking in many areas in Downtown Honolulu. The City has placed bike racks on all of the City buses, with hookups to the bus bicycle racks now at 1,100 per day.

1.2.3 Measures of Transportation System Performance

This Section describes the quality of current and future service provided by the roadway and transit components of the primary transportation corridor's system. The assessment of future performance assumes growth and development occur as predicted, and implementation of highway improvements expected to occur as discussed in the TOP 2025. The assessment of future system performance assumes transit system coverage would be expanded to accommodate population growth.

1) Roadway Performance

Existing Roadway Performance

Travel demand within the primary transportation corridor currently overburdens the roadway system, particularly for the travel markets between suburban/Ewa/Kapolei areas and the Urban Core, and within the Urban Core. Symptoms of system inadequacy include congestion, delay, fuel waste, excess air pollutants and other detractions from the quality of life.

While resident households, port operations, airport activities, other commercial activities and visitors all generate travel on Oahu, travel by members of resident households represents over 90 percent of total traffic volume and transit ridership. In 2000, Oahu residents made more than 2.7 million trips on an average weekday. Of these, approximately 962,000 were work trips (TOP 2025, April 6, 2001). Downtown Honolulu, by far the largest single employment concentration on Oahu, attracted 105,000 of the work trips (11 percent). Many work trips were also attracted to the Airport/Pearl Harbor area, Kakaako, and Waikiki. Many trips to work began in the residential areas of Aiea, Ewa, Kalihi, and Kaneohe. Over the next 25 years, these travel origin-destination combinations will continue to be important as the PUC grows and develops.

Historically, travel on Oahu has increased more rapidly than population. As shown in Table 1.2-3, while Oahu's population increased 14.9 percent from 1980 to 2000, daily vehicle miles traveled increased by more than 47.5 percent. This rapid increase in travel has caused roadway congestion, as demonstrated by the over 36 percent growth in daily vehicle hours traveled during the same period.

TABLE 1.2-3
OAHU POPULATION AND DAILY TRAVEL CHARACTERISTICS

Year	Population	Vehicle Miles Traveled	Vehicle Hours Traveled
1960	500,409	4,301,370	N/A
1980	762,565	8,741,110	328,900
2000	876,156	12,900,015	449,910

Source: Oahu Metropolitan Planning Organization from US Census Data and Travel Demand Model; Parsons Brinckerhoff, Inc., 1999 and 2001; and http://quickfacts.census.gov/gfd/meta/long68166.htm.

Table 1.2-4 shows Honolulu compared to similar sized urban areas. The travel rate index (TRI) measures how much longer a trip takes on a congested facility compared to the travel time when the road is not congested. For the 17 years between 1982 and 1999, Honolulu travelers experienced more roadway congestion than similar-sized cities across the U.S. Congestion has gotten progressively worse in Honolulu, increasing from nine percent in 1982 to 22 percent in 1999.

TABLE 1.2-4
TRAVEL RATE INDEX[1]

	1982	1986	1990	1996	1997	1999
Honolulu	1.09	1.12	1.21	1.21	1.22	1.22
Average Medium-Sized Urban Area[2]	1.05	1.07	1.11	1.16	1.17	1.18

Source: Texas Transportation Institute, Urban Roadway Congestion-Annual Report, 1998 and The 2001 Urban Mobility Report, Texas A&M University, 1999 and May 2001.

Notes: [1] TRI is a measure of how much longer a trip takes during congested conditions compared to the same trip during uncongested conditions. A TRI of 1.2 means the trip during a congested period takes 20 percent longer than during an uncongested time.
[2] Population between 500,000 and 1,000,000.

Honolulu's arterial street system reflects the same high levels of congestion when measured in person-miles (one person traveling one mile on a roadway). In 1990, 71 percent of person-miles traveled on arterial streets were on congested roadways, but by 1996 the percentage had increased to 78 percent.

Delays resulting from roadway congestion are equivalent to the loss of almost three working days for every Oahu resident each year, or roughly four working days for every driver in Honolulu in the past few years. The annual delay per resident for Honolulu is shown in Table 1.2-5.

TABLE 1.2-5
ANNUAL DELAY PER OAHU RESIDENT (HOURS)

	1982	1986	1990	1995	1997	1999
Honolulu	6	10	17	19	19	19

Source: Texas Transportation Institute, The 2001 Urban Mobility Report, Texas A&M University, May 2001.

Further, vehicles idling on congested roadways waste fuel, costing money and contributing to air pollution and global warming. In 1999, 19 million gallons of fuel were wasted by cars stuck in traffic in Honolulu, amounting to 30 gallons of fuel wasted for every Oahu resident (see Table 1.2-6). This fuel waste is up from 11 gallons per resident in 1982.

TABLE 1.2-6
ANNUAL WASTED FUEL (MILLIONS OF GALLONS)

	1982	1986	1990	1995	1997	1999
Honolulu	6	10	18	21	21	21

Source: Texas Transportation Institute, The 2001 Urban Mobility Report, Texas A&M University, May 2001.

Combining these various measures of transportation system performance produces a "cost of congestion." The annual "cost of congestion" in 1999 for Honolulu was $240 million (The 2001 Urban Mobility Report, Texas Transportation Institute, May 2001).

Stepping this cost down to a per capita basis, the annual cost of congestion was $345 in 1999 per capita in Honolulu. This cost represents a substantial drag on the local economy. The annual cost of congestion was only $90 per capita in 1982.

Reliance on the automobile has also resulted in the demand to convert land for parking. Based on an average of 2.17 automobiles per household, 350,000 private automobiles are estimated to be based in the PUC. On average, every vehicle requires 350 square feet for parking, totaling 2,800 acres of land in residential areas for parking, some of which could otherwise be used for parks and affordable housing, or other purposes. This 2,800 acres figure does not include parking lots at employment sites, retail outlets, or recreation venues.

In summary, the existing transportation system struggles to serve the present level of travel demand in the primary transportation corridor, subjecting travelers to substantial congestion, delay and waste of fuel. Existing shortcomings will become more pronounced with growth.

Future Highway Performance

Travel demand between suburban/Ewa/Kapolei areas and the Urban Core, and within the Urban Core, will continue to tax the highway system, even with the roadway improvements presently planned. Growth in resident travel relates to growth in population and employment. Table 1.2-7 summarizes the projected growth in resident vehicular travel demand between 2000 and 2025. (In accordance with FTA guidelines, the planning horizon for a possible transit investment is 25 years from the present.) Travel demands in the a.m. and p.m. peak periods (which vary by roadway segment) are projected to grow by over 22 percent.

TABLE 1.2-7
TOTAL RESIDENT VEHICLE TRIP TRAVEL DEMAND

	A.M. Peak Period	P.M. Peak Period
2000	393,864	489,125
2025	485,199	604,429
Growth	91,335	115,304
Percent Growth	23%	24%

Source: Oahu Metropolitan Planning Organization Travel Demand Model and Parsons Brinckerhoff, 2002.

Table 1.2-8 shows the projected growth in travel by Oahu residents between 2000 and 2025 categorized by key travel markets.

TABLE 1.2-8
RESIDENT PERSON TRIP TRAVEL DEMAND WITHIN SELECTED TRAVEL MARKETS

Travel Market	Daily Person Trips			
	2000	2025	Difference	Percent Change
Within Urban Core	1,112,243	1,420,592	308,349	28%
Suburban to Urban Core	622,023	664,842	42,819	7%
Ewa/Kapolei to Urban Core	54,182	69,156	14,974	28%
Suburban to Ewa/Kapolei	81,602	167,917	86,315	106%

Source: Oahu Metropolitan Planning Organization Travel Demand Model and Parsons Brinckerhoff, 2002.

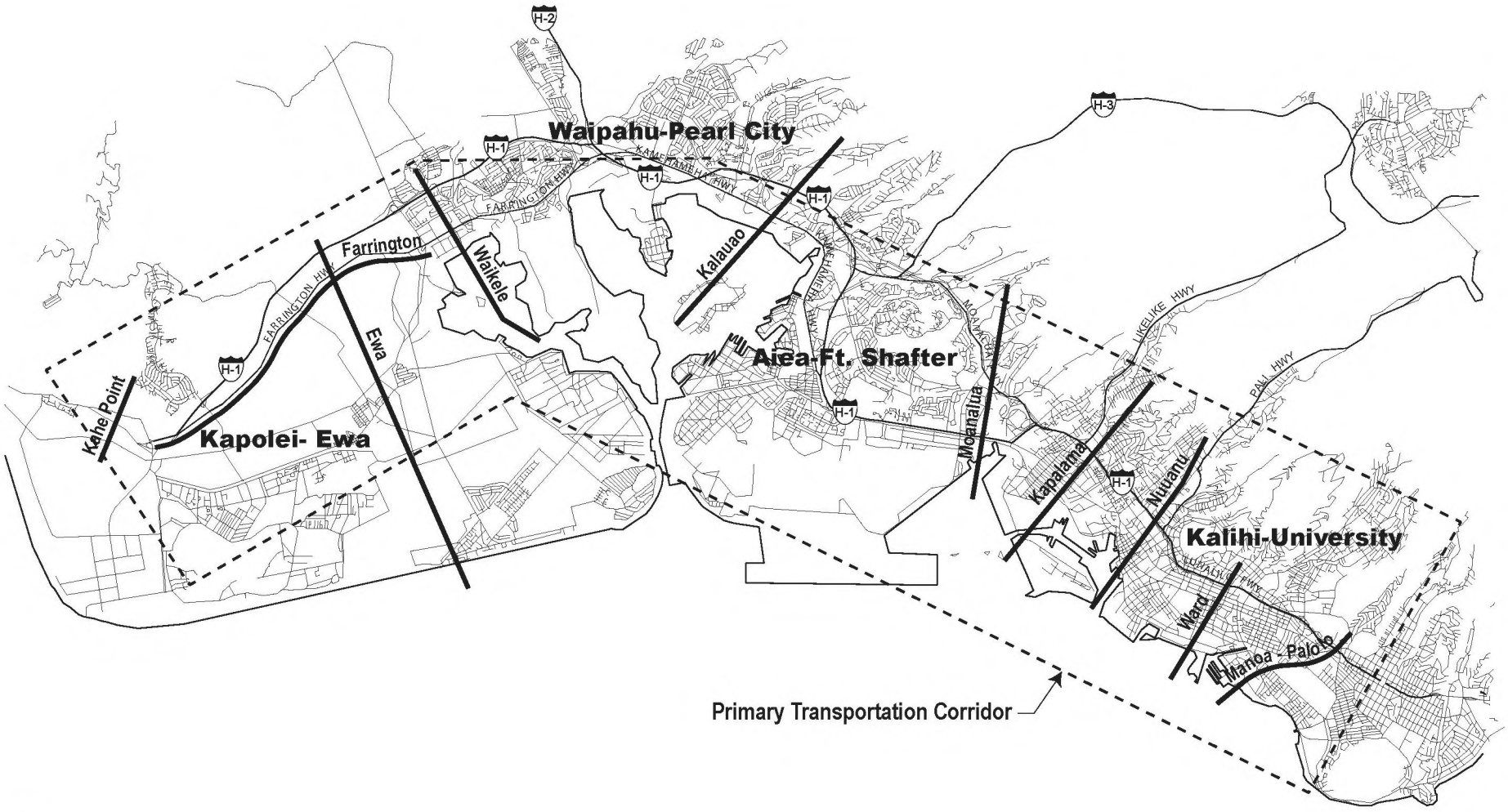
The travel market between suburban areas and Ewa/Kapolei will be the most rapidly growing on a percentage basis. However, over one-half of the island's travel will continue to occur wholly within the PUC, heavily concentrated in an Ewa-Koko Head direction, with intra-PUC travel expected to increase by over 300,000 trips per day. Even with the significant reorientation of travel patterns to and from the Ewa/Kapolei area, there is substantial projected growth in travel between the PUC and Kapolei, and within the PUC. This large increase in travel within the PUC is a major reason why the capacity to handle in-town mobility must substantially increase through the improvement of transit service. The relationship between travel demand and roadway capacity may be illustrated through the analysis of screenlines, imaginary lines drawn at strategic locations. Traffic volumes on roadways crossing the defined screenlines are summed to produce a total travel demand across a screenline. This screenline travel demand is compared to the total roadway capacity across the screenline, derived by summing the capacities of the key roadways as they cross the screenlines. Ratios of travel demand to roadway capacity (volume/capacity ratios) are then calculated to assess highway performance at the screenlines. A volume/capacity ratio of 1.00 indicates that the roadway capacity of the screenline is completely utilized, while a volume/capacity ratio greater than 1.00 indicates that significant vehicular delay would occur because of roadway congestion. These volume/capacity ratios are frequently related to an index called level-of-service (LOS), which ranges from A (free-flow) to F (congested flow).

Tables 1.2-9 and 1.2-10 summarize 2000 and 2025 peak period data at selected screenlines, focusing on traffic flowing in the Ewa-Koko Head direction. Figure 1.2-3 illustrates the location of these screenlines.

TABLE 1.2-9
COMPARISON OF YEAR 2000 AND YEAR 2025 SCREENLINE LOS
A.M. PEAK HOUR INBOUND TO DOWNTOWN

Screenline	Year 2000				Year 2025			
	Vehicle Volume	Capacity	V/C Ratio	LOS	Vehicle Volume	Capacity	V/C Ratio	LOS
Kahe Pt.	1,892	3,200	0.59	A	3,004	3,200	0.94	E
Ewa	4,783	6,800	0.70	C	8,617	11,700	0.74	C
Waikele	7,278	9,750	0.75	C	12,973	11,500	1.13	F
Kalauao	16,030	15,900	1.00	F	25,089	17,650	1.42	F
Moanalua	17,527	20,400	0.86	F[1]	22,072	22,100	1.00	F[1]
Kapalama	15,758	16,800	0.94	E	23,595	20,500	1.15	F
Nuuanu	15,627	18,600	0.84	F[1]	21,196	18,600	1.14	F
Ward	12,097	18,900	0.67	F[1]	21,132	18,900	1.09	F
Manoa-Palolo	15,332	21,150	0.72	F[1]	20,800	21,150	0.98	F
Kapakahi	5,296	5,400	0.98	E	6,039	5,400	1.12	F

Source: Parsons Brinckerhoff, Inc., May 2002.
Note: LOS F caused by downstream congestion backing up across screenline.



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, June 2002.

N

Scale: 0 1.25 2.50 mi

Screenlines Within Or Near The Primary Transportation Corridor

Figure 1.2-3

TABLE 1.2-10
COMPARISON OF YEAR 2000 AND YEAR 2025 SCREENLINE LOS
P.M. PEAK HOUR OUTBOUND FROM DOWNTOWN

Screenline	Year 2000				Year 2025			
	Vehicle Volume	Capacity	V/C Ratio	LOS	Vehicle Volume	Capacity	V/C Ratio	LOS
Kahe Pt.	1,875	3,200	0.59	A	3,683	3,200	1.15	F
Ewa	4,435	6,800	0.65	B	9,497	11,700	0.81	D
Waikele	7,011	9,750	0.72	C	10,489	12,500	0.84	D
Kalauao	14,677	14,150	1.04	F	21,936	17,650	1.24	F
Moanalua	14,620	18,200	0.80	F[1]	20,599	19,900	1.04	F
Kapalama	14,535	17,700	0.82	F[1]	21,266	21,800	0.98	E
Nuuanu	15,628	18,100	0.86	F[1]	21,193	18,100	1.17	F
Ward	15,329	22,200	0.74	F[1]	21,592	22,200	1.00	F
Manoa-Palolo	12,643	21,050	0.60	F[1]	21,994	21,050	1.04	F
Kapakahi	4,348	4,050	1.07	F	4,963	4,050	1.23	F

Source: Parsons Brinckerhoff, Inc., May 2002.

Note: [1] LOS F caused by downstream congestion backing up across the screenline.

At key screenlines between the Waiawa Interchange (H-1/H-2 junction), through the Urban Core and into East Honolulu, the LOS analysis indicates that many roadways are significantly over capacity under existing conditions. This finding on the current level of transportation service supports the analysis reported in the previous section, that the existing transportation infrastructure is severely taxed even under current levels of travel demand. Further, even including the near-term improvements to the transportation system presently programmed, volume/capacity ratios are projected to worsen between 2000 and 2025.

Within the Urban Core of Honolulu, much of the roadway performance is controlled by conditions at key intersections. If intersections are congested, the total trip time is lengthened even if traffic flows smoothly between the intersections.

Table 1.2-11 summarizes 2000 and projected 2025 peak hour intersection LOS at key intersections within the Urban Core. Many of the intersections are approaching capacity under existing conditions, and intersection performance is projected to worsen between 2000 and 2025 because travel within the Urban Core is projected to grow.

In summary, the highway screenline and the Urban Core intersection analyses indicate that highway users currently experience substantial traffic congestion. Even with the assumed improvements to the transportation system (these assumed improvements are contained in the No-Build Alternative as discussed further in Chapter 2), peak hour conditions for 2025 vehicular traffic would be even worse than 2000 conditions because of growth in travel demand. Thus, an approach of increasing person-capacity is needed.

The travel conditions indicated by the screenline and intersection LOS results in average islandwide auto speeds of 28.95 miles per hour (mph) and 29.01 mph during the A.M. peak period and P.M. peak period, respectively. Table 1.2-12 summarizes projected year 2025 peak period auto travel times between selected origins and destinations.

The regional auto travel times are lower during the A.M. peak period than during the P.M. peak period, because autos traveling during the A.M. peak period would benefit from the contra-flow zipper lane/shoulder lane operation on H-1 Freeway, between the Paiwa Interchange and the Keehi Interchange. The zipper lane/shoulder lane operation does not currently operate during the P.M. peak period and is not assumed to operate in this time period in the future.

TABLE 1.2-11
COMPARISON OF EXISTING AND FUTURE INTERSECTION LOS

Intersection	Peak Time Period	2000	2025
Kalihi Street & Dillingham Boulevard	A.M.	C	F
	P.M.	E	F
Kalihi Street & N. King Street	A.M.	D	F
	P.M.	D	F
Bishop Street & S. King Street	A.M.	D	F
	P.M.	D	F
Punchbowl Street & S. King Street	A.M.	D	F
	P.M.	C	F
Punchbowl Street & Ala Moana Boulevard	A.M.	B	C
	P.M.	D	F
Kalakaua Avenue & Kapiolani Boulevard	A.M.	C	F
	P.M.	E	F
Nimitz Highway & Sand Island Access Road	A.M.	F	F
	P.M.	F	F

Source: Parsons Brinckerhoff, Inc., May 2002.

TABLE 1.2-12
YEAR 2025 PEAK PERIOD AUTO TRAVEL TIMES
(Travel Time in Minutes)

Trip Origins/Destinations	A.M. Peak Period	P.M. Peak Period
Downtown-Kapolei	44.6	57.1
Downtown-Mililani	46.4	58.4
Downtown-Waikiki	12.7	13.8
Downtown-U.H.-Manoa	12.9	12.7
Downtown-Middle St. TC	13.4	11.0

Source: Parsons Brinckerhoff, Inc., November 2002.

Note: TC = Transit Center
Travel time direction is inbound to Downtown in the A.M. peak period and outbound from Downtown in the P.M. peak period.

2) Public Transit Performance

TheBus had approximately 213,000 boardings per day in 2000. Measured in passengers per revenue-mile and operating expenses per passenger, TheBus is one of the most productive and efficient bus systems in the U.S. In 1994 and again in 2000 the City bus system received a "Best Transit System in America Award" from the American Public Transit Association.

TheBus has excellent service coverage and there is significant passenger demand. Many express and trunk routes experience substantial overcrowding. On an average day across the system, there are over 30 instances of waiting passengers being passed up because buses are full. Bunching of buses caught in traffic congestion causes schedules to be unreliable. Because buses must compete for roadway space with other vehicles, increasing capacity on bus routes is difficult. With the high level of traffic congestion on today's

highway system, and increased traffic congestion forecasted for the future, the ability of the bus system to continue providing the service it does today is limited. The ability of the system to improve the level of service to reduce current overloads and meet future travel demand would be even more limited.

In summary, unless significant changes are made to enhance the transit system, increasing congestion on the roadway system will constrain the ability of TheBus to provide convenient and reliable mobility options for those who can choose between transit and driving. With roadway congestion continuing to worsen, average bus speeds and on time performance will be poor as long as buses operate in mixed traffic. Ridership growth will be more difficult to achieve under such circumstances. The ability of TheBus to absorb future travel demand, much less improve the current level of service for transit patrons, is limited if the system continues to be operated in congested traffic.

1.2.4 Zonal Requirements for Travel Within the Corridor

Not only must the network increase its capacity to move people, but the types of transportation service to be provided must be reflective of the unique transportation needs that exist on a subarea basis.

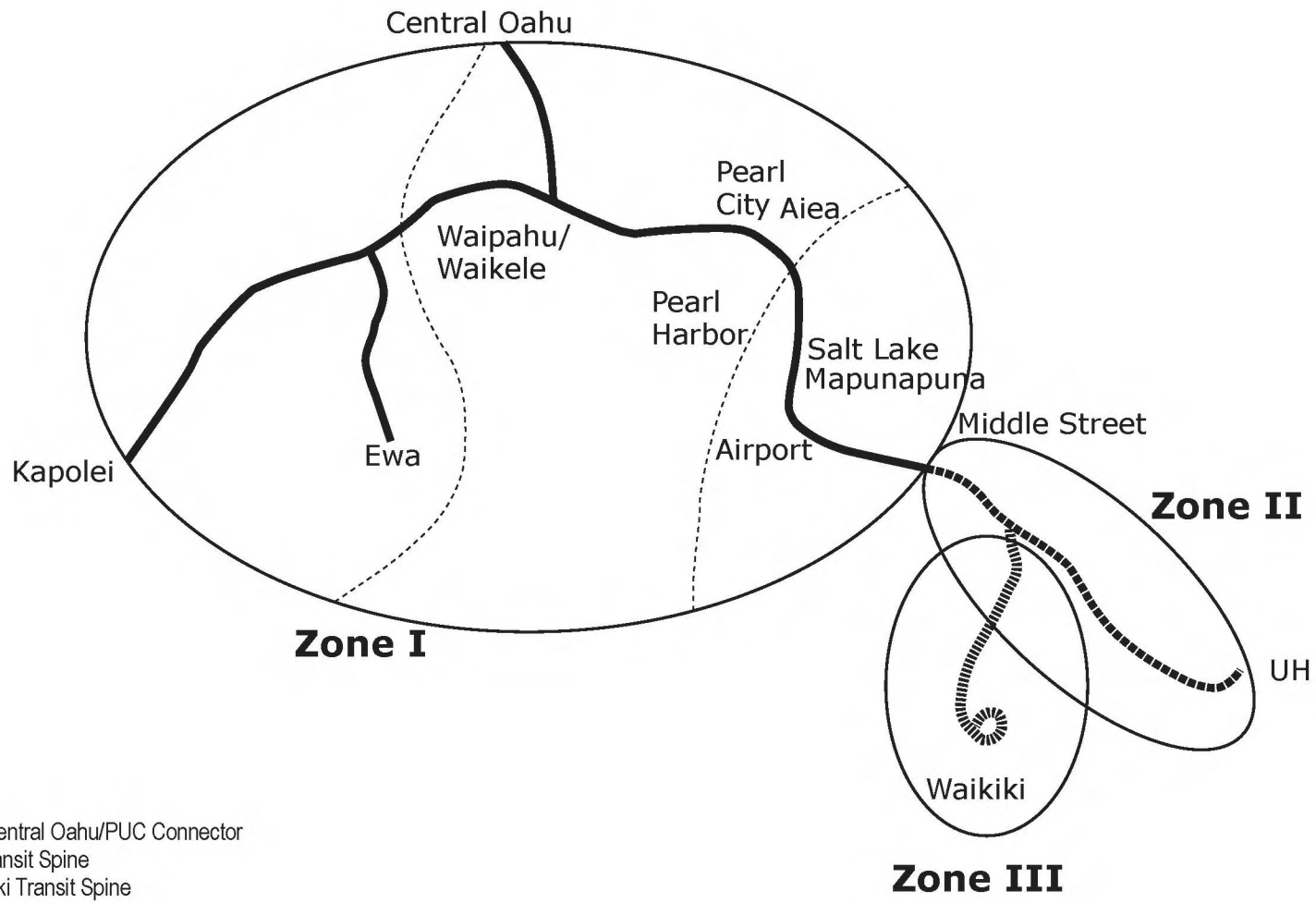
Figure 1.2-4 displays three distinct travel zones or market areas within the primary transportation corridor. Zone I extends from Kapolei to Middle Street, and contains three subzones: Kapolei/Ewa, Waipahu/Waikele/Pearl City, and Salt Lake/Airport. Zone II encompasses Downtown Honolulu, extending from Middle Street to the University of Hawaii. Zone III covers Waikiki as well as overlapping with parts of the Urban Core. A fourth zone includes the rest of the island outside of the primary transportation corridor. In developing transportation alternatives to address future demand, the travel patterns and unique needs of the individual zones and subzones must be understood so the alternatives that address the mobility issues of the corridor also match localized needs for transportation service.

Zone I, the region of the Secondary Urban Center, has the principal travel requirements of more frequent express service from Kapolei to Downtown Honolulu, intrazonal circulation, and connections to the rest of Oahu. Since Kapolei will support jobs and a range of cultural, educational, and other activities, residents need to be able to meet many of their needs by traveling wholly within the City of Kapolei. In addition, jobs and other attractions in Kapolei will attract "reverse travel" to this part of Oahu from outside areas.

The Waipahu/Waikele/Pearl City subzone of Zone I is a suburban area, including the regional shopping hubs of Waikele Center/Waikele Premium Outlets and Pearlridge Center. Therefore, the Waipahu/Waikele/Pearl City subzone's primary travel needs are connections to the Urban Core for residents who work in town, a connection to Kapolei, and connections into this subzone to access the shopping centers.

The Salt Lake/Airport subzone of Zone I contains the largest housing areas for military families, and employment centers such as the Honolulu International Airport and the Mapunapuna industrial area. Pearl Harbor is a major employer and visitor attraction. Connections to this subzone from all parts of the island will continue to be critical for commuters and airport users, and connections from all over Oahu to Pearl Harbor will be important.

Zone II is Honolulu's Urban Core, where the travel needs relate to convenient and efficient in-town mobility associated with "in-town" living. Many trips could be made by walking, bicycling or public transportation. Since Zone II will remain the primary center for employment, cultural activities, educational opportunities, regional shopping, and recreation, it will continue to serve as a major hub for commuters, students, and other individuals from all parts of the island. With major redevelopment planned for Kakaako, an opportunity exists to coordinate transit plans with Kakaako development plans so that mobility and livability objectives are fully realized.



	Travel Zones Within The Primary Transportation Corridor	Figure 1.2-4

Zone III comprises Waikiki and its 21,900 residents, 31,300 hotel rooms, 40,997 employees, plus numerous retail, entertainment, and recreational attractions. Waikiki has the highest concentration of trip making per square mile of any area on the island, with population and employment projected to increase further by 2025. While many trips stay within Waikiki and are made by walking or transit, most Waikiki residents work, go to school or have health care and other needs outside of Waikiki. They therefore require good connections to Downtown and other parts of the PUC. Also, most of the employees who work in Waikiki live elsewhere, and need good transportation access to places of employment. Waikiki's concentration of recreational activities, restaurants, nightlife, parks and beaches attract residents from around the island.

1.3 PLANNING CONTEXT

This Section discusses the context within which planning for transportation improvements in the primary transportation corridor has been occurring. Section 1.3.1 discusses how an investment in transportation infrastructure in the primary transportation corridor would be consistent with government plans. Section 1.3.2 was added to the FEIS and explains the transportation planning process. Section 1.3.3 discusses the public outreach activities that DTS has conducted, starting in the Fall of 1998. Input from the Oahu Trans 2K series of meetings has been critical in establishing consensus on key issues and in developing and evaluating alternative transportation solutions for the corridor, as described in more detail in Chapter 2. Section 1.3.2 also describes the development of the Islandwide Mobility Concept Plan (IMCP), an important document that integrated public input into transportation goals and objectives for the island.

1.3.1 Transportation Improvements in Relation to Government Plans

The purposes and needs presented so far in this Chapter have been discussed for many years, and government planning has long recognized them in transportation goals and objectives for the island, although not necessarily stated in the current terminology of sustainability.

Transportation planning in the primary transportation corridor involves several local, State, and federal agencies, primarily the DTS, the HDOT, and the Oahu Metropolitan Planning Organization. The transportation-related goals and objectives developed by planning agencies are summarized in Table 1.3-1.

Since the 1960s, public transit has been acknowledged as a key component of local and State plans to meet transportation demands in urban Honolulu. Therefore, in addition to the previously presented quantitative analysis showing the need for transit to address the inadequacy of the existing roadway system to satisfy existing and future travel demand, improvements in the transit system conform to long-standing government policies. Specifically, the Transportation for Oahu Plan, TOP 2025 (April 6, 2001) includes the Regional and

In-Town Bus Rapid Transit (BRT) components. The need for the BRT in the PUC corridor emerged from a transportation system planning process.

In addition to the goals in Table 1.3-1, the goals and objectives in the City and County of Honolulu's Islandwide Mobility Concept Plan (March 1999, updated August 2001) present a vision for integrating transportation and land use planning. This plan, which grew out of the public involvement activities conducted for this project (described further in Appendix A), emphasizes the role of transportation in helping build, strengthen, and connect communities throughout Oahu; focusing growth in designated areas; and enhancing the island's overall quality of life.

The range of government goals and objectives reflected in Table 1.3-1 were used to evaluate the alternatives before the Refined LPA was selected for implementation.

TABLE 1.3-1
LOCAL AND STATE TRANSPORTATION GOALS AND OBJECTIVES FROM PLANS

City and County of Honolulu, General Plan for the City and County of Honolulu (Adopted 1992)
• To create a transportation system which will enable people and goods to move safely, efficiently, and at a reasonable cost; serve all people, including the poor, the elderly, and the physically handicapped; and offer a variety of attractive and convenient modes of travel. • To maintain transportation and utility systems that will help Oahu continue to be a desirable place to live and visit.
City and County of Honolulu, Primary Urban Center Development Plan (Public Review Draft, May 2002)
• Develop a balanced transportation system that reduces reliance on cars and improves alternate modes connecting neighborhoods and activity centers. • Implement land use strategies to achieve a balanced transportation system. • Improve the public transit system, including development of a rapid transit component. • Implement Transportation Demand Management (TDM) strategies. • Review existing plans and establish priorities for roads and road improvements. • Implement the Honolulu Bicycle Master Plan. • Enhance and improve pedestrian mobility.
City and County of Honolulu, Ewa Development Plan (Adopted August 1997)
• Certification of adequate transportation access and services before zoning approval of new residential and commercial development. • Planned rapid transit corridor to connect the City of Kapolei with Waipahu and onward to the Primary Urban Center. • Improved linkages within the region, including to and across the former Barbers Point Naval Air Station. • Design master planned residential communities to support non-automotive travel.
State of Hawaii, Hawaii State Plan (Adopted January 30, 1989)
• An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods. • A statewide transportation system consistent with planned growth objectives throughout the State. • Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in Chapter 226, HRS. • Coordinate State, County, Federal, and private transportation activities and programs toward the achievement of statewide objectives. • Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties. • Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs. • Encourage transportation systems that serve to accommodate present and future development needs of communities. • Promote programs to reduce dependence on the use of automobiles. • Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawaii's natural environment. • Encourage safe and convenient uses of low-cost, energy-efficient, non-polluting means of transportation.

TABLE 1.3-1 (CONTINUED)
LOCAL AND STATE TRANSPORTATION GOALS AND OBJECTIVES FROM PLANS

Oahu Metropolitan Planning Organization Transportation for Oahu Plan, TOP 2025 (Adopted April 6, 2001)
• Develop and maintain Oahu's islandwide transportation system to ensure safe, convenient, and economical movement of people and goods.
• Develop and maintain Oahu's transportation system in a manner that maintains environmental quality and community cohesiveness.
• Develop and maintain Oahu's transportation system in a manner that is sensitive to community needs and desires.
• Develop a travel demand management system for Oahu that optimizes use of existing transportation resources.

1.3.2 Oahu's Transportation Planning Process

This section presents a brief explanation of the transportation planning process in Oahu. This section was added to the FEIS in response to comments received on the MIS/DEIS and SDEIS. The information presented was extracted from the Transportation for Oahu Plan, TOP 2025, which was approved by the Oahu Metropolitan Planning Organization (OMPO) on April 6, 2001.

1.3.2.1 Transportation for Oahu Plan (TOP) 2025 Background

The OMPO, the designated metropolitan planning organization for Oahu, is responsible for the metropolitan transportation planning process requirements. The United States Department of Transportation mandates these requirements for establishing the eligibility of metropolitan areas for federal funds earmarked for ground transportation systems. One requirement is that each major urban area develops a multi-modal long-range plan that documents ground transportation projects selected for federal funding for a minimum time horizon of 20 years. The TOP 2025 was developed within the context of the comprehensive, cooperative and continuing (3C) planning process established and carried out by OMPO and its participating agencies. OMPO is the officially designated regional agency that must ensure that the 3C process addresses all federal concerns regarding various transportation modes on Oahu while satisfying the transportation needs of the state and county.

Current federal surface transportation legislation, enacted in 1998 as the Transportation Equity Act for the 21st Century (TEA-21), requires transportation strategies in metropolitan regions to address several planning factors. This federal law also expanded public participation in the transportation planning process and required increased cooperation among the jurisdictions that own and operate the region's transportation system.

TEA-21 requires that the following seven planning factors be considered (*Title 23, U.S.C., Section 134, Metropolitan Planning, (f) Scope of Planning Process)*:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency.

2. Increase the safety and security of the transportation system for motorized and non-motorized users.

3. Increase the accessibility and mobility options available to people and for freight.

4. Protect and enhance the environment, promote energy conservation and improve quality of life.

5. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

6. Promote efficient system management and operation.

7. Emphasize the preservation of the existing transportation system.

Federal regulations require Oahu's regional transportation plan to have a minimum 20-year planning horizon, be fiscally constrained and be updated at least every five years. (Refer to 23 CFR, Part 450 for details of the federal regulations.) To conform to the requirement for a 20-year planning horizon, the TOP 2025 has a planning horizon of the year 2025. To comply with the requirements that the regional transportation plan be fiscally constrained, the plan includes an analysis of financial resources reasonably expected to be available to fund the transportation infrastructure projects that are included in the plan. Lastly, the TOP 2025 will need to be updated during 2005.

The TOP 2025 goals and objectives were developed at the study outset and reflect the issues and concerns raised by study participants. The following issues were part of the previous long-range transportation plan for Oahu, *2020 Oahu Regional Transportation Plan* (*2020 ORTP)* and were judged to continue to be reasonable for the TOP 2025 planning process:

- Transportation Services
- Quality of Life
- Community Responsibility
- Demand Management

The OMPO Policy Committee adopted a system goal for each of the four major issues for the TOP 2025. A series of objectives were then developed that would accomplish each of the system goals. The *2020 ORTP* System Goals and Objectives were used as a starting point for the discussions; the objectives adopted by the OMPO Policy Committee for the TOP 2025 reflect the current philosophy of OMPO for the future transportation network of Oahu. The seven planning factors dictated by the TEA-21 legislation were also reviewed in formulating the final goals and objectives for the TOP 2025.

The TOP 2025 consists of projects that fall into the following general categories to help achieve the adopted goals and objectives for the TOP 2025:

- Congestion Relief Projects
- Transit and Alternative Modes Projects
- Operations and Safety Projects
- Second Access Projects
- Second Access Projects
- Projects that Support Community Planning Goals
- Projects that Provide Local Circulation and/or Community Access

1.3.2.2 Identifying Projects for Consideration in the TOP 2025

One hundred fifty-three (153) projects were identified as candidate projects using recommendations from the technical staffs of several involved agencies (including projects from the *2020 ORTP*), public comments and a technical analysis of future travel demand with the 2025 Baseline condition.

Based on a future travel demand forecast, the projects to address the capacity deficiencies were identified. A project description was developed for each identified project (in many instances, this project description consisted of a refined definition based on previous planning efforts), and the entire list of potential projects was reviewed. Similar and related projects were combined into a single project. As a result, the initial list of 153 projects was consolidated into a list of 101 projects. This list of projects and the associated projects descriptions were presented to the public in a series of Regional Meetings.

1.3.2.3 The Transportation for Oahu Plan (TOP) 2025

The candidate projects were grouped into six categories based on the project intent. The intent responds directly to project goals and objectives and serves as a useful means for organizing the projects for discussion. These six categories are used in the following paragraphs to describe the projects selected for the TOP 2025. The OMPO Policy Committee also included consideration of system preservation needs in their deliberations.

Many projects addressed goals and objectives that overlap the categories that were used for the TOP 2025 evaluation. For example, a project that relieves congestion will often improve safety and operations. Similarly, a project that provides improved transit service and offers an alternative mode to the traveling public will often divert trips from autos to transit, thus relieving traffic congestion. This discussion recognizes the overlap of project intent but focuses on the primary purpose of each project.

At the same time, while a primary purpose of a project may be to relieve automotive congestion or improve automotive safety and operations of existing streets, any and all improvements funded in the TOP 2025 will be constructed so that transportation efficiency and safety is improved for all roadway users, including motorists, bicyclists, pedestrians and transit riders. These projects include, but are not limited to placement of guard rails, curbing, signage, lane or road widenings and street realignments.

Congestion Relief Projects

Congestion Relief projects were conceived primarily to increase the vehicle-carrying capacity of Oahu streets and highways. They are proposed for facilities and areas with existing levels of severe congestion and locations where travel demand projections show that congestion will worsen over the next 20 years. Adding lanes to freeways and arterials or making improvements to major interchanges are typical of this category of projects.

Transit and Alternative Mode Projects

A number of projects were proposed to provide alternative modes of transportation to the single-occupancy automobile and to use the street and highway infrastructure more efficiently. Bus Rapid Transit (BRT), expanded bus service, paratransit service, vanpool programs, ferry service, bike paths and routes and pedestrian facilities are in this category. Managing travel demand includes many of these alternative modes but also includes strategies to change work behavior (telecommuting, variable work hours and four-day workweeks, among others).

Operations and Safety Projects

Many of the projects were proposed to improve the safety and operations of existing streets and freeways. Intersection improvements, the addition of continuous left turn lanes, street realignments, street or highway widenings, Intelligent Transportation Systems, interchange modifications, freeway ramp and transition lane modifications and general safety improvements fall in this category.

Second Access Projects

Portions of Oahu have limited access to the remainder of the island. Oftentimes, a single facility connects numerous homes and businesses to the larger community. A hostage incident, a major traffic accident, high water or a landslide have and continue to isolate citizens from emergency services, work, school and grocery shopping. In some instances, projects to connect minor "back" roads can provide a second way into and out of an area at a relatively low cost. In other instances, a major new facility would be required to cross one of Oahu's mountain ranges. These projects were not generally perceived as having large traffic carrying capacity, being capable of moving traffic at high speeds, or generally being used on a daily basis. Rather, these projects would provide second access to an area when the primary access is out of service.

Projects in Support of Community Planning Goals

Several types of projects were considered to support a diverse set of community planning goals. This diversity of goals is entirely appropriate given the varied nature of the communities on Oahu, such as new residential and commercial areas, expanding industrial facilities, growing retail areas, and existing developed areas.

Community planning efforts for the Ewa area have identified the need for additional street and highway facilities in the high growth Ewa and Kapolei areas. Projects that are most likely to be consistent with the master plan under development for this area were proposed for TOP 2025, and many are included in the final TOP 2025.

Another type of project within this category is the replacement of the bridge crossing the Kalihi Channel to Sand Island with a tunnel to facilitate movement of freighters into and out of Honolulu Harbor with greater efficiency and capacity.

Beautification projects also may relieve traffic congestion or improve safety or operations, but have as their primary goal the support of community planning goals.

Projects that Provide Local Circulation and/or Community Access

A number of projects were conceived to improve local circulation. In some instances, these projects add new access to an area, such as the Waikiki access from H-1 Ewa-bound or the second access to Leeward Community College. In other instances, the proposed projects close a gap in the street network, such as the Moanalua Road extension, or revise circulation patterns, such as the changes in one-way/two-way operations for Punchbowl and the Piikoi/Pensacola pair. These projects are designed to improve local traffic flow rather than affect regional travel patterns. However, since these projects play an important role in local circulation and access to communities, they merit inclusion in the regional plan.

Projects Included in the TOP 2025

Table 1.3-2 lists the projects selected for inclusion in the TOP 2025 as those that should be given the highest priority for implementation within the constraint of project revenues. The table identifies the general geographic area of the island where the proposed project will be located.

TABLE 1.3-2
TOP 2025 PROJECTS

Area*	Category**	Project Number	Project Description	Estimated Cost (Millions of Year 2000 $)
Oahu	Transit/Alt	I-1	Implement State Bicycle Plan	$ 70.2
Oahu	Transit/Alt	I-2	Implement Van Pool Program	$ 2.5
Oahu	Ops/Safety	I-3	Intelligent Transportation Systems	$ 110.0
Oahu	Ops/Safety	I-4	Travel Demand management	$ 114.7
CO*	Ops/Safety	C-5	Farrington Hwy. EB vertical realignment near Waipahu Dept Rd.	$ 20.0
CO	Ops/Safety	C-7	Kamehameha Hwy. widening Ka Uka to Lanikuhana	$ 97.5
CO	C Relief	C-10	Kunia Rd. widening H-1 to vicinity of Anonui St.	$ 25.9
CO	Local Circ	C-15	Waipahu Depot Rd. widening makai of Farrington Hwy.	$ 3.6
CO	Local Circ	C-16	Waipahu St. eastward extension to Waihona St.	$ 4.5
CO	Ops/ Safety	C-17	Waipahu St. left turn lanes	$ 9.4
EHon*	C Relief	P-38	Kalanianaole Hwy. extend A.M. contraflow lane to Keahole St.	$ 1.2
EHon	Ops/Safety	P-47	Kalanianaole Hwy. Rock fall Protection at Makapuu	$ 20.0
Ewa	Ops/Safety	E-1	H-1 Makakilo Interchange new WB on-ramp	$ 10.9
Ewa	C Relief	E-2	H-1 Kapolei Interchange new interchange	$ 44.3
Ewa	Comm. Plan	E-3	H-1 Palailai Interchange improvements (connects to E-10)	$ 8.5
Ewa	Comm. Plan	E-5	Farrington Hwy. widening Kalaeloa to Kamokila	$ 4.9
Ewa	Ops/Safety	E-6	Farrington Hwy. widening Kapolei Golf Course to Fort Weaver Rd.	$ 31.6
Ewa	Comm. Plan	E-8	Fort Barrette Rd. widening Farrington Hwy. to F.D. Roosevelt Blvd.	$ 21.5
Ewa	C Relief	E-9	Fort Weaver Rd. widening Farrington Hwy. to Geiger Rd.	$ 38.6
Ewa	Comm. Plan	E-10	Hanua St. new roadway Malakole St. to Farrington Hwy.	$ 13.1
Ewa	Comm. Plan	E-11	Kalaeloa roadway improvements	$ 26.9
Ewa	Comm. Plan	E-12	Kalaeloa Blvd. corridor improvements	$ 13.1
Ewa	Comm. Plan	E-13	Kapolei Pkwy. completion (Kapolei to Ewa Bch.)	$ 28.5
Ewa	Comm. Plan	E-14	Makakilo Dr. extension (second access)	$ 8.5
Ewa	Comm. Plan	E-15	Mauka Frontage Rd. Makakilo Dr. to Kalaeloa Blvd.	$ 6.4
Ewa	Comm. Plan	E-17	North-South Road Kapolei Parkway to H-1 (includes new interchange with H-1)	$ 90.0
Koolau. (Wind-ward)	Ops/Safety	K-2	Kahekili Hwy. improvements Haiku Rd. to Kamehameha Hwy. (Note: Improvements will include contraflow in existing right-of-way between Haiku Road and Hui Iwa Street, intersection improvements at Hui Iwa and Kamehameha Highway and other improvements.)	$ 3.5
Koolau. & NS* (Wind-ward)	Ops/Safety	K-15	Kamehameha Hwy. Safety Improvements (Note: Safety improvements to include turn lanes, guardrails, signage, crosswalks, etc. to improve safety and do not include widening except where needed for storage/turn lanes safety improvements.)	$ 100.0

TABLE 1.3-2 (CONTINUED)
TOP 2025 PROJECTS

Area*	Category**	Project Number	Project Description	Estimated Cost (Millions of Year 2000 $)
NS	2nd Access	N-3	Waimea Bay Access Rd. emergency connectors	$ 20.0
PUC*	Ops/Safety	P-0 Baseline	Interstate Route H-1, EB off-ramp to Punahou St. (funded before 2001 but included for completeness	Funding completed
PUC	Transit/Alt	P-1	Honolulu Bicycle Master Plan (Note: $20 million cost shown for TOP 2025 is a portion of the $78.7 million for all elements of the Master Plan	$ 20.0
PUC	Transit/Alt	P-2a	Regional Bus Rapid Transit	$ 268.0
PUC	Transit/Alt	P-2b	In-town Bus Rapid Transit and Bus/Handi-Vans	$ 821.1
PUC	Transit/Alt	P-3	Express Commuter Ferry	$ 20.0
PUC	C Relief	P-6 Baseline	H-1 WB Widening Waimalu viaduct to Pearl City off-ramp	$ 45.0
PUC	C Relief	P-7	H-1 EB widening Waiawa to Halawa	$ 216.8
PUC	C Relief	P-8	H-1 WB widening Vineyard to Middle	$ 121.3
PUC	Ops/Safety	P-9	H-1 WB weaver modification Lunalilo to Vineyard off-ramp	$ 21.0
PUC	Ops/Safety	P-10	H-1 EB widening Ward to Punahou, close Piikoi on-ramp	$ 21.0
PUC	Ops/Safety	P-11	H-1 University Interchange modification	$ 20.7
PUC	Ops/Safety	P-12	H-1 WB widen Waipahu off-ramp	$ 8.4
PUC	Local Circ	P-14	Second access to Leeward Community College	$ 6.0
PUC	Local Circ	P-22	Moanalua Rd. extension Waimano Home Rd. to Waihona St.	$ 4.9
PUC	C Relief	P-23	Nimitz Hwy. improvements Keehi to Pacific St.	$ 192.7
PUC	Local Circ	P-28	Piikoi Pensacola one-way couplet (reverse)	$ 3.6
PUC	Local Circ	P-29	Punchbowl Street conversion to two-way operation	$ 2.0
PUC	C Relief	P-32	Fort Armstrong Tunnel	$ 300.0
PUC	Ops/Safety	P-34	Sand Island Access Rd. widening	$ 4.4
PUC	Comm. Plan	P-35	Sand Island Bridge (replace with tunnel)	$ 200.0
PUC	Local Circ	P-36***	Waikiki access from H-1 Ewa-Bound	$ 90.9
PUC	Comm. Plan	P-40	Kamehameha Hwy. beautification project (Waiawa to Pearl Harbor)	$ 30.1
PUC	C Relief	P-41 Baseline	Puuloa Rd. widening – Salt Lake Blvd. to Nimitz Hwy.	$ 21.6
PUC	C Relief	P-42	H-1 Widening (westbound) through Waiawa Interchange	$ 21.3
PUC	C Relief	P-43	H-1 Widening (westbound) Waiau to Waiawa Interchange	$ 59.5
PUC	C Relief	P-44	Waiawa Interchange Improvements	$ 21.3
PUC	C Relief	P-45 Baseline	H-1 Eastbound: Widen by one lane from Middle St. to Vineyard Blvd	$ 30.0
PUC	C Relief	P-46 Baseline	Salt Lake Blvd. widening: Lawehana St. to Ala Lilikoi (widen from 2 to 4 lanes)	$ 31.0
Waianae	2nd Access	W-2	Waianae Emergency Access Road system	$ 9.3
Waianae	Ops/ Safety	W-5	Farrington Hwy. realignment around Makaha Bch. Park	$ 35.1

TABLE 1.3-2 (CONTINUED)
TOP 2025 PROJECTS

Area*	Category**	Project Number	Project Description	Estimated Cost (Millions of Year 2000 $)
Waianae	Transit/Alt	W-7 Baseline	Leeward Bikeway, Waipio Point Access Rd. to Lualualei	$ 3.0
Waianae	Ops/Safety	W-8	Farrington Hwy. Safety Improvements (Note: Cost estimate reflects intersections improvements only.	$ 25.0
			Total for All Projects:	**$ 3,624.8**

Source: Transportation of Oahu Plan, TOP 2025, Oahu Metropolitan Planning Organization, April 6, 2001.
Notes: * CO = Central Oahu
PUC = Primary Urban Center
NS = North Shore
EHon = East Honolulu
NB = Northbound
SB = Southbound
EB = Eastbound
WB = Westbound

** Categories:
C Relief = Congestion Relief Projects
Transit/Alt = Transit and Alternative Modes Projects
Ops/Safety = Operations and Safety Projects
2nd Access = Second Access Projects
Comm. Plan = Projects that Support Community Planning Goals
Local Circ = Projects that Provide Local Circulation and/or Community Access

***P-36
Project P-36 was designated by the Policy Committee as the lowest priority for selected projects, and extensive review and study will be required.

1.3.2.4 Conclusion

With the TOP 2025 improvements, the future transportation system on Oahu is projected to perform substantially better than a scenario without the proposed improvements. Transit ridership increased by more than 14 percent under the scenario with the TOP 2025 improvements. For the two strongest indicators of congestion on the roadway system (vehicle hours traveled and vehicle hours of delay), the TOP 2025 transportation system performs at congestion levels that are significantly less than the scenario without the improvements. Under the scenario with the TOP 2025 improvements, vehicle hours traveled are projected to decline by 12 percent and the vehicle hours of delay on the roadway system are projected to decline by 23 percent.

Performance of the TOP 2025 with respect to meeting the identified goals and objectives was also evaluated. All objectives were met by the proposed list of transportation improvements.

The financial analysis demonstrates that the TOP 2025 highway and transit projects for the fiscally constrained regional transportation plan will have sufficient revenues through a combination of existing revenue sources and additional revenue assumed to be in place over the next 20 years. The total identified funding needs included the estimated cost of the TOP 2025 projects of slightly more than $3.6 billion along with system preservation needs for state highways identified as an additional $1.05 billion over the life of the 25-year plan.

The total identified need of almost $4.7 billion exceeded the revenues that could be assumed to be in place from only existing sources.

In addition to the traditional FHWA, FTA, state and local contributions to TOP 2025 projects, two other sources of revenues were identified. The first is developer contributions, which may involve private financing of selected elements of projects, facilities or land donations. The other additional revenue source results from the typical increases in the tax rates of state highway funding.

The assumptions used to project the additional State Highway Special Fund revenues are reasonable based on historical trends in tax rate increases over the last 25 years. Likewise, the assumption of an average developer contribution of 20 percent of potential developer-funded projects, which will be developed in a forum outside of the TOP 2025, is also valid. As a result of these assumptions and the projections of federal, state and local highway funding levels, the revenues are sufficient to fund the TOP 2025 recommendations.

The TOP 2025 recommendations define a transportation system for Oahu's future that will help to achieve the four goals adopted for the plan. The projects included in the TOP 2025 achieve these goals within the fiscal constraints of funding that will be available within the 25-year time frame of the plan.

1.3.3 Oahu Trans 2K Public Outreach Planning Process

The Oahu Trans 2K series of participatory workshops (the islandwide transportation component of the 21st Century Oahu visioning program) began in the Fall of 1998, and has thus far included five rounds of community outreach meetings. Together, DTS and HDOT went out to the public to provide background information on mobility issues and listen to the public. The meetings were widely advertised and well attended. These meetings represented a continuation and acceleration of public outreach meetings that had begun on a more informal basis a year earlier.

During Round 1 of the meetings (September/October 1998), participants viewed an introductory video and presentation boards showing possible solutions to transportation problems. Participants were then encouraged to brainstorm about neighborhood and islandwide transportation issues and possible solutions. They made comments directly onto large area maps. The results of this round of meetings were compiled into a database of 2,400 specific ideas, and were used to develop a draft islandwide mobility concept.

In Round 2 of the meetings (November/December 1998), participants viewed a video summarizing the Round 1 process and a short presentation that outlined the draft islandwide mobility concept, which was developed from the Round 1 input. With the assistance of trained facilitators, participants gathered in groups organized by neighborhood to review workbooks tailored to each transportation planning zone.

After two rounds of community-based meetings, the input obtained was incorporated into the Islandwide Mobility Concept Plan, which was prepared and issued in March 1999 and reprinted with updates in August 2001. This plan articulated three central goals:

- Improve in-town mobility;
- Strengthen islandwide connections; and
- Foster livable communities.

The Round 3 meetings were held during March/April 1999 in combination with the meetings of 19 vision teams across the island. Information presented included the Islandwide Mobility Concept Plan and transit alternatives for a high-capacity transit spine in the primary transportation corridor. The Round 3 meetings also announced the upcoming formal scoping for the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS), which occurred in May 1999.

In Round 4 of the meetings (October 1999), the plans for public transit, as discussed in the first three rounds of meetings, were presented for questions and discussion. Discussion included the operation of the passenger loading platforms in the middle of the street, center-running transit operations in comparison to

curbside-running, the use of "high-tech" approaches to provide schedule and waiting time information to transit users, possible features of transit vehicles, and route alignment details.

A Round 5 Oahu Trans 2K meeting was held on August 14, 2001 at Neal Blaisdell Center (NBC). This community open house included informational displays on different aspects of the BRT system and the Oahu Trans 2K program, specifically the project refinements developed by the Pearl City/Aiea, Kalihi, Downtown/Kakaako, and Mid-Town/University Working Groups. An informational briefing on the Working Group process and BRT project refinements was presented.

Five rounds of community-based meetings showed that there is a strong interest in transit technology, how a new transit technology would integrate into the community and with the existing bus system, and the funding aspect of the project.

1.4 ROLE OF THE FEIS IN PROJECT DEVELOPMENT

This Section provides a brief overview of the formal transportation project development process and the role of the FEIS in that process in compliance with the statutory requirements of the National Environmental Policy Act (NEPA) and the Hawaii Environmental Impact Statement (EIS) Law (Chapter 343, Hawaii Revised Statutes [HRS]).

An MIS was a prescribed federal planning study that is conducted as one of the first steps in project development when a need for a major metropolitan transportation investment is identified and federal funding is potentially involved. A transportation solution can consist of roadway, transit, pedestrian, and other elements singly or in combination. The MIS evaluates alternative transportation solutions to the mobility problems of the corridor.

A DEIS addresses the potential environmental impact of a project, and meets the environmental review requirements of the NEPA and the Hawaii EIS Law. Combining the MIS with the DEIS allows for a more comprehensive analysis of possible environmental impacts and alternatives, and facilitates project delivery. No program decisions can be finalized until these processes are completed.

The DEIS process begins with scoping, followed by preparation of the document. The Notice Of Intent (NOI) for the DEIS was published in the April 27, 1999 Federal Register. The NOI informed the public and agencies that an EIS would be prepared, and formally announced the beginning of the scoping process. The formal scoping meeting for the DEIS was held on May 11, 1999.

In accordance with the Hawaii EIS Law, the EIS Preparation Notice was published in the April 23, 1999 The Environmental Notice.

The DTS and FTA distributed the Primary Corridor Transportation Project, Major Investment Study/Draft Environmental Impact Statement [MIS/DEIS] (August 2000) to agencies and the public in August 2000. Following the release of the MIS/DEIS, there was an agency and public review period from August 23, 2000 to November 6, 2000.

The Locally Preferred Alternative (LPA) may be one of the alternatives addressed in the DEIS, a modification of one of those alternatives, or a hybrid combining the best features of several. Subsequent to the release of the MIS/DEIS and the public and agency comment period, the City Council selected the BRT Alternative as the LPA. The identification of the LPA is a signal to the FTA that sufficient local consensus exists on a particular project alternative to proceed to the Preliminary Engineering/Final Environmental Impact Statement (PE/FEIS) phase and beyond the environmental review process.

The City Council approved local funds for the PE/FEIS effort in the 2001 City Capital Improvement Program budget. Federal funds were programmed in the 2001 OMPO Overall Work Program and TIP, and FTA has approved grants for the work. Financial analysis determined that sufficient revenues will be available for TOP 2025 highway and transit projects including the BRT project. By being included in the TOP 2025, the BRT Alternative is eligible to be included in future TIPs.

As a result of the Working Groups and comments received on the MIS/DEIS, the DTS proposed to amend the LPA to include new and modified components, which the City Council approved on August 1, 2001. Since the refinements were proposed after the MIS/DEIS was completed and distributed and because the refinements were anticipated to have environmental impacts that were not disclosed in the MIS/DEIS, a Supplemental Draft Environmental Impact Statement (SDEIS) was prepared.

The SDEIS was distributed in March 2002. The public and agency review period was from March 22, 2002 to May 7, 2002. The public hearing was held on April 20, 2002.

Following the public comment period for the SDEIS, a State FEIS complying with Chapter 343 HRS was prepared. The State FEIS responded to all comments received on the MIS/DEIS and SDEIS. The release of the State FEIS was announced by publishing a Notice of Availability (NOA) in The Environmental Notice on December 8, 2002. The Governor of the State of Hawaii accepted the State FEIS on November 29, 2002, completing the environmental review process under the State EIS Law. Publication of acceptance of the State FEIS by the Governor was followed by a 60-day legal challenge period.

This separate federal FEIS has been prepared to comply with NEPA requirements. Similar to the State FEIS, this FEIS responds to all comments received on the MIS/DEIS and SDEIS. The release of this FEIS and the acceptance of comments on the FEIS within a 30-day comment period will be announced through publication of a Notice of Availability (NOA) in the Federal Register, The Environmental Notice, special City publications, and local newspapers. The FTA will consider these comments in its determination on the issuance of the Record of Decision (ROD) for the IOS of the Refined LPA.

A 30-day minimum waiting period after publication of the FEIS is required by NEPA before the ROD of for the IOS can be issued. The ROD, which will be published in the Federal Register, will document the decision made on the proposed action and the reasons for that decision. A separate ROD will cover the remainder of the Refined LPA at a future time.

CHAPTER 2 ALTERNATIVES CONSIDERED

CHAPTER OVERVIEW AND ORGANIZATION

This chapter is organized in two parts. Section I is a summary of the Initial Operating Segment (IOS) from Iwilei to Waikiki, which will be the first component of the Refined Locally Preferred Alternative (Refined LPA) to be implemented. Operation of the IOS will begin in 2005; project details and analyses provided are for the Year 2006, the first year after implementation of the IOS.

Section II is a description of the three alternatives analyzed for the entire primary transportation corridor in this FEIS, the No-Build Alternative, the TSM Alternative, and the Refined LPA.

I. IWILEI TO WAIKIKI (IOS)

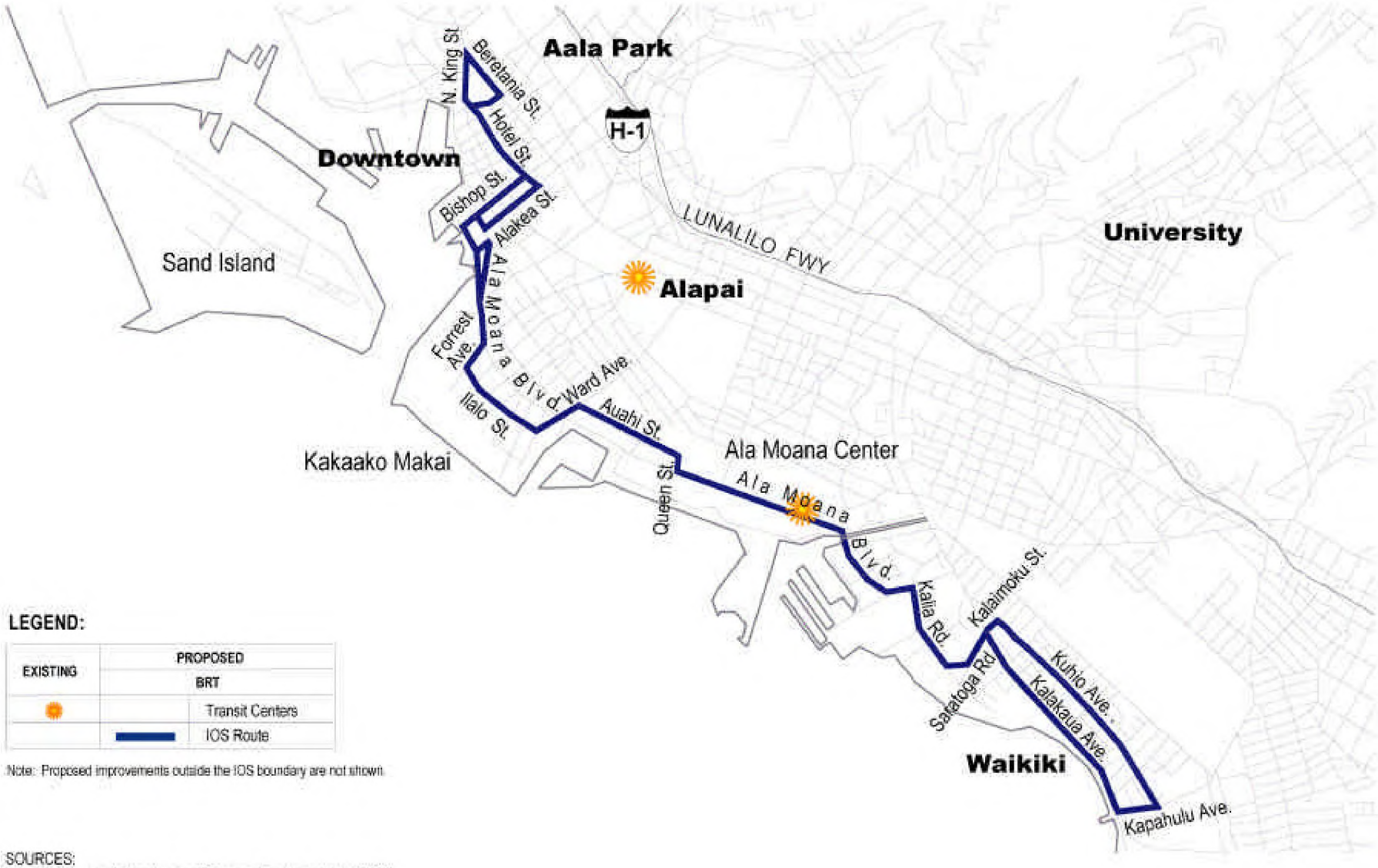
The first segment of the Refined LPA that will be constructed is between Iwilei and Waikiki and it is called the IOS in this document. It is shown in Figure 2-1. Construction will consist of concrete lanes, signal priority, and widening of sections of Ala Moana Boulevard and Kalia Road. Construction at the transit stops will include a 13-inch high platform, benches and canopies (except in historically sensitive locations). The IOS will use hybrid diesel-electric vehicles operating at-grade in exclusive or semi-exclusive lanes for 2.5 miles and in mixed traffic for 3.1 miles. The IOS will provide frequent service and direct access to major activity destinations and residential neighborhoods. BRT service will operate every six minutes during peak hours and every ten minutes during off-peak hours.

The IOS will have a travel time between Downtown and Waikiki via the Ala Moana Boulevard corridor of 25 to 30 minutes. This compares to travel time between Downtown and Waikiki using either the existing Route 19, Route 20, or Route 42 local buses of approximately 35 to 45 minutes. The IOS will also provide transportation connections between emerging redevelopment areas such as Kakaako Makai, located between Downtown and Ala Moana, and other major activity locations along the IOS alignment. From the proposed UH Medical School in Kakaako Makai, the IOS will provide an eight minute travel time to Downtown, while it takes sixteen minutes today, including walk time and average wait time for TheBus. Similarly, travel time using the IOS between the UH Medical School and Ala Moana Center will be eight minutes versus ten minutes using today's transit service. Travel time between Ward Center and Waikiki Beach is thirty-three minutes by today's transit service. This travel time will be shortened by fifteen minutes to eighteen minutes with the IOS, including average wait and walk times.

Convenient connections between the IOS and circulator, local, and express buses will occur at Aala Park, along Hotel Street in Downtown, at Ala Moana Center, and along Kuhio Avenue in Waikiki.

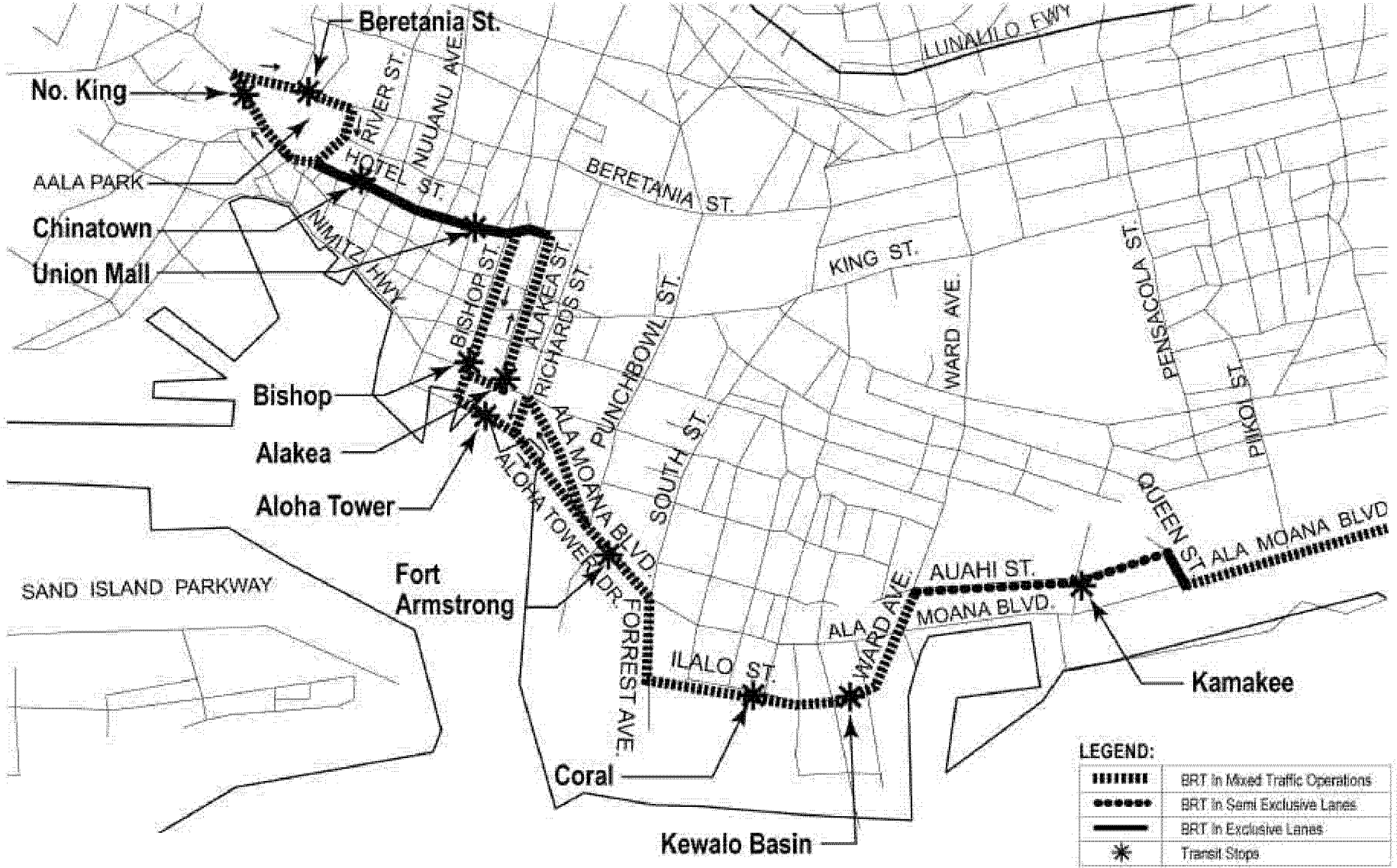
Along a portion of the IOS's length, BRT vehicles will operate at-grade in exclusive or semi-exclusive transit lanes. In other locations, the IOS will operate in mixed traffic. Figures 2-2A and 2-2B depict the locations of the IOS exclusive and semi-exclusive lanes.

The transit stops will have more amenities than the typical bus stop with 13-inch high raised platforms that provide level boarding to low-floor buses, and covered waiting areas with seating, lighting, and landscaping. Some variations will occur due to space limitations. A rendering of the proposed Hobron Stop in Waikiki is provided in Figure 2-3A, as an example. Some of the stops will also be provided with signs indicating the waiting time until the next vehicle arrives. Figure 2-3B depicts a typical BRT stop. The entire IOS system will be designed for compliance with the Americans with Disabilities Act (ADA).



Initial Operating Segment (IOS)

Figure 2-1

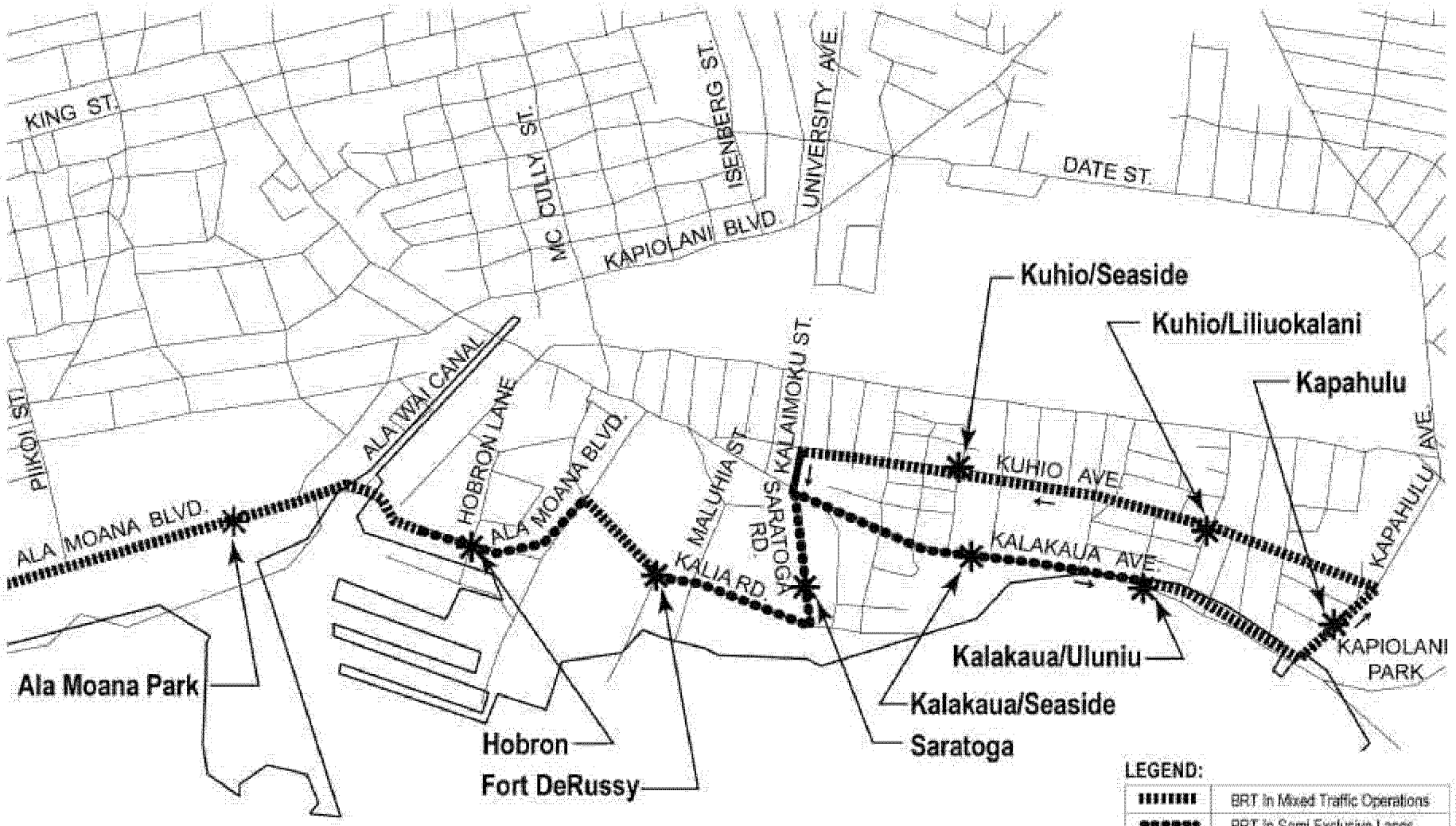


SOURCE:
Parsons Brinckerhoff, May 2002.

Scale: 0 .125 .25 mi

IOS Priority Lanes And Transit Stops

Figure 2-2A



SOURCE:
Parsons Brinckerhoff, May 2002.

Scale: 0 .125 .25 mi

IOS Priority Lanes And Transit Stops

Figure 2-2B

AR00014918

View of Discovery Bay at Ala Moana Blvd. and Hobron Lane.

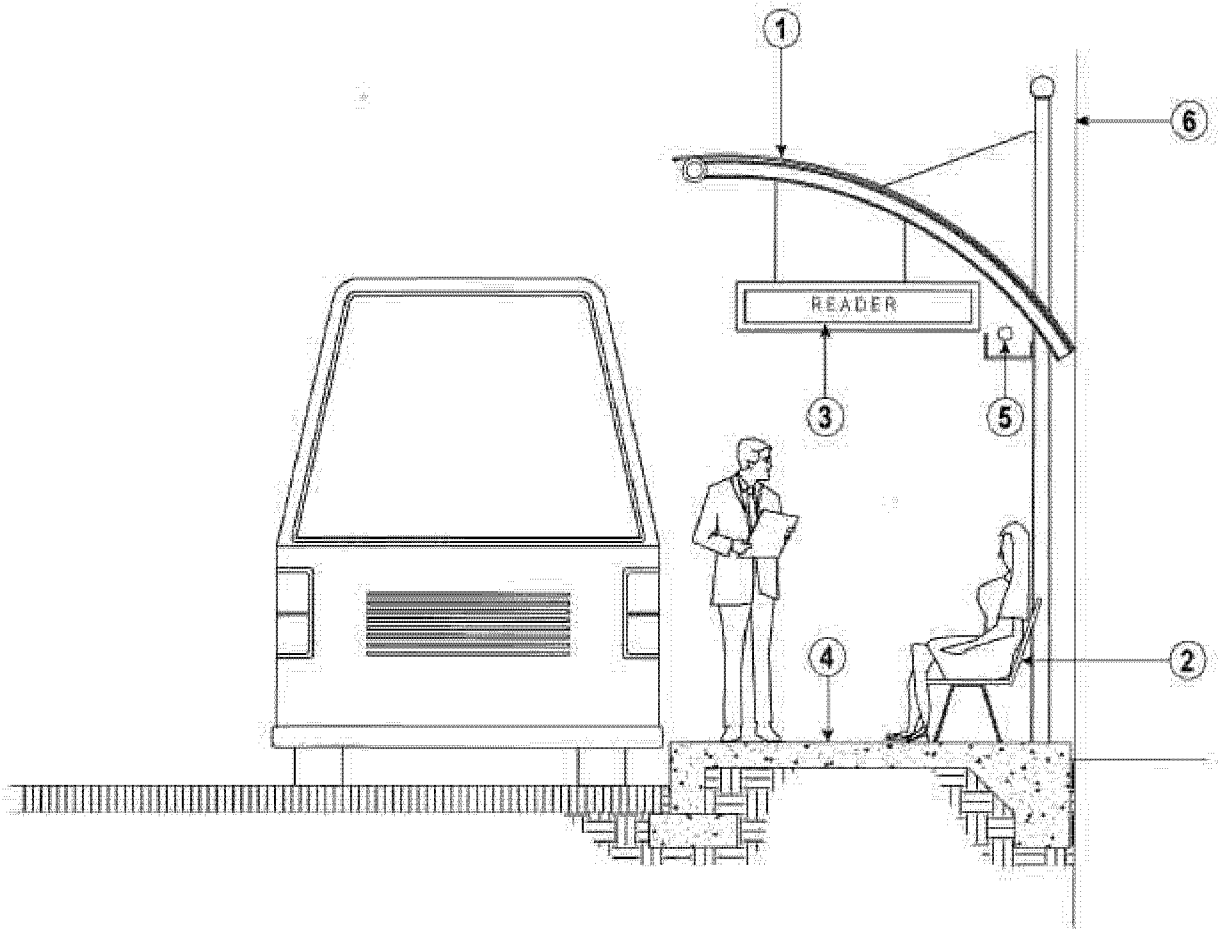
A typical stop, such as this one at Discovery Bay on Hobron Lane, will have a canopy designed to allow visual connection, benches, trash receptacle, information board, and a 13-inch platform for level boarding.

BRT canopies fronting the Discovery Bay retail facade would be located to work with entrances and allow visual connections.

SOURCE:
Urban Works, 2001.

Renderings of Hobron Lane Stops

Figure 2-3A



NOTES:

1. Canopies To Be Located Intermittently Over Lenght Of Platform
2. Seating (Typical)
3. Transit Stop Locator Sign (2-Sided)
4. 13"-High Raised Platform
5. Light Fixtures
6. Right-Of-Way or Edge of Building

A typical stop will have a canopy designed to allow visual connection, benches, trash receptacle, information board, and a 13-inch platform for level boarding.

SOURCE:
SSFM International, Inc. 2002.

NOT TO SCALE

Typical Section of BRT Stops

Figure 2-3B

AR00014920

1) IOS Routing

Traveling in the Koko Head direction, the IOS will start at Aala Park and proceed to the Hotel Street Transit Mall via River Street. From Hotel Street it will continue in the makai direction on Bishop Street to Aloha Tower Drive. From Aloha Tower Drive, the IOS will continue in the Koko Head direction on Ala Moana Boulevard and then turn in the makai direction onto Forrest Avenue. It will then turn in the Koko Head direction onto Ilalo Street and then turn in the mauka direction which becomes Ward Avenue on the mauka side of Ala Moana Boulevard and then Koko Head at Auahi Street.

Along Auahi Street the BRT will be in extra-wide semi-exclusive curb lanes that permit the on-street parking to remain. At the Koko Head end of Auahi Street, the route will turn onto the short Queen Street segment to rejoin Ala Moana Boulevard and head Koko Head towards Waikiki. Along Ala Moana Boulevard, between Queen Street and the Ala Wai Canal, the BRT will operate in the curb lane in mixed traffic. Between the Ala Wai Canal and Kalia Road, Ala Moana Boulevard will be reconfigured to allow an additional lane in each direction. These lanes, formed by reducing the median and narrowing the travel lanes, will be semi-exclusive curb lanes shared with local buses, private buses and right-turning vehicles.

From Ala Moana Boulevard, the route will turn makai on Kalia Road and enter Fort DeRussy. The route will continue along Kalia Road to Saratoga Road, with Kalia Road being widened by one lane in each direction between the Hale Koa Hotel and Saratoga Road. The alignment will turn mauka on Saratoga Road. The BRT will be in semi-exclusive lanes on Kalia Road from Maluhia Street to Saratoga Road, and on Saratoga Road from Kalia Road to Kalakaua Avenue. At the intersection of Saratoga Road and Kalakaua Avenue, the route will split into a one-way couplet on Kalakaua and Kuhio Avenues. The Koko Head-bound transit lane will be semi-exclusive, using the makai curb lane of Kalakaua Avenue until after the stop at Uluniu Street where it will transition mauka in mixed traffic to turn onto Kapahulu Avenue. The Kapahulu transit stop will be on the Koko Head side of Kapahulu Avenue and will not affect Kapiolani Park. The transit stop improvements at this site will be within the 18-foot-wide public sidewalk area. The return loop will turn Ewa onto Kuhio Avenue, and the Ewa-bound buses will operate in mixed traffic using the mauka curb lane of Kuhio Avenue. The alignment will turn onto the Ewa side of Kalaimoku Street to return to Saratoga Road. Within Waikiki, the BRT lanes will mostly be curbside semi-exclusive lanes shared with local buses and private transit vehicles. The exceptions will be the Kalaimoku contra-flow lane which will be an exclusive BRT lane; and Kapahulu and Kuhio Avenues which will be mixed-flow operations.

In the Ewa direction, the IOS will travel Ewa from Kalaimoku Street in Waikiki following the reverse routing described for the Koko Head-bound direction, except that, at the intersection of Bishop Street/Nimitz Highway, the branch will turn Koko Head onto Nimitz Highway, then mauka onto Alakea Street, left on Hotel Street and then travel along Hotel Street to the N. King Street Transit Stop at Aala Park.

Existing attractions that will be served by the IOS include Chinatown, the Central Business District, Aloha Tower Marketplace, Hawaii Maritime Museum, Piers 10 and 11 cruise ship terminal, Restaurant Row, Kakaako Waterfront Park, Children's Discovery Center, Ward Centre and Entertainment Complex, Ala Moana Center, Ala Moana Beach Park, Fort DeRussy, Kapiolani Park, and major hotels, high-rise residences, offices, and commercial/recreation destinations in Waikiki. Future land uses that would be served include future phases of Aloha Tower Marketplace, a new cruise ship terminal at Pier 2, the proposed University of Hawaii School of Medicine and related bio-medical research facilities, the proposed Hawaii Science and Technology Center, commercial plus retail development at Kewalo Basin, and the Waikikian and Outrigger redevelopment projects in Waikiki.

2) Construction Elements

Construction is scheduled to commence before the end of 2003, with completion projected in 2005. The major construction elements of each roadway segment are summarized in Table 2-1. The improvements include construction of transit stops, concrete bus lanes, pavement rehabilitation, transit priority traffic signal

TABLE 2-1
SUMMARY OF MAJOR ITEMS OF WORK

Roadway Segment	Major Items of Work
Hotel Street	Curb/sidewalk modifications at Bishop St. and Alakea St. intersections.
Bishop Street	Transit stop construction with a 13-inch high raised platform.
Alakea Street	Transit stop construction with a 13-inch high raised platform.
Aloha Tower Drive	Transit stop construction with a 13-inch high raised platform and pavement rehabilitation.
Richards Street Extension	Pavement rehabilitation.
Nimitz Highway/Ala Moana Blvd.	Transit stop construction with 13-inch high raised platforms and pavement rehabilitation.
Ilalo Street	Transit stop construction with 13-inch high raised platforms.
Auahi Street	Transit stop construction with 13-inch high raised platforms, concrete pavement construction, and pavement rehabilitation.
Queen Street	Concrete pavement construction.
Ala Moana Boulevard (Ala Wai Canal to Kalia Road)	Roadway widening to accommodate two semi-exclusive bus lanes, transit stop construction with 13-inch high raised platforms, concrete pavement construction, pavement rehabilitation, utility relocations, landscaping, and roadway lighting improvements.
Kalia Road	Roadway widening to accommodate two semi-exclusive bus lanes, transit stop construction with 13-inch high raised platforms, concrete pavement construction, pavement rehabilitation, landscaping, and roadway lighting improvements.
Saratoga Road	Transit stop construction with 13-inch high raised platforms, concrete pavement construction, and pavement rehabilitation.
Kalakaua Avenue	Concrete pavement and transit stop construction with 13-inch high raised platforms.
Kapahulu Avenue	Transit stop construction with a 13-inch high raised platform.
Kuhio Avenue	Transit stop construction with 13-inch high raised platforms, concrete pavement construction between Seaside Avenue and Kanekapolei Street, concrete pavement rehabilitation, roadway lighting improvements, and traffic signal modifications.
Kalaimoku Street	Concrete pavement construction.

Source: Parsons Brinckerhoff, June 2003.

improvements, roadway widening, landscaping, utility relocations, modifications to wheelchair ramps, sidewalks, and driveways, signage, striping, roadway lighting, and other work related to prioritization.

3) Transit Technology for IOS

The City plans to use hybrid diesel-electric BRT buses, replacing the existing diesel buses, to operate on the IOS because this technology harmonizes with the higher densities and pedestrian orientation of Honolulu's Urban Core. A key objective is to enhance the quality of urban life by minimizing adverse noise and air pollution impacts from buses. The City intends to order new low-floor hybrid diesel-electric buses prior to the start of IOS operations in 2005.

4) Capital Costs

The total capital cost for the IOS components is estimated to be $48.1 million in 2002 dollars and $51.0 million in Year of Expenditure (YOE) dollars. Components include site preparation, sidewalks and roadways, landscaping and utility work, BRT stops, and restoration of adjacent utility infrastructure. The project is fully funded through a combination of FTA sources matched by City General Obligation Bonds. The IOS capital cost funding will come from a $31 million city appropriation (FY 2003) and two FTA appropriations in FY 2002 and FY 2003 totaling $20 million. The IOS construction will be completed by 2005.

The cost of the ten buses is not included since these vehicles will be acquired as part of the normal fleet expansion and replacement program. Some of the existing bus routes are proposed to be modified to avoid service duplication with the IOS. This modification will result in a reduction of the buses required for these routes such that the total size of the City's bus fleet is not expected to change with implementation of the IOS. The cost of the IOS vehicles is separate from the capital cost of the IOS since all ten vehicles needed for the IOS operation will be purchased with City (non-Federal) funds as part of the regular fleet replacement program that will occur with or without IOS implementation. Engineering design, owner administration, taxes and contingencies are included in the total. The cost by component in 2002 dollars is shown in Table 2-2.

TABLE 2-2
CAPITAL COST SUMMARY
(MILLIONS OF 2002 DOLLARS)

Project Component	Estimated Cost
Sidewalks/ Roadways	$20.57
BRT stops	$6.91
Landscaping	$6.03
Traffic Signal Improvements	$8.23
Utilities	$6.34
Total	**$48.08**

Sources: Rider Hunt Levett & Bailey Ltd., November 2002.
Note: The cost of the ten vehicles needed for the IOS operation is not included, because the vehicles are part of the existing fleet replacement program."

5) O & M Costs

Table 2-3 presents the annual O&M costs in 2002 dollars.

TABLE 2-3
ANNUAL OPERATING AND MAINTENANCE COST SUMMARY, 2006[1]
(2002 DOLLARS)

No-Build Condition	IOS	Difference
$119,595,000	$119,330,279	$264,721

Source: Parsons Brinckerhoff, March 2003.
Note: 1) Excludes TheHandi-Van O&M cost.

As indicated in Table 2-3, O&M costs for the entire bus system, including the IOS in 2006, but not TheHandi-Van operations, would be about $119.6 million (in 2002 dollars). This compares to current 2002 operating costs for the existing bus system of an estimated $117.6 million, not including TheHandi-Van operations.

The proposed bus system with the IOS will yield about $264,700 in annual O&M savings, expressed in 2002 dollars. The amount of new BRT service will be offset by a slightly larger reduction in existing services. The O&M costs in 2006 will be financed through a combination of passenger fares, FTA formula funds and City general funds, as is the case today.

II. 2025 ALTERNATIVES

This part of the Chapter defines the three alternatives analyzed for the entire primary transportation corridor in this FEIS. It also describes other alternatives that were considered but eliminated due to failure to satisfy purpose and need requirements and/or due to other concerns such as public opposition, significant environmental impacts and lack of financial feasibility.

The three alternatives that meet the four purpose and need requirements stated in Chapter 1, although to varying degrees, are:

- The No-Build Alternative: The No-Build Alternative consists of a reconfiguration of the present bus network to a hub-and-spoke pattern, with modest expansion of bus service in developing areas (e.g., Kapolei) to maintain existing service levels.
- Transportation System Management (TSM) Alternative: This was a required alternative in the Federal Transit Administration (FTA) New Starts process when the project started. It is no longer required. The TSM Alternative has been retained in the FEIS so that the comparison to the TSM Alternative that led to the selection of the Refined LPA is available to the reader. In addition to the reconfiguration of the present bus route network to a hub-and-spoke network, this alternative includes expansion of service by 14 percent over the No-Build Alternative, plus some bus priority treatments on arterials in the Primary Urban Center (PUC) and in Leeward Oahu.
- Refined Locally Preferred Alternative (Refined LPA): This alternative builds on the hub-and-spoke bus system in the other alternatives, and adds Regional and In-Town Bus Rapid Transit (BRT) routes. The Regional BRT element includes a continuous H-1 BRT Corridor from Kapolei to Downtown using a.m. and p.m. contraflow zipper lanes and express lanes. The In-Town BRT component consists of a high capacity transit spine from Middle Street to Iwilei, an Iwilei-Waikiki Branch via Kakaako Makai, a University Branch between Downtown and UH-Manoa, and a Downtown-Waikiki Branch via Kakaako Mauka.

All three alternatives include the recently updated regional highway plan contained in the Oahu Metropolitan Planning Organization's (OMPO's) Transportation for Oahu Plan (TOP 2025).

Section 2.1 summarizes the development and evaluation of candidate alternatives that were considered to meet the purpose and need requirements. It describes the development of the three alternatives carried forward for detailed assessment. Section 2.2 provides a physical description of the three alternatives. Sections 2.3 and 2.4 present capital and operating cost information on each alternative. Section 2.5 presents the proposed implementation schedule for each alternative. Section 2.6 describes the alternatives that were analyzed and eliminated.

2.1 EVOLUTION OF THE ALTERNATIVES CARRIED FORWARD

The alternatives described in this Chapter evolved over the course of developing the FEIS through an iterative process wherein a wide-range of options was progressively analyzed in increasing detail until it was winnowed down to the three "best fit" alternatives.

Even after the initial alternatives were winnowed down to the best fit alternatives, they underwent continual refinement using input from many sources including the Oahu Trans 2K meetings, formal "scoping" meetings held for the general public and agencies (described in Chapter 1), and working group meetings and other agency and public input. Public and agency involvement activities that have been conducted to date are discussed in more detail in Appendix A. Section 2.6 provides additional information on the evaluation of options, and how the options being carried forward were selected.

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The first step in the evolution of the alternatives involved combining information gathered from public and agency outreach with the results of prior studies to identify a broad range of alternatives for consideration in addressing the project purposes and needs. Public input was obtained primarily through the 21st Century Oahu Visioning Process and its transportation component, Oahu Trans 2K. The 21st Century Oahu Visioning process began in September 1998, and consisted of a series of neighborhood-based community meetings designed to enhance public input in planning a vision for Oahu communities.

The Oahu Trans 2K process has involved four rounds of public meetings in 19 districts throughout the island, a single, fifth round meeting held at Neal Blaisdell Center, and a series of meetings with working groups representing five geographic subdivisions of the primary transportation corridor. The first two rounds of meetings resulted in the Islandwide Mobility Concept Plan (1999, Updated in August 2001). This Plan, described in Chapter 1, crystallized transportation goals and objectives for the island, and outlined transportation alternatives for the primary transportation corridor.

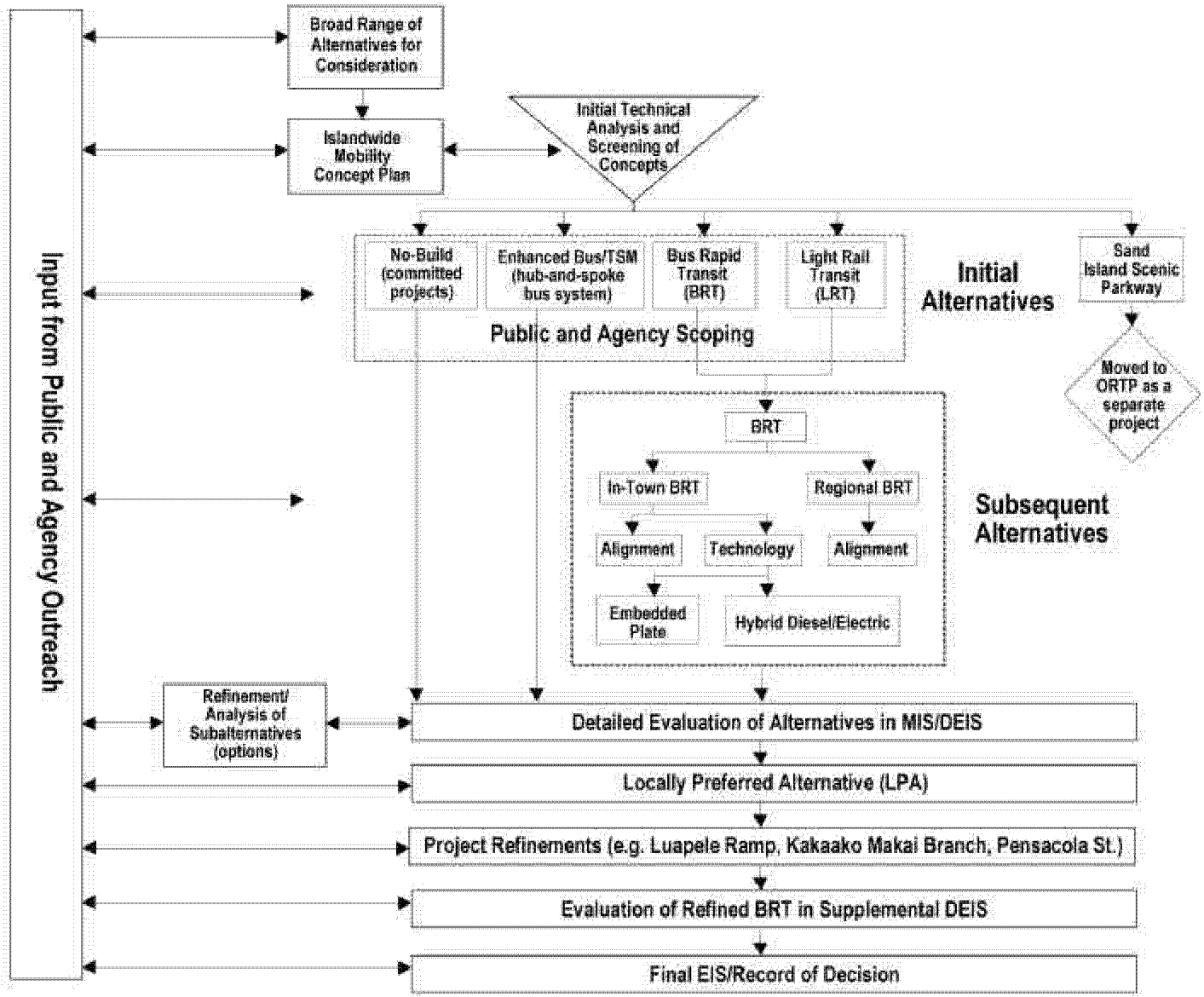
In addition to public and agency input, alternatives were developed based on site visits, review of City and State plans, existing and projected land use and travel demand patterns, environmental constraints, and other research. Transportation alternatives were configured to support land uses that would boost transit ridership and sustain livable communities. This will maximize the efficiency and effectiveness of the transportation system, and create a mutually supportive transportation system and land use development pattern.

After Rounds 1 and 2 of the Oahu Trans 2K meetings, public and agency input was combined with technical analysis to define an initial set of alternatives: No-Build, Enhanced Bus/Transportation System Management (TSM), Bus Rapid Transit (BRT), and Light Rail Transit (LRT) (see Figure 2.1-1). These alternatives were defined as follows:

- The No-Build Alternative consisted of the existing bus system plus expansion of bus service in developing areas (e.g., Kapolei) to maintain as consistent a level of bus service as today.
- Transportation System Management, or TSM, refers to a package of relatively low to moderate cost measures designed to make more efficient use of the existing transportation infrastructure. The Enhanced Bus/TSM Alternative reconfigured the present predominately radial bus route network to a hub-and-spoke network.
- The BRT Alternative built on the TSM Alternative, and included bus priority measures and a trolley system between Downtown Honolulu and Waikiki.
- The LRT Alternative introduced a new mode, an at-grade light rail system. Three alignment alternatives were analyzed. The base alternative routing was between Middle Street and UH-Manoa. A second alternative extended the route from Middle Street to Pearlridge, and a third extended the route still farther to Waipahu. An alignment along Nimitz Highway fronting the Airport was also compared to an alignment on Salt Lake Boulevard.
- The concept for a direct connection between Keehi Interchange and Kakaako via Sand Island was developed to provide a more direct and scenic gateway entry to Waikiki and Kakaako for visitors and others from the Airport and points Ewa. This was called the Sand Island Scenic Parkway, or SISP. Options were analyzed for pairing SISP with the BRT and LRT Alternatives.

Transportation Demand Management (TDM) measures were included in all the alternatives being developed. TDM measures are strategies that reduce or shift the time of travel by private automobile, and include such measures as vanpooling (subsidized vehicles used for commuter ride-sharing), and parking constraints or surcharges. The same TDM assumptions are incorporated in all of the alternatives, such as continued growth of the vanpool program and growth in bicycle and pedestrian travel.

The initial alternatives above (No-Build, Enhanced Bus/TSM, BRT and LRT, and the SISP concept) were described in the Environmental Impact Statement Preparation Notice (EISPN) and Notice of Intent to Prepare



Alternatives Development And Screening Process

Figure 2.1-1

an EIS (NOI), both of which were published in April 1999. These are formal public notifications that are a part of the environmental review process, and are discussed in more detail in Chapter 1.

After publication of the EISPN and NOI, public comments were reviewed and detailed technical analyses were performed to evaluate these alternatives. This included route alignment engineering, travel demand forecasting, environmental studies, cost estimating, and preliminary financial studies. Based on these technical studies and the comments received on the EISPN, the initial alternatives were reconfigured to enhance their efficiency, cost-effectiveness, and ability to support mobility, land use and quality of life goals.

Section 2.6 contains a discussion of the comments pertaining to alternatives that were received in response to the EISPN. The best features of the initial alternatives were combined to create improved alternatives. A new BRT Alternative was developed as a hybrid, containing the best features of the initial BRT and LRT Alternatives. The LRT Alternative was dropped because analyses revealed that BRT using electric-powered or hybrid-electric-powered vehicles could accomplish virtually all of the objectives of LRT at substantially less cost. In addition, highway alternatives to the Regional and In-Town BRT and LRT systems were identified and subsequently eliminated from further consideration as alternatives.

The alternatives carried forward through Rounds 3 and 4 of the Oahu Trans 2K process were:

1. No-Build: Similar to the initial No-Build Alternative;
2. TSM: A refinement of the initial Enhanced Bus/TSM Alternative;
3. BRT: A hybrid alternative containing the best features of the initial BRT and LRT Alternatives; and
4. BRT/SISP: A combination of the BRT Alternative with Sand Island Scenic Parkway.

In Rounds 3 and 4 of the Oahu Trans 2K meetings, the above revised alternatives were presented, and public input confirmed the major concepts and provided additional input on the alternatives that were used to further refine them.

Subsequent to the Round 4 Oahu Trans 2K meetings it was decided, based upon input from coordinating public agencies, to move the Sand Island Scenic Parkway element forward apart from the transit alternatives being considered in the MIS/DEIS. Separating SISP from the transit element permitted a decision on the "Locally Preferred" transit alternative while SISP moves through the regional planning and then project development processes.

The three alternatives that were studied in the MIS/DEIS were:

- No-Build Alternative: The No-Build Alternative consisted of expansion of bus service in developing areas to maintain existing service levels by adding buses and developing new routes.
- Transportation System Management (TSM) Alternative: The primary features of this alternative were the reconfiguration of the present bus route network to a hub-and-spoke network, and bus priority treatment on some In-Town streets.
- Bus Rapid Transit (BRT) Alternative: This alternative built on the hub-and-spoke bus system in the TSM Alternative, and added Regional and In-Town BRT routes. The Regional BRT element included a continuous H-1 BRT Corridor from Kapolei to Downtown using a.m. and p.m. zipper lanes and new express lanes. The In-Town BRT component was comprised of a high capacity transit spine from Middle Street to Downtown, a University Branch from Downtown to UH-Manoa, and a Downtown to Waikiki Branch via Kakaako Mauka.

Since the update to the highway element of the OMPO regional transportation plan was still under study at that time, only short-term highway projects included in OMPO's Transportation Improvement Program were reflected in the MIS/DEIS.

Following publication of the Primary Corridor Transportation Project, Major Investment Study/Draft Environmental Impact Statement [MIS/DEIS] (August 2000), there was a public review period from August 23, 2000 to November 6, 2000. In addition to the MIS/DEIS public hearing, special public hearings were conducted by the Honolulu City Council Transportation Committee on September 25 and October 5, 19, and 26, and November 14, 2000. On November 29, 2000, the Honolulu City Council selected the BRT Alternative as the Locally Preferred Alternative (LPA).

At the time of adopting the LPA, the City Council asked the DTS to continue public dialogue on the project. Community working groups were formed to provide a forum for open discussion between project sponsors and neighborhood, civic, business, government and other organizations so that environmental and transportation issues and refinements to project proposals could be discussed. The working groups also provided the community with an opportunity to obtain a greater in-depth understanding about BRT and what it means for their community. The working groups were generally organized by geographic area. They included Pearl City/Aiea, Aliamanu/Salt Lake/Foster Village, Kalihi, Downtown/Kakaako, Mid-Town/University, and Waikiki.

Working Group members were responsible for attending meetings, reporting back to their representative organizations, and bringing that feedback to the Working Group meetings. The Pearl City/Aiea, Kalihi, Downtown/Kakaako, and Mid-Town/University Working Groups had several, separate meetings between February and June 2001. Waikiki Working Group meetings were conducted from August 2001 through April 2002 and the Aliamanu/Salt Lake/Foster Village Working Group had one meeting in July 2002.

As a result of the Working Groups and comments received on the MIS/DEIS, the DTS proposed to refine the LPA to include new and modified components, which the City Council endorsed on August 1, 2001. It was decided that a new In-Town BRT branch be added between Iwilei and Waikiki to serve Aloha Tower Marketplace and the Kakaako Makai area; that a small segment of the UH-Manoa Branch should be realigned from Ward Avenue to Pensacola Street between South King Street and Kapiolani Boulevard with a new transit stop along South King Street at Pensacola Street; and to eliminate the proposed H-1 Regional BRT ramps at Kaonohi Street and Radford Drive and replace them with a new H-1 BRT ramp near Aloha Stadium at Luapele Drive. Additionally, it was decided that the Kakaako Mauka Branch and Iwilei-Waikiki Branch would use Alakea and Bishop Streets instead of Richards Street in response to comments received from area residents. Realigning the Kakaako Mauka Branch will also create two new transit stops, one on Alakea Street and one on Bishop Street.

Since the refinements were being proposed after completion and distribution of the MIS/DEIS and because the refinements were anticipated to have environmental impacts that were not disclosed in the MIS/DEIS, a Supplemental Draft Environmental Impact Statement (SDEIS) was prepared. Its content and process followed Section 11-200-26 of the Hawaii Administrative Rules (HAR) and Part 23 Code of Federal Regulations, § 771.130. The results of the SDEIS are reflected in this FEIS.

Part of the SDEIS process is the acceptance of written comments received during the legal public comment period and oral comments received at the public hearing held on April 20, 2002. Responses to the comments received are contained in Chapter 7. Some of the comments led to additional refinements being incorporated into the project. These refinements are reflected in this FEIS and consist of the relocation of a park-and-ride facility from Kunia Road to North-South Road; elimination of the Kapolei Direct BRT/HOV ramp, Kunia Direct BRT ramp, and Middle Street Direct BRT/ Park-and-Ride ramp; and, rerouting of a short section of the Iwilei-Waikiki branch of the In-Town BRT from Channel Street to Forrest Avenue. Rather than using the direct ramps, BRT buses will use the existing ramps in Kapolei and at Middle Street and ramps planned by HDOT at North-South Road. Since these additional refinements were found to result in no increase in adverse environmental impacts or in reduced adverse impacts, while saving costs, they have been incorporated into the Refined Locally Preferred Alternative (LPA) as defined along with the other Alternatives in Section 2.2. Impact analyses of these refinements are presented in Chapter 5.

2.2 DEFINITION OF ALTERNATIVES

This section contains detailed descriptions of the physical features of the three alternatives.

2.2.1 No-Build Alternative

The No-Build Alternative (see Figure 2.2-1) serves as a possible alternative for selection by decision makers as well as the baseline against which to compare the other alternatives. It includes existing transportation facilities and conversion of the present predominately radial route structure to a hub-and-spoke configuration. Also included are highway improvement projects, which have been identified by OMPO in the TOP 2025. Expansion of the bus fleet to maintain current transit service levels, especially in developing areas such as Kapolei, is also part of this alternative. The term "No-Build" is somewhat misleading, because this alternative includes the construction of long-range highway projects and modest expansion of transit service to accommodate future growth.

1) Baseline Transportation Improvement Projects

The No-Build Alternative includes the highway projects identified in OMPO's TOP 2025. This baseline highway network is also part of the TSM and Refined LPA Alternatives. (See Figure 2.2-1A.) The 2025 highway network is included even in the No-Build Alternative so that the impact assessments are focused only on the differences in the transit elements amongst the Alternatives. Included in the baseline highway improvements is the extension of express (HOV) lanes (town bound and outbound) in the median of the H-1 Freeway between Managers Drive and Kapolei. These express lanes were shown in the MIS/DEIS and SDEIS as part of the BRT Alternative. Since these lanes are now part of the OMPO TOP 2025 they are instead shown as a baseline highway project that will be implemented as a separate project from the Refined LPA.

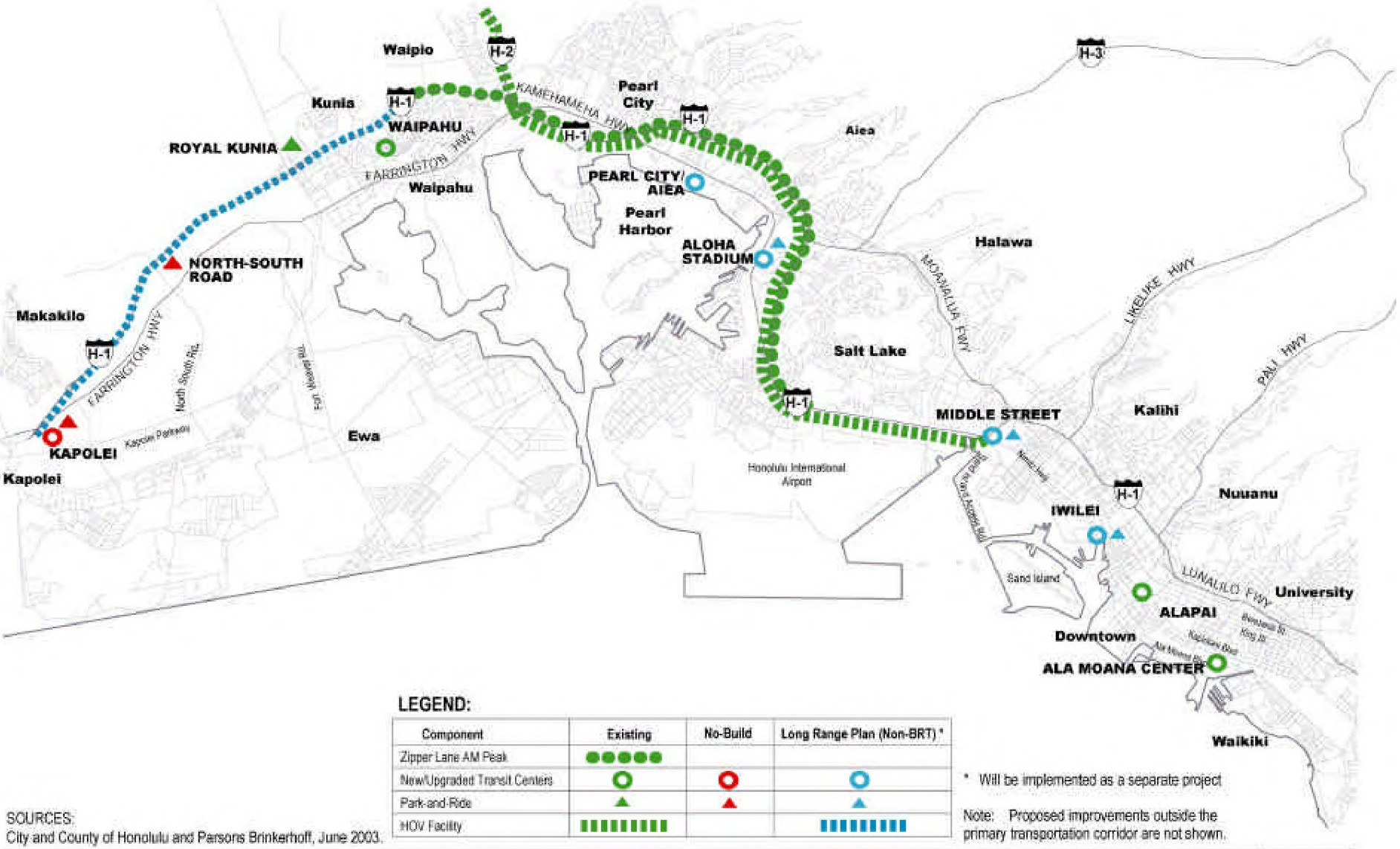
The City and County of Honolulu's Department of Design and Construction also plans to install new concrete bus lanes on portions of Kapiolani Boulevard (Ward Avenue to Kalakaua Avenue), Kamakee Street (Kapiolani Boulevard to Auahi Street), Atkinson Drive (Kapiolani Boulevard to Ala Moana Boulevard), and Kalakaua Avenue (Kapiolani Boulevard to Ala Wai Bridge). This project to rehabilitate these streets will also include installing a new water main and other facilities related to roadways. Construction is scheduled during calendar year 2004.

The No-Build Alternative also includes implementation of the State and City bicycle master plans (shown later in Section 3.2.4) and various programmed pedestrian improvements. The No-Build Alternative and all of the other alternatives capture the intent to create a more bicycle and pedestrian-friendly environment. These pedestrian and bicycle improvements are part of the baseline condition included in all of the alternatives.

2) Transit Network

The No-Build Alternative (Figure 2.2-1) includes reorientation of the present bus route structure from a radial service pattern to a hub-and-spoke network. The reason reconfiguration to a hub-and-spoke network is included for the No-Build Alternative in the FEIS, yet was not included in the MIS/DEIS, is that the City has already started implementation of this reconfiguration. The conversion to a hub-and-spoke network had not been committed to when the MIS/DEIS was prepared. The hub-and-spoke network is also part of the TSM Alternative and the Refined LPA.

The objectives of the hub-and-spoke network are to reduce overall travel times, improve schedule reliability, improve operational efficiency and improve off-peak service. Other benefits of a hub-and-spoke network are expansion of corridor capacity and improved transit network connectivity. While a hub-and-spoke system can increase the number of transfers, this is mitigated by having timed-transfers and lower overall travel times for many trips.



LEGEND:

Component	Existing	No-Build	Long Range Plan (Non-BRT) *
Zipper Lane AM Peak	●●●●●		
New/Upgraded Transit Centers	○	○	○
Park-and-Ride	▲	▲	▲
HOV Facility	▮▮▮▮▮▮▮▮▮		▮▮▮▮▮▮▮▮▮

* Will be implemented as a separate project

Note: Proposed improvements outside the primary transportation corridor are not shown.

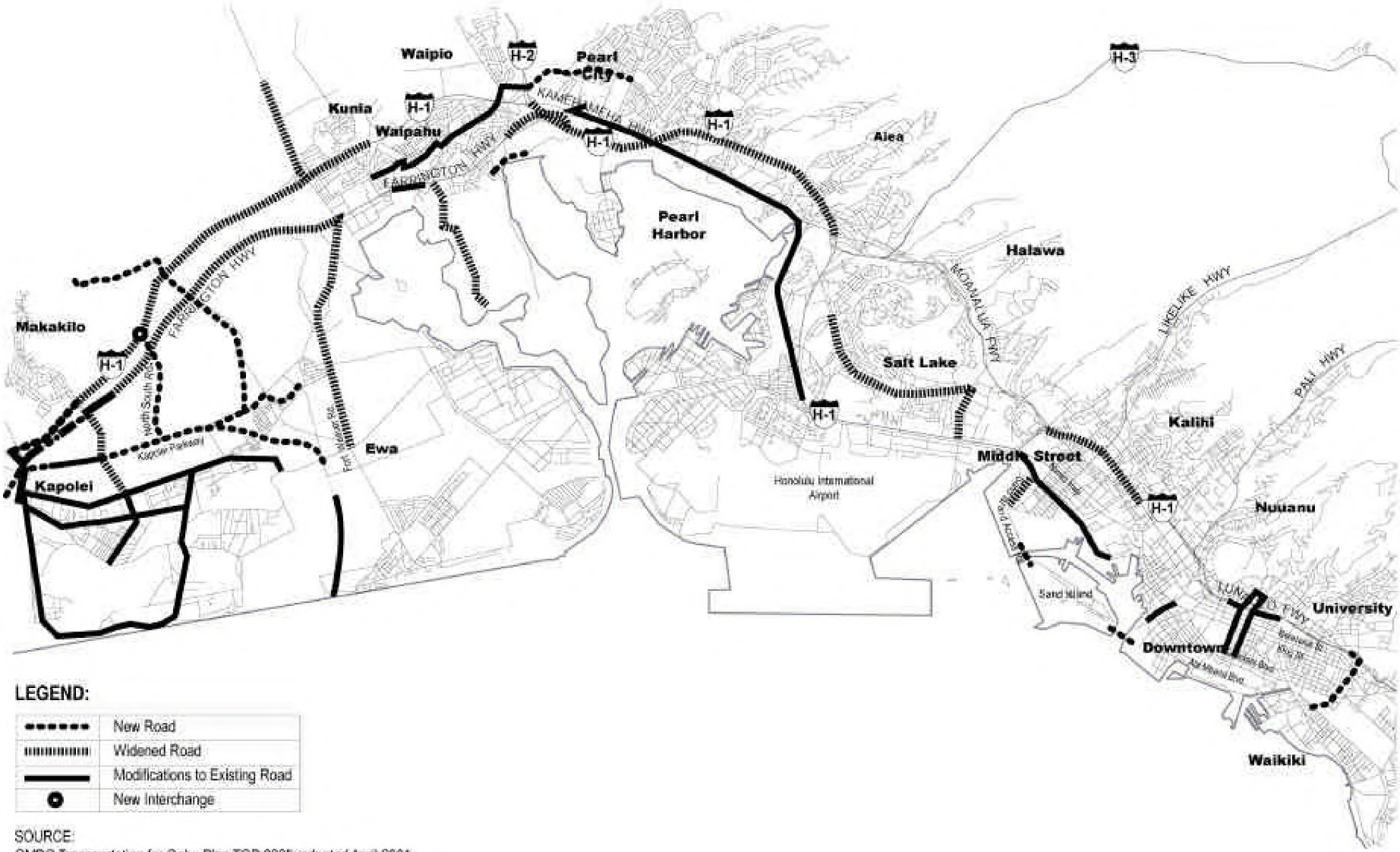
SOURCES:
City and County of Honolulu and Parsons Brinkerhoff, June 2003.

N

Scale: 0 1 2 mi

No-Build Alternative

Figure 2.2-1



LEGEND:

------	New Road
▮▮▮▮▮▮▮▮▮▮	Widened Road
———	Modifications to Existing Road
⊙	New Interchange

SOURCE:
OMPO Transportation for Oahu Plan TOP 2025, adopted April 2001.

N Scale: 0 1 2 mi

Highway Elements For All Alternatives

Figure 2.2-1A

Hub-and-spoke networks provide an integrated system of convenient and accessible circulator, local and express routes, organized around transit centers and transfer points. The bus routes are the "spokes" of the hub-and-spoke system, and the transit centers and transfer points are the "hubs" where people make intermodal and intramodal transfers. There would be a hierarchy of community and regional transit centers, and neighborhood transfer points, each drawing from different size service areas.

The transit centers that have already been committed as part of the hub-and-spoke network and have been include in the Oahu Transportation Improvement Program, FY 2002 – 2004, would remain a part of the No-Build and TSM Alternatives, and the Refined LPA. These transit centers are denoted in the description of alternatives as being implemented by DTS as a separate project.

Frequent express and limited-stop buses would operate between the regional transit centers. Circulator routes provide service between a transit center and a neighborhood or commercial district. The circulator buses would be smaller vehicles providing mobility within neighborhoods, and delivering transit patrons to a transit center or transfer point for connections to line haul routes. Local routes would link multiple transit centers or transfer points and provide service along major streets. Routes in Leeward Oahu have already been reconfigured to a hub-and-spoke configuration and routes in Central Oahu are in the process of conversion.

The size and mix of buses needed in the fleet that are shown in Table 2.2-1 are based on the number of buses needed for operations in the peak period as projected using the travel demand forecasting models. This "peak pull-out" can occur in either the morning or afternoon peak period. The peak pull-out is defined as the sum of the buses required in the peak period on each route. The total fleet size is the peak pull-out demand plus 15 percent spares.

Methodology

The peak pull-out on a route is determined by calculating the bus capacity needed to accommodate the forecasted passenger load at the peak load point on the route. The first step is to calculate the number of bus trips needed in the peak hour to accommodate the passenger load. If the peak load point demand can be handled at the assumed frequency of service with minibuses (assumed capacity of 42 for this analysis), then minibuses are assigned to the service. If standard buses are needed (assumed capacity of 70 for this analysis), then standard buses are assigned; if articulated buses are needed (assumed capacity of 100 for this analysis), then articulated buses are assigned. Since articulated buses cost more to operate than standard buses, articulated buses are assigned to a route only if more than one bus trip is saved in comparison with the number of trips required by standard buses. There are exceptions to this. First, some routes, because of topography, are assigned hill-climber minibuses, and standard buses and articulated buses are not considered. Second, some circulator routes are assigned minibuses automatically. Third, some routes, particularly those traveling on narrow streets, are identified as inappropriate for articulated buses.

If the demand at the peak load point is sufficiently low that even minibuses at the coded frequency of service provide too much capacity, then less frequent service (i.e. a fewer number of bus trips) may be assigned. However the frequency is not lowered below what is considered minimum service for the type of route.

If the demand at the peak load point is too high to be accommodated by an articulated bus at the frequency of service assumed in the travel demand model, then more frequent service (i.e. a larger number of bus trips) is assigned.

Once the number of bus trips and equipment is defined for a route, the number of vehicles that is required is calculated, based on the roundtrip travel time for the route, including layover time.

TABLE 2.2-1
NO-BUILD ALTERNATIVE 2025 FIXED-ROUTE BUS NETWORK

Route Structure	
Circulator Routes	28
Local Routes	25
Express Routes	33
Limited-Stop Routes	3
TOTAL	**89**
Fleet Size (including spares)	
Minibus (30-foot)	108
Standard 40-foot Bus	485
Articulated Bus (60-foot)	32
TOTAL	**625**
Daily Trips (weekday)	
A.M. Peak Period	1,284
Off-Peak Period	1,698
P.M. Peak Period	1,223
Daily Operations (weekday)	
Revenue Bus Miles	62,560
Revenue Bus Hours	4,470
Daily Ridership Forecast (weekday)	
Total Linked Trips	261, 130

Source: Parsons Brinckerhoff, June 2002.

Definitions

Circulator Routes: Circulator bus routes provide mobility within neighborhoods and connections to more regional bus routes. The No-Build Alternative includes the "Hub-and-Spoke" circulators recently implemented in the Waianae Coast, Kapolei-Makakilo, and Waipahu areas. Urban collector routes generally provide service within neighborhoods every 15 to 30 minutes during peak periods and every 30 to 60 minutes during off-peak periods. Suburban feeder routes generally operate every 60 minutes.

Local Routes: The existing urban and suburban trunk routes would continue to provide local service throughout Oahu. Urban trunk lines provide concentrated service through Honolulu, creating combined peak-period headways of less than five minutes along several major streets. Suburban trunk routes provide direct but multi-stop connections between the Primary Urban Center (PUC) and communities in Ewa, Central Oahu, Windward Oahu, and East Honolulu. They operate every 10 to 20 minutes during peak periods and every 20 to 30 minutes during off-peak periods.

Express Routes: Express routes between suburban communities and Honolulu/Kapolei during peak commute periods would continue to supplement local service. Express routes provide direct, non-stop connections between outlying suburban neighborhoods and major activity centers within the PUC and Kapolei. All express bus service is scheduled during or around peak periods.

Limited-Stop: The existing CityExpress! (Route A) would continue to provide limited-stop service every 7.5 minutes between Middle Street and the University of Hawaii (UH), and every 15 minutes between Waipahu and Middle Street. CityExpress! (Route B) would continue to offer limited-stop service between

Middle Street and Waikiki. Route B service frequency would be every 15 minutes, 7 days a week. CountryExpress! (Route C) would also maintain its limited-stop service between Makaha, Kapolei, Downtown Honolulu and Ala Moana Center, using the H-1 Freeway between Kapolei and Kalihi. A trip between Kapolei and Downtown would take approximately 35 minutes. Route C would continue to run every 30 minutes, 7 days a week.

Table 2.2-2 shows the transit centers and park-and-ride facilities incorporated into the No-Build Alternative. A hierarchy of regional and community transit centers and neighborhood transfer points would be established.

TABLE 2.2-2
NO-BUILD ALTERNATIVE TRANSIT CENTERS, TRANSFER POINTS AND PARK-AND-RIDE FACILITIES

Regional Transit Center	Community Transit Center	Neighborhood Transfer Points	Park-and-Ride Facility
Alapai *	*Middle Street* **	Wahiawa Town**	Wahiawa *
Ala Moana Center *	Waipahu *	Mililani Town**	Mililani Mauka *
*Aloha Stadium***	*Kapolei*	Kailua**	Royal Kunia *
	*Iwilei***	Kaimuki**	Hawaii Kai *
	Pearl City/Aiea**	*Waianae*	North-South Road
	*Kaneohe***		

Source: Parsons Brinckerhoff, June 2002.
*Denotes an existing facility
**Will be implemented by DTS as a separate project
Italicized Transit Centers denote that parking would be provided.

Regional transit centers would be large-scale facilities serving multiple trip purposes and would meet the needs of larger geographic areas of the island. These facilities would typically serve a variety of transit services including circulator, express and local bus routes. Typical amenities include numerous off-street bus bays around a waiting area, information kiosks, restrooms, commercial services, and kiss-and-ride areas. While there are no new Regional Transit Centers proposed in the No-Build Alternative, typically Regional Transit Centers when built in outlying locations would also include park-and-ride lots.

Community transit centers would be medium-sized facilities that meet the needs of a number of nearby neighborhoods. These facilities would primarily serve passengers transferring between different community circulators and one or more local and express services. A community transit center would typically be located off-street and proximate to larger-scale commercial activities such as shopping centers. Features typically include multiple bus bays around a sheltered structure, seating, route signage and information, and vending and other small-scale commercial services.

Neighborhood transfer points would be small facilities designed to meet the transit needs of nearby residents. They would primarily serve passengers transferring between neighborhood circulator routes and one or more local or express routes. Ideally a neighborhood transfer point would be located near other neighborhood services such as grocery stores, dry cleaners, and other convenience functions. These transfer points could be on-street with bus turnouts or off-street around an island platform. Key features would include bus turnout lanes, shelter for waiting transit patrons, lighting, sidewalks and bicycle racks.

3) Transit Technology

The No-Build Alternative assumes the continued use and expansion of the existing bus fleet, which presently consists mostly of 40-foot standard diesel buses and 60-foot articulated diesel buses. The technologies in the No-Build Alternative are minibuses, and standard and articulated buses with conventional diesel propulsion.

While minibuses could use alternative fuel sources, including electric batteries or propane, standard and articulated buses, particularly the ones on long-haul routes, would need to be diesel or hybrid diesel/electric because of the mountainous terrain and limited range of battery-powered vehicles. Hybrid diesel/electric buses are electrically propelled vehicles in which the electricity is produced by an on-board generator (alternator) powered by a diesel engine.

4) Park-And-Ride Lots

Intermodal access to the transit network would continue to be provided at four existing park-and-ride lots (Wahiawa Armory, Mililani Mauka, Royal Kunia, and Hawaii Kai). Parking would also be provided at some of the transit centers that DTS would implement as separate projects associated with the hub-and-spoke network. These include the Aloha Stadium, Iwilei, and Middle Street Transit Centers. A new park-and-ride lot would also be provided along North-South Road and at the Kapolei Transit Center.

5) Maintenance Facilities

The 2025 bus fleet would be accommodated at the Kalihi-Palama and Pearl City Bus Maintenance Facilities. To meet forecasted transit demand, the mix of equipment would change to the distribution shown in Table 2.2-1.

6) Vanpool

Vanpool Hawaii is an existing program that subsidizes the use of 7-passenger (and higher capacity) vans as a traffic alleviation measure. In 2001, the program supported 164 vehicles. Continued growth in the number of vans on Oahu is expected. For a $50 fee per passenger per month, vanpool participants receive the use of a vanpool van. Participating drivers are expected to recruit at the start-up of the vanpool group until it sustains a full ridership level within a few months after start-up. The program pays for all of the operational and maintenance expenses, including insurance (but not fuel and parking). The driver can use the van as a personal vehicle after commuting hours and on weekends. The program is currently funded with Federal Highway Administration (FHWA) and State of Hawaii matching funds. Passenger revenues are returned to the state to offset its costs. In 2001, the vanpool program cost $1.7 million and realized $642,000 in revenues.

The Hawaii Department of Transportation (HDOT) currently administers the vanpool program through a contract with a private operator. HDOT considers the vanpool program to be a demonstration program and is not interested in running the program permanently. Since the City could administer the vanpool program, management of the Oahu component of the vanpool program by the City is included as part of the No-Build and other alternatives. Since the combination of federal grants and participant revenues could potentially fully fund the vanpool program, the transfer of vanpool administration to the City is assumed not to impose any financial obligation on the City.

7) Mitigation Measures Requiring Permanent Construction

Mitigation measures would be implemented for the baseline highway projects. Because the detailed impacts have not yet been identified, many of these mitigation measures have not yet been developed. Since the baseline highway projects and their associated mitigation measures are included in all of the alternatives, the mitigation measures for these projects would be constant in all alternatives, and would not help differentiate among them.

2.2.2 Transportation System Management (TSM) Alternative

TSM strategies are low to moderate cost improvements designed to increase the efficiency of the existing transportation infrastructure. TSM measures typically include elements such as traffic engineering and

signalization, transit operational changes and modest capital improvements. Besides being a potential alternative for selection by decision makers, the TSM Alternative serves as a benchmark against which more extensive build alternatives can be evaluated for their cost-effectiveness.

The TSM Alternative is an intermodal alternative (see Figure 2.2-2). It includes reorientation of the present bus route structure from a predominantly radial service pattern to a hub-and-spoke network, extension of the H-1 A.M. zipper lane, bus priority treatments on selected arterials, and a significantly expanded fleet over the No-Build Alternative to provide more convenient service. The objectives of the hub-and-spoke bus network are to reduce overall travel times, improve schedule reliability, improve operational efficiency and improve off-peak service.

The transit centers and transfer points that serve as hubs and are included in the No-Build Alternative are also included in the TSM Alternative. There would also be an additional transit center in Waianae. Additionally, the Middle Street and Kapolei transit centers would be larger.

Parking lots and garages at certain transit centers and stand-alone park-and-ride facilities would provide intermodal access to the hub-and-spoke network. Supplementing the existing park-and-ride lots (Wahiawa, Mililani Mauka, Royal Kunia, and Hawaii Kai) would be new parking facilities that are part of the new transit centers implemented as separate projects associated with the hub-and-spoke network. These include theWaianae, Kapolei, Aloha Stadium, Middle Street, Iwilei, and Kaneohe Transit Centers. In addition there would be a new park-and-ride lot near the proposed H-1 Interchange at North-South Road. Each facility would accommodate 100 to 750 parking spaces. Table 2.2-3 shows the transit centers, transfer points and park-and-ride facilities incorporated into the TSM Alternative.

1) Baseline Transportation Improvement Projects

The TSM Alternative assumes the same baseline highway projects included in the No-Build Alternative, in other words the highway improvements in OMPO's TOP 2025 (see Figure 2.2-1A).

The TSM Alternative also assumes implementation of the State and City bicycle master plans and various programmed pedestrian improvements. This Alternative captures the intent to create a more bicycle and pedestrian-friendly environment.

TABLE 2.2-3
TSM ALTERNATIVE TRANSIT CENTERS, TRANSFER POINTS, AND PARK-AND-RIDE FACILITIES

Regional Transit Center	Community Transit Center	Neighborhood Transfer Points	Park-and-Ride Facility
Alapai *	*Waianae***	Wahiawa Town**	Wahiawa *
Ala Moana Center *	Waipahu *	Mililani Town**	Mililani Mauka *
Kapolei	*Iwilei***	Kailua**	North-South Road
*Aloha Stadium***	*Kaneohe***	Kaimuki**	Royal Kunia *
Middle Street **	Pearl City/Aiea**		Hawaii Kai *

Source: Parsons Brinckerhoff, June 2002.
*Denotes an existing facility
**Will be implemented by DTS as a separate project from the TSM Alternative.
- *Italicized Transit Centers denote that parking would be provided.*

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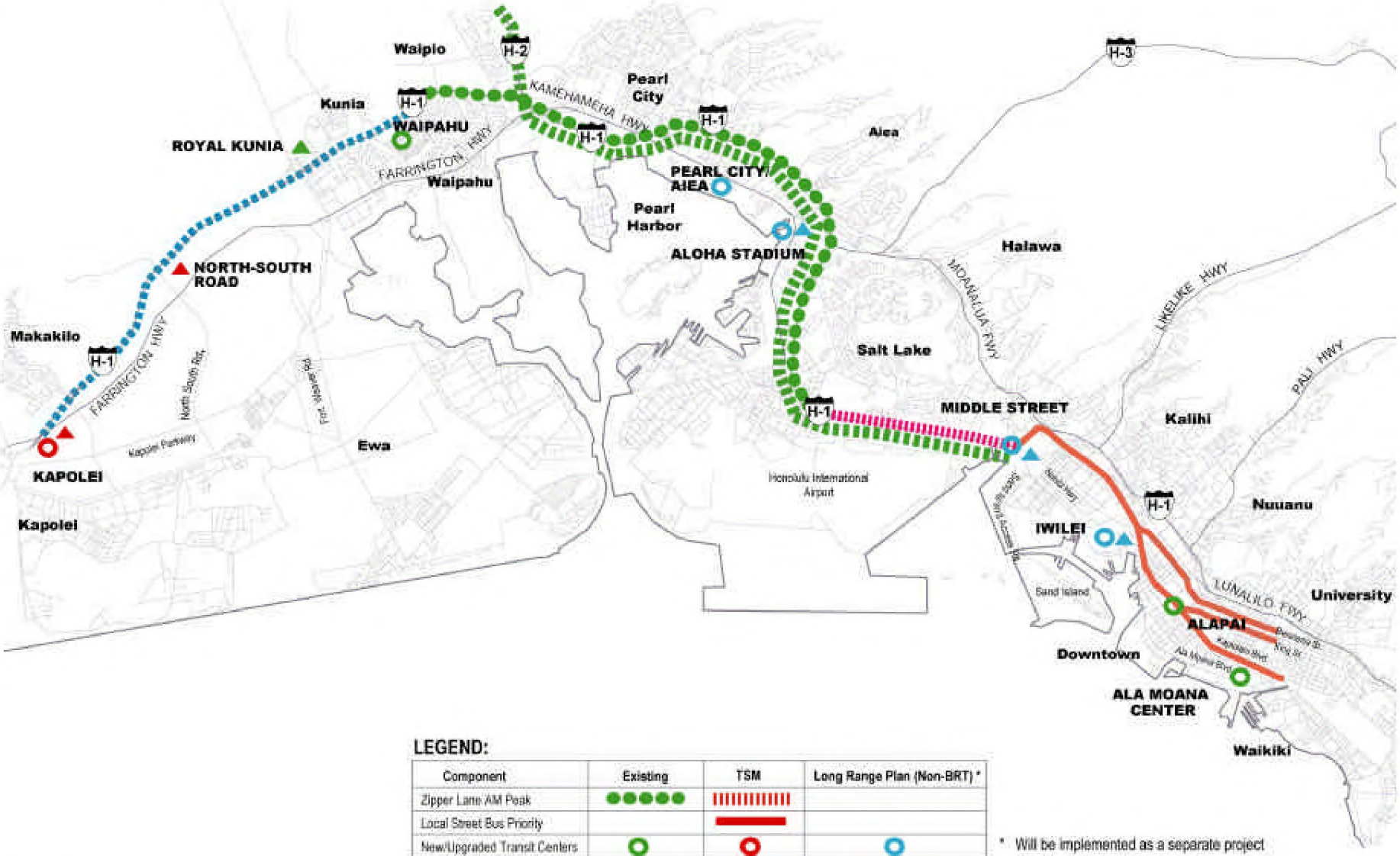

LEGEND:

Component	Existing	TSM	Long Range Plan (Non-BRT) *
Zipper Lane AM Peak	●●●●●	▮▮▮▮▮▮▮▮▮▮	
Local Street Bus Priority		▬▬▬	
New/Upgraded Transit Centers	○	○	○
Park-and-Ride	▲	▲	▲
HOV Facility	▮▮▮▮▮▮▮▮		▮▮▮▮▮▮▮▮

* Will be implemented as a separate project

Note: Proposed improvements outside the primary transportation corridor are not shown.

SOURCES:
City and County of Honolulu and Parsons Brinckerhoff, June 2003.

Scale: 0 1 2 mi

TSM Alternative

Figure 2.2-2

2) Transit Network

Table 2.2-4 summarizes the 2025 Transit Network for the TSM Alternative. Under the TSM Alternative, the existing radial bus route structure would be converted to a hub-and-spoke system. The present long suburban trunk routes to Downtown would be converted to shorter circulator and local routes serving regional transit centers. Connections between local, express, and limited-stop services would be made at the regional transit centers. The community and neighborhood transit centers would also enhance access to the transit network by providing a convenient location for timed-transfers to longer distance routes.

TABLE 2.2-4
TSM ALTERNATIVE 2025 FIXED-ROUTE BUS NETWORK

Route Structure	
Circulator Routes	28
Local Routes	25
Express Routes	36
Limited-Stop Routes	3
TOTAL	**92**
Fleet Size (including spares)	
Minibus (30-foot)	129
Standard 40-foot Bus	518
Articulated Bus (60-foot)	53
TOTAL	**700**
Daily Trips (weekday)	
A.M. Peak Period	1,440
Off-Peak Period	1,952
P.M. Peak Period	1,388
Daily Operations (weekday)	
Revenue Bus Miles	77,790
Revenue Bus Hours	5,220
Daily Ridership Forecast (weekday)	
Total Linked Trips	270,060

Source: Parsons Brinckerhoff, June 2002.

Circulators

The TSM Alternative includes 28 circulator routes, including the 18 existing urban collector and suburban feeder routes. Recently implemented "Hub-and-Spoke" circulator routes within the Waianae Coast, Kapolei, and Waipahu areas are also included. Two existing urban and suburban trunk routes in Pearl City and Salt Lake would become circulators to feed improved limited-stop and express services. Circulators in commercial areas would generally offer service every 15 to 30 minutes, but neighborhood circulators could have up to one hour headways. Circulators would be scheduled to facilitate transfers with limited-stop and express services running between transit centers.

Local Routes

The 25 local routes in the TSM Alternative would be developed primarily from existing urban and suburban trunk routes. To access improved express and limited-stop services between transit centers, most of the existing suburban routes from Ewa and Central Oahu would terminate at the Waipahu, Aloha Stadium, or

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Middle Street Transit Centers where patrons would transfer to express services into Downtown. Routes from Windward Oahu would end at Ala Moana Center. In general, local routes would provide peak-period service every 5 to 15 minutes, and off-peak service every 15 to 30 minutes.

Express Routes

The TSM Alternative includes 36 express routes that would provide direct service between suburban communities and major destinations in Kapolei and the PUC, primarily during peak periods. Targeted to long distance commuters, most express routes would operate only in the direction of peak commuter movements, although some would operate inbound and outbound during the same peak period. The Alapai Transit Center would remain the primary hub for peak-period express routes between suburban communities and Downtown Honolulu, and most of these services would operate every 10 to 30 minutes during the peak period. Lower-demand routes would operate two to four trips per day.

Consistent with the vision of Kapolei as a major employment center by 2025, new express services would operate every 20 to 40 minutes throughout the day to and from Kapolei.

Limited-Stop Services

The existing CityExpress! (Route A) from Waipahu to UH-Manoa via Pearlridge would continue to provide fast, frequent cross-town service through Downtown Honolulu. Service to UH-Manoa would be provided every 15 minutes from Waipahu and every 7.5 minutes from Middle Street. Route A would be supplemented by other limited-stop service through the entire PUC, including City Express! (Route B) and CountryExpress! (Route C). City Express! (Route B) would continue to offer limited stop service between Middle Street and Waikiki. Route B service frequency would be every 15 minutes, 7 days a week. CountryExpress! (Route C) provides fast service from Makaha to Downtown Honolulu and Ala Moana Center. Route C would operate every 30 minutes, every day. A trip between Kapolei and Downtown would take approximately 35 minutes.

3) Transit Technology

Similar to the No-Build Alternative, the transit technologies provided in the TSM Alternative are minibuses and 40-foot standard and 60-foot articulated buses. While minibuses could use alternative fuel sources, including electric batteries or propane, standard and articulated buses, particularly the ones used on long-haul routes, would need to be diesel or hybrid diesel/electric because of the mountainous terrain and limited range of battery-powered vehicles.

4) Bus Priority/Express Improvements

To give priority to buses and other transit vehicles, special lane and traffic signal improvements would be provided on H-1 and key segments of congested arterial streets. In the TSM Alternative there would be approximately 47 miles of bus priority lanes in the PUC and Ewa to provide faster and more reliable bus operations.

The proposed bus priority measures include the following:

- The existing zipper lane provides a morning peak period inbound contraflow lane for multiple occupant vehicles with three or more occupants from 5 to 7 a.m., and with two or more occupants from 7 to 8 a.m. between Managers Drive in Waipahu and the Pearl Harbor Interchange. With the TSM Alternative, the existing zipper lane would be extended an additional 2.8 miles from Radford Drive, onto the H-1 airport viaduct, to Keehi Interchange (Nimitz Highway), creating an 11.6-mile-long morning peak period zipper lane. The extended zipper lane would connect to the A.M. contraflow lane on Nimitz Highway proposed by HDOT.

- Semi-exclusive bus lanes would be placed on King Street and Beretania Street, between Middle Street and Kalakaua Avenue. They would also be implemented on Kapiolani Boulevard between South Street and Atkinson Drive in the peak direction only. (Semi-exclusive bus priority lanes are lanes that would be reserved for buses, although vehicles turning into and out of driveways and turning right at intersections would be permitted to use them.) These bus priority facilities would generally operate only during peak periods.
- Bus priority treatments such as queue jump lanes (a queue jump lane is a short exclusive lane that allows buses to move to the head of a line of traffic) and traffic signal priority would be implemented on Middle Street, King Street, Beretania Street, Kapiolani Boulevard, Ala Moana Boulevard, and Kuhio Avenue.
- In Ewa, bus priority lanes would be incorporated into Kapolei Parkway, North-South Road and a section of Farrington Highway between Fort Barrette Road and Kunia Road.
- A mauka-bound queue jump lane would be provided on Kunia Road between Farrington Highway and the H-1 Freeway.
- Preferential bus treatments, including queue jump lanes and a traffic signal priority system, would be provided on Kamehameha Highway between Waimano Home Road and Moanalua Freeway.
- Fort Weaver Road between Geiger Road and Farrington Highway would be widened to accommodate new express lanes for buses and vehicles carrying two or more persons.

5) Maintenance Facilities

The 2025 bus fleet would be maintained at the Kalihi-Palama and Pearl City Bus Maintenance Facilities. Construction of a third smaller facility would be needed to accommodate the larger fleet. The need for a third bus facility is not anticipated until approximately 2016. Therefore, site selection for the facility will be made at a later date.

6) Mitigation Measures Requiring Permanent Construction

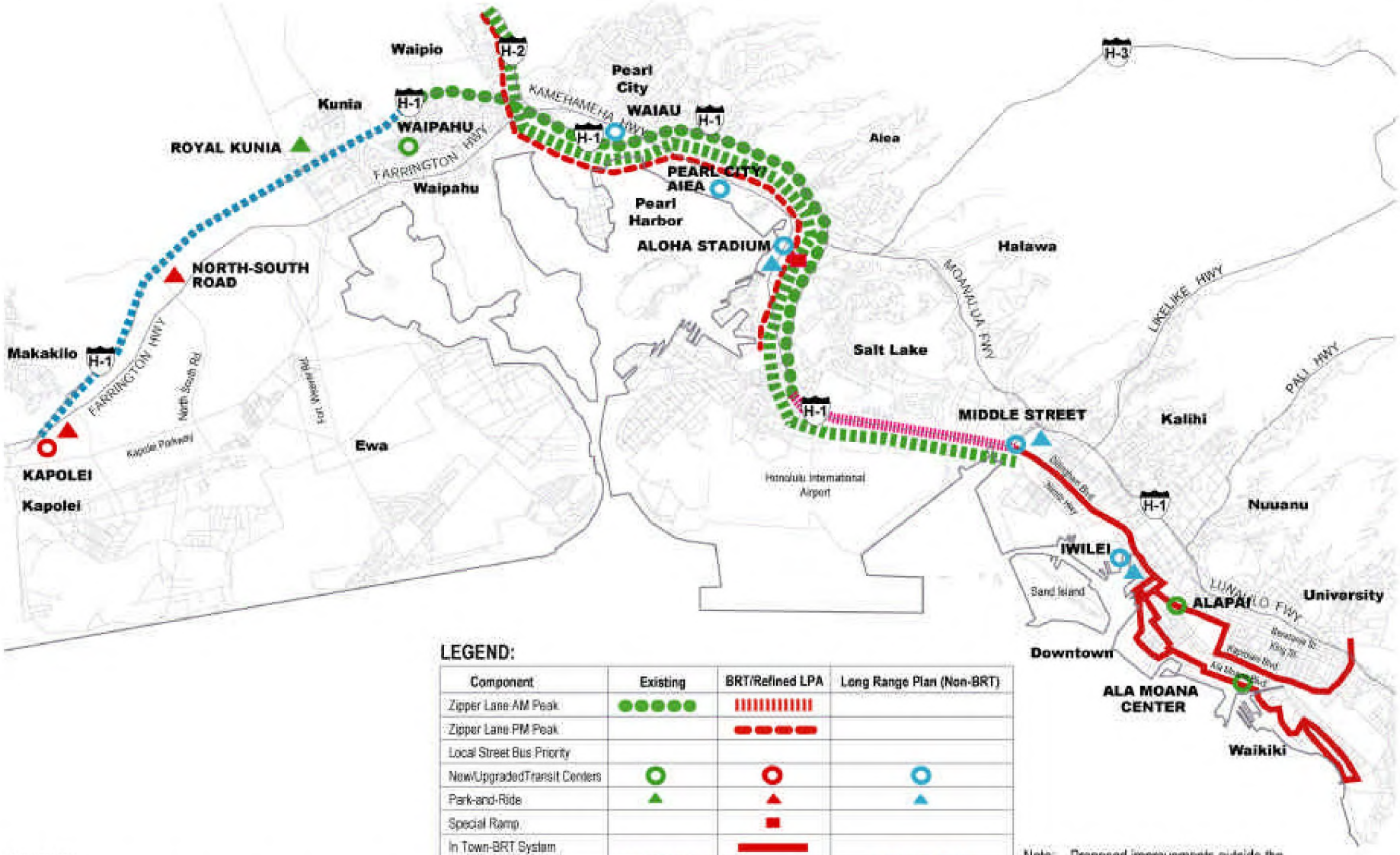
Mitigation measures would be implemented for the baseline highway projects. Because the detailed impacts have not yet been identified, many of these mitigation measures have not yet been developed. Since the committed projects and their associated mitigation measures are included in all of the alternatives, the mitigation measures for these projects would be constant in all alternatives, and would not help differentiate among them.

No mitigation measures that could entail permanent construction are anticipated.

2.2.3 Refined Locally Preferred Alternative (LPA)

The Refined LPA is a multi-modal alternative that provides a more balanced transportation system than the present automobile-dominated situation. A hub-and-spoke bus network similar to the TSM Alternative would connect with the Regional and In-Town Bus Rapid Transit (BRT) systems, integrating the hub-and-spoke network with a fast, high-capacity transit system spanning the primary transportation corridor (see Figure 2.2-3). The In-Town BRT system will provide high capacity, frequent, in-town transit service spanning Honolulu's Urban Core (Middle Street, through Downtown Honolulu, to UH-Manoa and Waikiki). The Regional BRT system will incorporate regional transit routes that utilize bus priority facilities (express lanes) on the H-1 Freeway, creating an H-1 Freeway BRT Corridor, with priority treatment for regional transit vehicles at selected ramps and arterials to facilitate movement between the H-1 Freeway BRT Corridor and the corridor's transit centers. The Refined LPA incorporates a very aggressive level of transit service to attract commuters and mid-day riders.

The Regional BRT system will complement and augment the In-Town BRT system. At the Middle Street Transit Center, most of the regional local buses will terminate, while most of the regional express routes will



LEGEND:

Component	Existing	BRT/Refined LPA	Long Range Plan (Non-BRT)
Zipper Lane AM Peak	●●●●●	▮▮▮▮▮▮▮▮	
Zipper Lane PM Peak		▬▬▬▬	
Local Street Bus Priority			
New/Upgraded Transit Centers	○	○	○
Park-and-Ride	▲	▲	▲
Special Ramp		■	
In Town-BRT System		▬	
HOV Facility	▮▮▮▮▮▮▮▮		▮▮▮▮▮▮▮▮

SOURCES:
City and County of Honolulu and Parsons Brinckerhoff, June 2003.

Note: Proposed improvements outside the primary transportation corridor are not shown.

N

Scale: 0 1 2.0 mi

Refined Locally Preferred Alternative (LPA)

Figure 2.2-3

AR00014941

continue into town using the In-Town BRT priority lanes. The Regional BRT vehicles that continue into town will continue along the UH-Manoa and Kakaako Mauka branches and operate as In-Town BRT vehicles to the termini of these routes. With this approach, many passengers will not have to transfer at Middle Street. Through integrated planning and use of timed-transfers at outlying transit centers, route duplication will be reduced, system capacity will be increased and schedule reliability will be improved. These operational attributes are key ingredients of effectiveness. Together, the Regional and In-Town BRT systems will provide an integrated transit system enhancing mobility within the primary transportation corridor, and between the primary transportation corridor and other parts of the island.

1) Committed Transportation Improvement Projects

The Refined LPA assumes the same baseline highway projects included in the No-Build Alternative (see Figure 2.2-1A).

The Refined LPA Alternative also assumes implementation of the State and City bicycle master plans and various programmed pedestrian improvements. This Alternative also captures the intent to create a more bicycle and pedestrian-friendly environment.

2) Transit Network

The Refined LPA includes the baseline reorientation of the present bus route structure from a radial service pattern to a hub-and-spoke network. Hub-and-spoke networks provide an integrated system of convenient and accessible circulator, local and express routes, organized around transit centers and transfer points. The bus routes are the "spokes" of the hub-and-spoke system, and the transit centers and transfer points are the "hubs" where people make intermodal and intramodal transfers.

There will be a hierarchy of community and regional transit centers, and neighborhood transfer points, each drawing from different size service areas. The transit centers that have already been committed as part of the hub-and-spoke network and have been included in the Oahu Transportation Improvement Program, FY 2002 – 2004, are assumed to be in place to support the Refined LPA. The projects denoted as being implemented by DTS as a separate project from the Refined LPA include these transit centers.

Integration of the Regional and In-Town BRT systems will occur through an islandwide network of transit centers. Four regional transit centers (Kapolei, Aloha Stadium, Middle Street, and Alapai) will provide high-capacity transfer points for patrons to access the Regional and In-Town BRT systems. The Waianae, Waipahu, Pearl City/Aiea, Waiau, and Kaneohe community transit centers will enhance connections to local and express buses into Downtown, while community transit centers on the In-Town BRT alignment (Iwilei and Ala Moana Center) will provide mauka-makai connections with the In-Town BRT system. Enhanced local circulation and access to the BRT system will be provided at four neighborhood transfer points (Wahiawa Town, Mililani Town, Kailua, and Kaimuki). Table 2.2-5 shows the transit centers and transfer points incorporated into the Refined LPA, and which ones will be implemented by DTS as separate projects associated with the hub-and-spoke network. These separate projects will be built independent of a decision to proceed with the Refined LPA. Also shown in Table 2.2-5 are five park-and-ride facilities that will be part of this alternative. Each park-and-ride facility will accommodate 100 to 1,000 parking spaces.

With the Refined LPA many of the transit centers and park-and-rides will be larger and/or take on a different role because of the higher level of service than with the TSM Alternative.

As part of the reconfiguration to a hub-and-spoke system, local bus routes through the Urban Core will be modified to minimize duplication of service with the In-Town BRT. A summary of the 2025 Transit Network for the Refined LPA is provided in Table 2.2-6.

TABLE 2.2-5
REFINED LPA TRANSIT CENTERS, TRANSFER POINTS AND PARK-AND-RIDE FACILITIES

Regional Transit Center	Community Transit Center	Neighborhood Transfer Points	Park-and-Ride Facility
Alapai *	*Waianae***	Wahiawa Town**	Wahiawa *
Kapolei	Waipahu *	Mililani Town**	Mililani Mauka *
Aloha Stadium **	Pearl City/Aiea**	Kailua**	North-South Road
Middle Street **	Waiau **	Kaimuki**	Royal Kunia *
	Iwilei **		Hawaii Kai *
	Ala Moana Center *		
	*Kaneohe***		

Source: Parsons Brinckerhoff, June 2002.
* Denotes an existing facility* * Will be implemented by DTS as a separate project from the Refined LPA
Italicized Transit Centers denote that parking would be provided.

TABLE 2.2-6
REFINED LPA 2025 FIXED-ROUTE BUS NETWORK

Route Structure	
Circulator Routes	30
Local Routes	20
Express Routes	30
Limited-Stop Routes	2
TOTAL	**82**
Fleet Size (including spares)	
Minibus (30-foot)	200
Standard 40-foot Bus	412
Articulated Bus (60-foot)	152
In-Town BRT Vehicles	30
TOTAL	**794**
Daily Trips (weekday)	
A.M. Peak Period	2,325
Off-Peak Period	2,942
P.M. Peak Period	2,145
Daily Operations (weekday)	
Revenue Bus Miles	84,440
Revenue Bus Hours	5,300
Daily Ridership Forecast (weekday)	
Total Linked Trips	312,570

Source: Parsons Brinckerhoff, June 2002.

Circulator Routes: Circulator bus routes will provide access from transit centers into neighborhoods and commercial districts and include existing urban collector and suburban feeder routes. Recently implemented "Hub-and-Spoke" circulator routes within the Waianae Coast, Kapolei, and Waipahu areas are also included. Certain local routes will be converted into circulators to feed the In-Town BRT. Circulator routes in rural and suburban areas will connect to express and local services, as they do today. In-town circulators will generally operate every 15 to 30 minutes, but some neighborhood circulators will have up to one-hour headways.

Local Routes: The Refined LPA includes local bus routes that will connect suburban communities with the In-Town BRT. Connections to the In-Town BRT will occur at the Middle Street Transit Center for the majority of bus service from Leeward and Central Oahu and at the Union Mall Transit Stop for bus service from Windward Oahu. Most local buses that currently enter Waikiki from its Koko Head side will terminate at Kapahulu Avenue near the Honolulu Zoo. Most local buses that currently enter Waikiki from its Ewa side will terminate at Saratoga Road. The In-Town BRT and the existing Routes B, 2, and 13 will service passengers from the terminating routes, thereby reducing the number of transit buses passing through Waikiki. Systemwide, peak-period local service will generally be provided every 5 to 15 minutes, with off-peak service every 15 to 30 minutes.

Express Routes: Express buses provide rapid point-to-point service, typically between suburban and downtown areas. Express buses can perform limited collection and distribution functions in suburban and downtown areas, but travel directly between these areas in the line-haul portion of the trip.

During peak periods, express routes will supplement local services from suburban communities to Downtown and Kapolei. Express service from Ewa and Central Oahu will use the H-1 Freeway BRT Corridor. Some of the express routes will continue into town along the In-Town BRT alignment (these are discussed under Regional BRT Routes), and others will continue via other routings (H-1 or Nimitz Highway). The express buses that use H-1 or Nimitz Highway will connect to the In-Town BRT in Downtown. Express routes from Windward Oahu and East Honolulu will continue to serve the Alapai Transit Center and UH-Manoa Transit Stop. Most express services will operate every 10 to 30 minutes during peak periods, although some express routes serving rural areas will operate less frequently (50- to 75-minute headways during peak periods).

Consistent with the vision of Kapolei as a major employment center, new express service will be provided between Kapolei and Pearl Harbor, Waikiki, Mililani and Wahiawa. This restructured network will replace five existing express routes to Aloha Stadium, Pearl City, Waipahu, and Kalihi.

Limited-Stop Services

The existing CityExpress! (Route A) from Waipahu to UH-Manoa via Pearlridge will continue to provide fast, frequent cross-town service through Downtown Honolulu. Service to UH-Manoa will be provided every 15 minutes from Waipahu and every 7.5 minutes from Middle Street. One change to Route A will be the use of King Street/Beretania Street instead of Kapiolani Boulevard between Downtown and U.H.-Manoa to avoid duplicating service provided by the In-Town BRT. City Express! (Route B) will continue to offer limited-stop service between Middle Street and Waikiki. Route B service frequency will be every 15 minutes, 7 days a week. The existing CountryExpress! (Route C) that provides fast service from Makaha to Downtown Honolulu and Ala Moana Center will become part of the Regional BRT, providing essentially the same service as it does today but having the benefit of becoming part of the BRT system within the Urban Core of Honolulu.

3) Regional BRT System

The Refined LPA will create an H-1 BRT Corridor consisting of existing and new express and zipper lanes, allowing Regional BRT and express buses from Ewa and Central Oahu to bypass peak period traffic congestion on their way to Downtown in the morning and returning from Downtown in the evening. Priority treatments at ramps will be provided for BRT vehicles to easily move between selected transit centers and the H-1 BRT Corridor. Other multiple occupancy vehicles will also benefit by being able to use the proposed improvements to the H-1 Corridor.

Regional BRT Routes

Several regional transit routes will serve as the Regional BRT. These routes will provide access to the Urban Core of Honolulu using freeway and arterial priority express lane treatments such as the zipper lane and contra-flow lanes. Once they reach the Middle Street Transit Center, these regional BRT routes will join and augment the In-Town BRT vehicles, essentially becoming part of the In-Town BRT system. They will operate

along the In-Town BRT alignment in the priority lanes. Four regional routes are proposed: Makaha regional, Wahiawa regional, Ewa Beach/Waipahu regional, and Pearl City regional. The Makaha regional will be very similar to the existing CountryExpress! (Route C) but will have the advantage of utilizing the In-Town BRT priority lanes. The Wahiawa regional will provide regional service from Wahiawa and Mililani and continue as part of the UH-Manoa In-Town BRT branch. The Ewa Beach/Waipahu regional will provide Regional BRT service from Ewa Beach and Waipahu, continuing through town via the Kakaako Mauka alignment. The Pearl City regional will originate in the Waimano Home Road area of Pearl City and provide access into town via the Luapele Ramp at Aloha Stadium.

H-1 BRT Corridor

There are three physical improvement elements to the H-1 BRT Corridor: H-1 zipper lane extension, new afternoon zipper lane, and on/off ramp improvements to access the zipper lanes. These elements will create an H-1 BRT Corridor, a continuous, fast corridor between Kapolei and Middle Street for BRT vehicles. The elements of the H-1 BRT Corridor are:

1. The existing zipper lane provides a morning peak period inbound contraflow lane for multiple occupant vehicles with three or more occupants from 5 to 7 a.m. and with two or more occupants from 7 to 8 a.m., between Managers Drive in Waipahu and the Pearl Harbor Interchange. Under the Refined LPA, the existing zipper lane will be extended an additional 2.8 miles from Radford Drive, onto the H-1 airport viaduct, to Keehi Interchange (Nimitz Highway), creating an 11.6-mile-long morning peak period zipper lane.
2. An outbound, afternoon peak period contraflow zipper lane will be built for vehicles with multiple occupants. The outbound zipper lane will be created by providing a second movable barrier that will replace the existing fixed median barrier on H-1 in some places. The new afternoon peak period zipper lane on the makai side of the freeway will provide a 6.6-mile Ewa-bound zipper lane between Radford Drive and the Waiawa Interchange.
3. Special ramp improvements proposed as part of the Refined LPA and ramp improvements planned by the HDOT will allow Regional BRT buses to use the zipper lane and for these buses to easily move between the H-1 BRT Corridor and selected transit centers and park-and-rides. These ramp improvements are discussed below:

   Kapolei: New on- and off-ramps between the H-1 BRT Corridor and a proposed overpass at Wakea Street will serve Kapolei, facilitating access to the H-1 BRT Corridor all day long. These ramps are part of HDOT's planned improvements for H-1.

   North-South Road: A new park-and-ride located near the North-South Road/H-1 Interchange will be connected to the H-1 BRT Corridor via the new ramps planned for construction by HDOT.

   Waiawa Interchange: A new zipper lane for vehicles with multiple occupants will be added to the Waiawa Interchange to permit a direct connection between the H-1 p.m. zipper lane and the mauka-bound HOV lane on H-2.

   Luapele Drive: This ramp is the alternative site chosen with the assistance of the Pearl City/Aiea Working Group after the Kaonohi Street and Radford Drive ramp locations were dropped (see Figure 2.2-2). It will be a reversible ramp to-and-from the H-1 Freeway near the intersection of Salt Lake Boulevard and Kahuapaani Street. It will be for the exclusive use of buses.

   The ramp will begin on a section of Luapele Drive and will emerge in the median of H-1 connecting with the a.m. and p.m. zipper lanes. The ramp will require widening the freeway just Koko Head of the Aloha Stadium area viaduct by a minimum of ten feet on both sides. Appendix B includes the Luapele Drive ramp preliminary engineering design drawings. With deletion of the Kaonohi Street ramp, the proposed transit center/park-and-ride at Kamehameha Drive-In was dropped and the Aloha Stadium Transit Center/Park-and-Ride expanded. This ramp will provide a close-by connection to the transit center.

The Pearl City/Aiea Working Group also recommended serving the Pearl City/Aiea communities with a system of circulator buses focused on transit centers at the Pearl City Youth Complex (near Hale Mohalu) (Waiau) and former Jim Slemons auto dealership site (Pearl City/Aiea). These transit centers would be linked to the BRT system via express services operating along Kamehameha Highway using a contraflow lane during peak periods. Express buses would stop at the Waiau, Pearl City/Aiea Transit Centers as well as at the Aloha Stadium Transit Center before entering the H-1 zipper lane via the Luapele Drive ramp. The DTS is programming the Waiau and Pearl City/Aiea Transit Centers and Kamehameha Highway improvements into the City Capital Improvement Program (CIP) as separate projects from the Refined LPA since they have independent utility.

The contraflow zipper lane and reversible ramp at Luapele Drive will operate in the direction of peak traffic flow. Transit service will be provided in the reverse peak direction, but the contraflow lane and reversible ramps will only be used by vehicles traveling in the peak direction.

Preliminary engineering design drawings for those elements that are part of the Refined LPA are contained in Appendix B.

Design Exceptions

Because of right-of-way limitations and roadway constraints in the H-1 corridor where the Regional BRT is proposed, it is not possible to meet all desirable design standards in the American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, 1994. This is sometimes the case with projects that involve modifications to existing facilities and does not preclude these projects from being eligible for federal funding.

AASHTO, in cooperation with the Federal Highway Administration (FHWA), sponsored a research project, which produced design guidelines for high occupancy vehicle and bus rapid transit facilities. The product of this research, National Cooperative Highway Research Program (NCHRP) Report 414, HOV Systems Manual, 1998, includes suggested reduced design standards when desired design standards cannot be met. These reduced design standards have been accepted by FHWA on other projects through design exceptions.

Locations on the Regional BRT alignment where design exceptions may be required are shown in Table 2.2-7. For the most part, these design exceptions will be for reduced lane widths or the use of shoulder lanes for traffic lanes.

Implementing the Regional BRT improvements will require modifications of Interstate Route H-1 at various locations as follows:

Waiawa Interchange:

- Between the existing Interstate Route H-2 zipper lane crossover and the Pearl City viaduct, the median area and the makai side of the freeway would be widened by about 20 feet to provide p.m. zipper lane crossover facilities.
- The Interstate Route H-2 inbound roadway and bridges would be widened on the Koko Head side by about 12 feet to provide a p.m. zipper lane.

TABLE 2.2-7
REGIONAL BRT H-1 FREEWAY IMPROVEMENTS REQUIRING DESIGN EXCEPTIONS

Section	Existing Conditions	Proposed Conditions	AASHTO Minimum Standards	NCHRP "Reduced" Standards
H-2 Terminus to Halawa Interchange (P.M. zipper lane) (5.0 miles)				
Lane width	11'	11'	12'	11'
Median shoulder width	2'	2'	10'	2'
Zipper lane left shoulder width	--	4'	10'	2'
Right-side shoulder width	none w/ shoulder lane		10'	4'
Bridge structural capacity	No increase in load		Load Factor Design	
Halawa Interchange to Radford Drive (P.M. zipper lane) (0.8 miles)				
Zipper lane left shoulder width	--	4'	10'	2'
Zipper lane right-side shoulder width	--	8'	10'	8'
Ramp right-side shoulder width	--	4'	8'	4'
Radford Drive to Keehi Interchange (extended A.M. zipper lane) (5.0 miles)				
Zipper lane left shoulder width	--	6'	10'	2'
Zipper lane right-side shoulder width	--	4'	10'	8'[1]
Lane width	12'	11'	12'	11'

Source: R.M. Towill Corporation, May 2002.
Note: [1] Proposed barrier distance of 22.5 feet, which is greater than NCHRP "Reduced" distance of 22 feet.

Waiawa Interchange to Halawa Interchange:

- Between the Moanalua Road undercrossing and Halawa Interchange, the makai side of the freeway would be widened by about two feet to provide a p.m. zipper lane. Additional widening at various spot locations may also be desirable to provide breakdown refuge areas.

Halawa Interchange to Keehi Interchange:

- Koko Head of the Radford overpass, the median area and the mauka side of the freeway would be widened by approximately four feet to provide a p.m. zipper lane crossover.
- The Luapele Drive ramp would require widening the freeway just Koko Head of the stadium area viaduct by a minimum of 10 feet on both sides.

All of the above widenings will be done within the existing H-1 right-of-way.

Transit Technology for the Regional BRT System

The technology for the Regional BRT vehicles will be standard and articulated buses with conventional diesel or hybrid diesel/electric propulsion.

Transit Centers and Park-and-Rides

Intermodal access (e.g., automobile, pedestrian, bicycle) and intramodal access (e.g., connections between feeder and line haul transit routes) to the Regional and In-Town BRT systems will occur at transit centers and park-and-ride lots (see Table 2.2-5). Most of these will be built as part of the hub-and-spoke conversion rather than the Refined LPA. Transit centers with parking will be Waianae, Kapolei, Aloha Stadium, Middle

Street, Iwilei, and Kaneohe. Transit centers and transfer points without parking will be at Waipahu, Alapai, Ala Moana Center, Pearl City/Aiea, Waiau, Wahiawa Town, Mililani Town, Kailua, and Kaimuki. A new park-and-ride facility will be located at North-South Road. Existing park-and-ride lots are located at Wahiawa, Mililani Mauka, Royal Kunia, and Hawaii Kai.

Maintenance Facilities

Storage and maintenance of the Regional BRT transit fleet (and the regular bus fleet) for the next 10-12 years will occur at the existing Kalihi-Palama and Pearl City bus maintenance facilities. The Kalihi-Palama facility will need to be expanded for storage and servicing of the BRT vehicles. This expansion will be coordinated with development of the Middle Street Transit Center/Park-and-Ride. The proposed expansion site is adjacent to and makai of the existing Kalihi-Palama facility. The modifications to the existing facility to maintain BRT vehicles are part of the Refined LPA, whereas the transit center/park-and-ride functions on the new expansion site are advancing as an independent project.

In addition to the Pearl City and expanded Kalihi-Palama maintenance facilities, a new third bus maintenance facility will be required 10 to 12 years from now to serve a system-wide fleet of 794 buses. With a fleet of this size a third bus maintenance facility would be needed even without the BRT.

Since the third maintenance facility will not be needed for 10 to 12 years, identifying specific location options can be deferred until then.

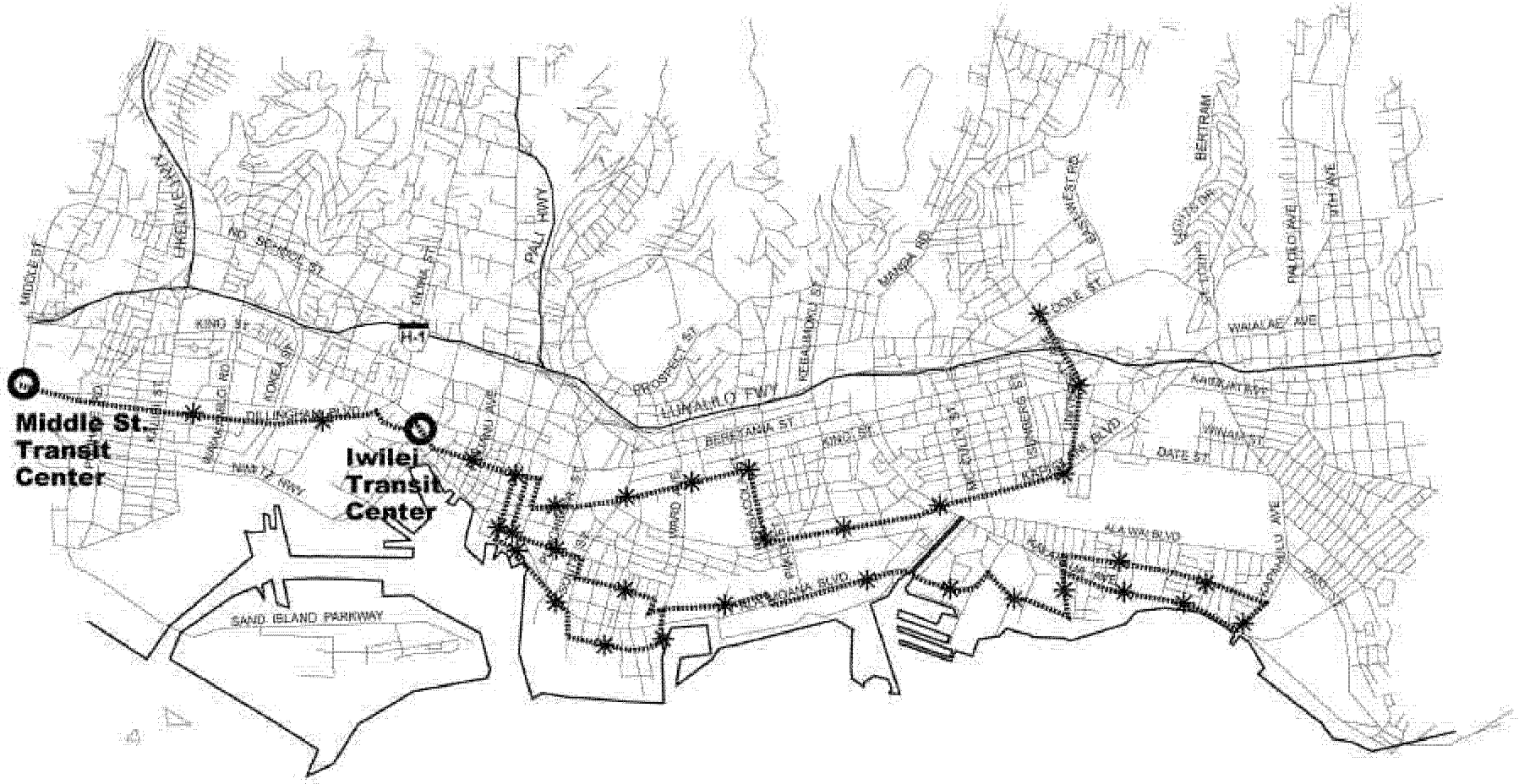
4) In-Town BRT System

The In-Town BRT system will be a 12.8-mile high-capacity transit system providing frequent service and direct access to major activity destinations and residential neighborhoods throughout Honolulu's Urban Core. (See Figure 2.2-3A.) Convenient connections between the In-Town BRT system and circulator, local, and express buses will occur at selected BRT stops. Based on comments received on the MIS/DEIS and SDEIS and concerns from the public, three major project refinements have been made to the In-Town BRT system. These refinements are described and incorporated in the following discussion of the In-Town BRT system. Along a good portion of the system's length, In-Town BRT vehicles will operate at-grade in exclusive transit lanes along major arterial streets. In other locations, the In-Town BRT system will operate either in semi-exclusive curb lanes (i.e., lanes are also used by vehicles making turns) or in mixed traffic.

Starting at the Ewa terminus, the alignment will extend 2.0 miles from the Middle Street Transit Center to the Iwilei Transit Center along Dillingham Boulevard. The 5.7-mile Iwilei-Waikiki Branch alignment will start at the Iwilei Transit Center, and continue through Downtown to Aloha Tower Marketplace, along the waterfront to Kakaako Makai, Ala Moana and Waikiki. From Downtown, the UH-Manoa Branch alignment will run 4.1 miles to UH-Manoa via South King Street, Kapiolani Boulevard and University Avenue. Instead of heading makai on Ward Avenue as was proposed in the MIS/DEIS, the alignment has been modified to continue on South King Street, turn makai on Pensacola Street and then continue along Kapiolani Boulevard to University Avenue. A third branch will connect Downtown Honolulu with the mauka portion of Kakaako and Waikiki. . From Bishop Street and Nimitz Highway to the connection with the Kakaako Makai Branch at Ward Avenue and Auahi Street, the alignment extends approximately 1.0 mile.

An In-Town BRT vehicle will take 7.5 minutes to travel from Middle Street to Downtown Honolulu. From Downtown, it will take 14 minutes to reach UH-Manoa. Travel time from Downtown to Waikiki will be approximately 16 minutes via the Kakaako Mauka Branch and 18 minutes via the Iwilei-Waikiki Branch. In-Town BRT services will operate every two minutes during peak periods from Middle Street to Downtown, and about every four minutes during peak periods on each of the three branch segments.

Along 38 percent of its length, the In-Town BRT system will run in transit lanes in the median of existing arterial roads (e.g., Kapiolani and Dillingham Boulevards) or in exclusive curbside contra-flow lanes (e.g., S.


Middle St. Transit Center
Iwilei Transit Center
MIDDLE ST
KAMEHAMEHA HWY
NO. SCHOOL ST
KING ST
H-1
PALI HWY
DILLINGHAM BLVD
NIMITZ HWY
MOKAUEA ST
KALIHI ST
PROSPECT ST
H-1 FWY
BERETANIA ST
KING ST
PUNCHBOWL ST
ALAKEA ST
RICHARDS ST
BISHOP ST
ALAPAI ST
NIMITZ HWY
DATE ST
KAPIOLANI BLVD
ALA WAI BLVD
KALAKAUA AVE
KAPAHULU AVE
SAND ISLAND PARKWAY
MAUNAKEA ST
PUNCHBOWL ST
KEEAUMOKU ST
PIIKOI ST
KEEAUMOKU ST
MAKIKI ST
PENSACOLA ST
KAPIOLANI BLVD
KEEAUMOKU ST
ALA WAI BLVD
KALAKAUA AVE
KAPAHULU AVE
MAUNAKEA ST
PUNCHBOWL ST
KEEAUMOKU ST
PIIKOI ST
MAKIKI ST
PENSACOLA ST
KAPIOLANI BLVD

King Street). In other locations the system will run along the curb in semi-exclusive lanes (29 percent), or in mixed traffic (33 percent). Semi-exclusive lanes are shared with local buses and right-turning vehicles (as well as private buses in Waikiki). In general, running the In-Town BRT system in the roadway median avoids conflicts with vehicles making right-hand turns and turning into and out of driveways, resulting in faster speeds for the In-Town BRT vehicles.

Transit stops will have different configurations in median-running sections than in curb-running sections. In curb-running areas, the transit stop will resemble current bus stops, yet will have added features including raised waiting platforms for direct boarding of buses, and increased amenities including covered waiting areas, seating and landscaping, where space permits.

Median transit stops will have raised platforms in the median of the street, typically 13 inches higher than the street, eight feet wide and 160 feet long. The platforms will be accessed by well-marked, signal-controlled, safe, pedestrian crosswalks. The platforms will be accessible to persons with disabilities by ramps from the crosswalk to the raised platforms.

Platforms will be provided with covered waiting areas, seating, lighting and safety railings so that transit patrons can wait in safety and comfort for the next In-Town BRT vehicle. Some of the stops will also be provided with signs indicating the waiting time until the next vehicle. Ticketing machines could be provided to minimize the fare transactions conducted on-board the vehicle. Figure 2.2-4 shows typical median and curb transit stops for the In-Town BRT system. The system will be designed for accessibility by disabled riders in compliance with the Americans with Disabilities Act.

Middle Street to Iwilei Segment

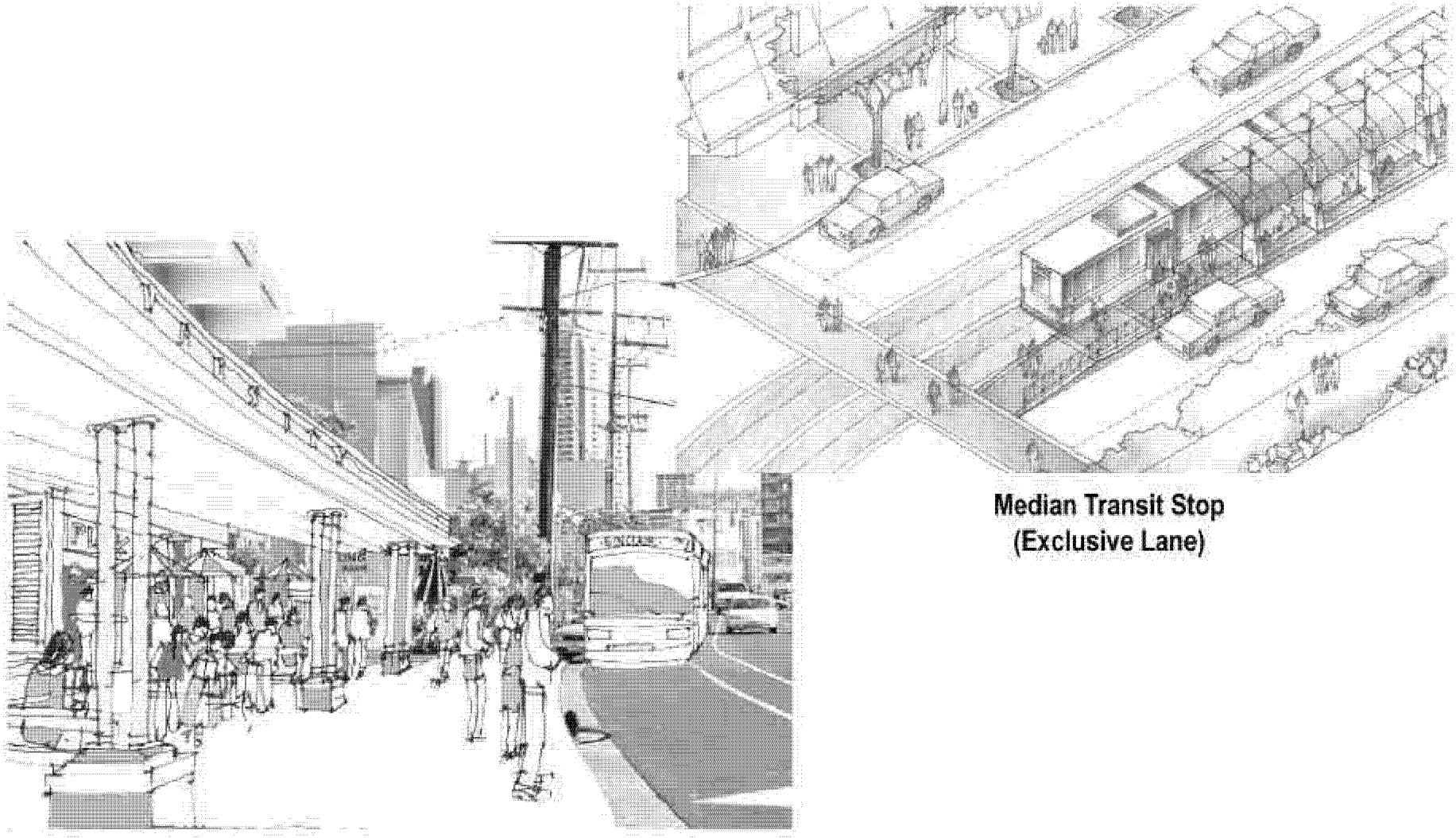
Alignment

The alignment will begin at the Middle Street Transit Center, and proceed along the center median of Dillingham Boulevard through Kalihi. The reconfigured cross section will have a transit lane and a vehicular lane in each direction. Left-turn lanes will still be provided mauka-bound at Laumaka Street, and in both directions at Puuhale Road, Kalihi Street, McNeill Street, Waiakamilo Road, Kohou Street, Kokea Street, and Alakawa Street. At Kaaahi Street, the route will turn makai to reach the proposed Iwilei Transit Center located adjacent to the former Oahu Railway and Land Company (OR&L) Station building.

Proposed Transit Stops

- Middle Street Transit Center: The location of this transit center will be adjacent to and makai of the existing Kalihi-Palama Bus Maintenance Facility.
- Kalihi: This transit stop will be located at Dillingham and McNeill Street (near Dillingham Shopping Plaza).
- Honolulu Community College: This transit stop will be located at Alakawa Street.
- Iwilei Transit Center: This transit center will be located next to the former OR&L Station building.

The cross-section on Dillingham Boulevard was modified from that shown in the MIS/DEIS based on input from the Kalihi Working Group. In response to concerns about potential delays to motorists with only one 14-foot general-purpose lane in each direction, the general-purpose lanes were widened to be 18-foot lanes between Laumaka Street and Waiakamilo Road. Eighteen-foot lanes will permit vehicles to go around a local bus stopped at the curb or a right-turning vehicle without having to encroach into the BRT lane. Additionally, in response to the Working Group, additional U-turns and left turns were incorporated into the plan. To preserve the True Kamani trees along the section of Dillingham Boulevard from Waiakamilo Road to Kaaahi Street, the general-purpose lanes will be 14 feet wide, with turnouts at the local bus stops.



Median Transit Stop
(Exclusive Lane)

Curb Transit Stop
(Semi-Exclusive Lane)

	Typical In-Town BRT Transit Stops	Figure 2.2-4

Iwilei-Waikiki Branch

Based on comments received after completing the MIS/DEIS and input from the Downtown/Kakaako Working Group, it was determined that another In-Town BRT branch is warranted to serve Downtown, Aloha Tower Marketplace, the makai portion of Kakaako south of Ala Moana Boulevard, and Waikiki. Inclusion of the Iwilei-Waikiki Branch in the project is the result of the City Council's confirmation of this need.

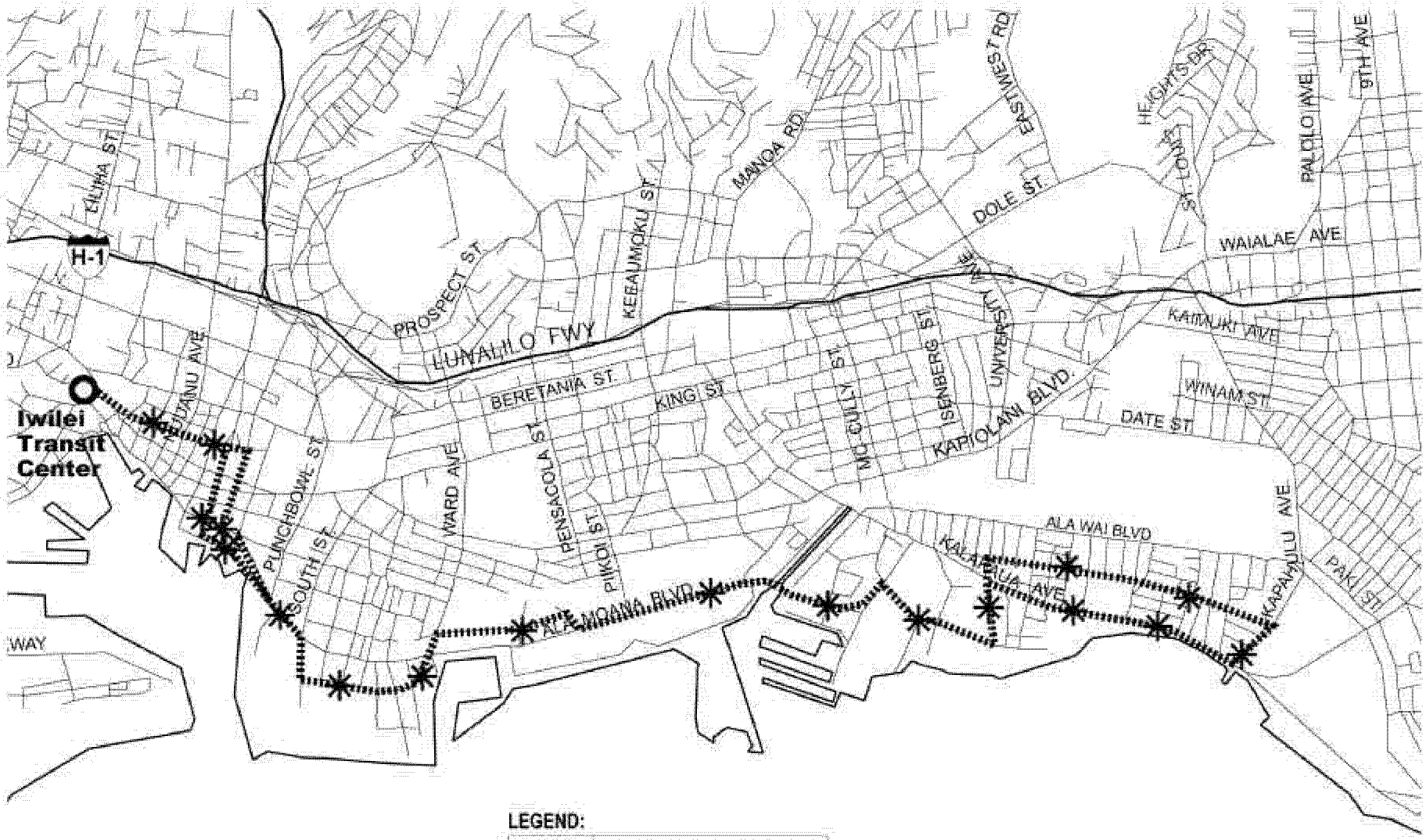
Alignment

The Ewa end of the new branch will be the Iwilei Transit Center and the Koko Head end will be at Kapahulu Avenue in Waikiki. Starting from the Iwilei Transit Center, the new branch will travel mauka onto Iwilei Road, turn Koko Head onto North King Street, and proceed to the Hotel Street Transit Mall. It will continue in the makai direction on Bishop Street to Aloha Tower Drive. From Aloha Tower Drive, the branch will continue in the Koko Head direction on Ala Moana Boulevard and then turn in the makai direction onto Forrest Avenue. It will then turn in the Koko Head direction onto Ilalo Street and then turn in the mauka direction onto Ward Avenue and then Koko Head onto Auahi Street. At the Koko Head end of Auahi Street, the route will turn onto the short Queen Street segment to rejoin Ala Moana Boulevard and head Koko Head towards Waikiki. Along Ala Moana Boulevard, the Koko Head-bound vehicles will operate along the makai curb, while Ewa-bound vehicles will operate in the mauka curb lane between Kalia Road and Hobron Lane and on the mauka side of the center median between Hobron Lane and Queen Street.

From Ala Moana Boulevard, the route will turn makai on Kalia Road and enter Fort DeRussy. The route will continue along Kalia Road to Saratoga Road, with Kalia Road being widened by one lane in each direction between the Hale Koa Hotel and Saratoga Road. The alignment will turn mauka on Saratoga Road. The BRT will be in semi-exclusive lanes on Kalia Road from Maluhia Street to Saratoga Road, and on Saratoga Road from Kalia Road to Kalakaua Avenue. At the intersection of Saratoga Road and Kalakaua Avenue, the route will split into a one-way couplet. The Koko Head-bound transit lane will be in the makai curb lane of Kalakaua Avenue until after the stop at Uluniu Street where it will transition mauka to turn onto Kapahulu Avenue. The Kapahulu terminus will be a transit stop on the Koko Head side of Kapahulu Avenue. The transit stop improvements at this site will be within the 18-foot-wide sidewalk area. The return loop will turn Ewa onto Kuhio Avenue, and the Ewa-bound transit lane will be located along the mauka curb of Kuhio Avenue. The alignment will turn onto the Ewa side of Kalaimoku Street to return to Saratoga Road. Within Waikiki the BRT lanes will for the most part be shared with local buses and private transit vehicles. The exceptions will be the left-turn lane from Kalia Road to Ala Moana Boulevard, and the Kalaimoku contra-flow lane.

In the Ewa direction, the Iwilei-Waikiki Branch will travel Ewa in reverse of the Koko Head direction; except that, at the intersection of Bishop Street/Nimitz Highway, the branch will turn Koko Head onto Nimitz Highway, then mauka onto Alakea Street, Ewa on Hotel and back to the Iwilei Transit Center, where the new branch ends. Figure 2.2-5 shows the proposed Iwilei-Waikiki alignment.

The purpose of the Iwilei-Waikiki Branch is to better serve existing and future land uses in and along the downtown Honolulu and Kakaako waterfront. Existing attractions that will be served by the Kakaako Makai Branch include Chinatown, the Central Business District, Aloha Tower Marketplace, Hawaii Maritime Museum, Piers 10 and 11 cruise ship terminal, Kakaako Waterfront Park, Children's Discovery Center, Victoria Ward commercial/entertainment complex, Ala Moana Beach Park, Ala Moana Center, and Waikiki. Future land uses that would be served include future phases of Aloha Tower Marketplace, a new cruise ship terminal at Pier 2, the proposed University of Hawaii School of Medicine and related bio-medical research facilities, the proposed Hawaii Science and Technology Center, commercial plus retail development at Kewalo Basin, and the Waikikian and Outrigger developments in Waikiki.



LEGEND:

	Proposed In-Town BRT Alignment
✳	Transit Stops
○	Transit Center

SOURCE:
Parsons Brinckerhoff, May 2002.

Scale: 0 .25 .50 mi

Iwilei Waikiki Branch

Figure 2.2-5

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Proposed Transit Stops

The Iwilei-Waikiki Branch of the In-Town BRT will have 17 transit stops, thirteen of which will be shared with the other branches:

- Iwilei Transit Center: This stop will be adjacent to the former OR&L station building.
- Chinatown : This transit stop will be located at Kekaulike Street in Chinatown.
- Union Mall: This transit stop will be located between Fort Street and Union Malls and would serve the Central business District.
- Aloha Tower : This transit stop will be located on Aloha Tower Drive just to the Koko Head side of Bishop Street by the Hawaii Maritime Museum.
- Fort Armstrong: This transit stop will be located on Ala Moana Boulevard near the U.S. Immigration Station/Department of Health Building, Restaurant Row, and the site of a future passenger ship terminal at Pier 2.
- Coral: This transit stop will be located along Ilalo Street between Coral and Cooke Streets in the center of the Kakaako Community Development District Makai Area.
- Kewalo Basin: This transit stop will be located along Ilalo Street Koko Head of Ahui Street and will serve the Kewalo Basin.
- Kamakee: This transit stop will be located on Auahi Street and would provide access to the Victoria Ward developments.
- Ala Moana Park: This transit will would be located next to Ala Moana Beach Park and Ala Moana Center.
- Hobron: This transit stop will be located on Ala Moana Boulevard, serving the Hobron residential area and hotels.
- Fort DeRussy: This transit stop will be located on Kalia Road adjacent to Fort DeRussy and the Hilton Hawaiian Village and Hale Koa Hotels.
- Saratoga: This transit stop will be located near the Waikiki Post Office at the Koko Head end of Fort DeRussy, and hotels on Saratoga and Kalia Roads.
- Kalakaua/Seaside: This Koko Head-bound transit stop will be adjacent to the Royal Hawaiian Shopping Center, and surrounding hotel and retail areas.
- Kalakaua/Uluniu: This Koko Head-bound transit stop will be located near Kuhio Beach across from the Hyatt Regency Hotel.
- Kapahulu: This on-street transit stop will be located on the Koko Head side of the intersection of Lemon Road and Kapahulu Avenue. The stop will serve the Honolulu Zoo and Kapiolani Regional Park.
- Kuhio/Liliuokalani: This Ewa-bound transit stop will be located by the Radisson Waikiki Prince Kuhio Hotel.
- Kuhio/Seaside: This Ewa-bound transit stop will be located across from the Waikiki Trade Center.

UH-Manoa Branch

Alignment

The UH-Manoa Branch alignment has been refined. After running on Richards Street for one block, the UH-Manoa branch will turn onto the curbside lanes of South King Street. Instead of turning on Ward Avenue to access Kapiolani Boulevard, the route will continue on South King Street to Pensacola Street. At Pensacola Street, the route will turn makai to connect with Kapiolani Boulevard. This realignment is a direct result of the input from working group members that a BRT alignment on Pensacola Street will result in less traffic impacts than on the already congested Ward Avenue and will better serve McKinley High School and the Kaiser

Honolulu Clinic. On Pensacola Street, the BRT will operate in two exclusive lanes next to the Ewa side curb. A raised landscaped median will separate the BRT vehicles from the three lanes of auto traffic.

The In-Town BRT will operate mostly in the center median of Kapiolani Boulevard to Atkinson Drive. The Koko Head-bound BRT will be in an exclusive median lane from Pensacola Street to Atkinson Drive. In the Ewa-bound direction the BRT will be in mixed traffic from Atkinson Drive to just past Kaheka Street, then in an exclusive median lane to just east of Piikoi Street, where it will transition in mixed traffic to a right turn at Pensacola Street. On Kapiolani Boulevard, between Atkinson Drive and Kalakaua Avenue, the Koko Head-bound BRT vehicles will operate in mixed traffic as they transition from the median transit lanes to curbside lanes. From Kalakaua Avenue to Isenberg Street, BRT vehicles will be in the curbside lanes operating in mixed traffic. Between Isenberg Street and University Avenue, the BRT vehicles will transition from curbside lanes to median lanes. From Kapiolani Boulevard to King Street on University Avenue, the BRT vehicles will be in exclusive median lanes. At King Street the mauka-bound BRT will transition to a semi-exclusive curb lane. Between Varsity Place and Sinclair Circle the mauka-bound BRT will operate in a mixed-traffic curb lane. The makai-bound BRT will remain in an exclusive median lane from Sinclair Circle to Kapiolani Boulevard.

On Kapiolani Boulevard, exclusive left-turn lanes for motorists will be provided at Pensacola Street, Piikoi Street, Kaheka/Mahukona Street, Atkinson Drive, McCully Street, Paani Street, Hoawa Street, Isenberg Street, and University Avenue. On University Avenue, left-turn bays will be maintained at Date Street, King/Beretania Streets, Varsity Place, Puaena Place, and Dole Street. The route will terminate in a counter-clockwise turn back loop at Sinclair Circle.

Proposed Transit Stops

- Iolani Palace: This transit stop will provide convenient access to the Post Office, Hawaii State Library, Honolulu Hale, State Capitol and Iolani Palace. The Koko Head-bound stop will be in front of the Post Office. The Ewa-bound stop will be in front of the State Library.

- Alapai Transit Center: Modifications to the existing Alapai Transit Center will enable connections between the In-Town BRT system and express buses to Windward Oahu and East Honolulu. Both stops will be on the Koko Head side of the King/Alapai Streets intersection.

- Thomas Square/ Neal Blaisdell Center (NBC): This transit stop will provide service to the Honolulu Academy of Arts, Thomas Square, Straub Clinic & Hospital and Neil Blaisdell Center. Based on input from the Downtown/Kakaako/Ala Moana Working Group, the BRT stops have been relocated to Koko Head of Ward Avenue.

- King/Pensacola: This new transit stop will be located on South King Street at Pensacola Street. It will serve McKinley High School, the Kaiser Honolulu Clinic and nearby residential areas.

- Pensacola/Kapiolani: This stop formerly on Kapiolani Boulevard will now be on Pensacola Street. This transit stop will serve nearby residential areas and potential development, which may occur on the site of the former community college and vacant lot on the corner of Pensacola Street and Kapiolani Boulevard.

- Ala Moana/Keeaumoku: This transit stop will serve Ala Moana Center and existing and future developments in the Keeaumoku area.

- Convention Center: This transit stop will be located on Kapiolani Boulevard at Atkinson Drive and Kalakaua Avenue. The Koko Head-bound platform will be located just Ewa of Atkinson Drive, while the Ewa-bound platform will be located Ewa of Kalakaua Avenue.

- Isenberg: This transit stop will serve the McCully/Moiliili residential area.

- University/King: This transit stop will be located mauka of King Street in front of Varsity Theater and Puck's Alley. The mauka-bound stop will be curbside, whereas the makai-bound stop will be in the median.
- UH-Manoa: This transit stop, and the Koko Head terminus of the UH-Manoa Branch, will be located at Sinclair Circle to serve the UH campus, University High School and nearby residential areas.

Kakaako Mauka Branch

Alignment

The Kakaako Mauka Branch has also been refined. The Kakaako Mauka branch will extend from the Union Mall Transit Stop to Kapahulu Avenue at the Koko Head end of Waikiki, via the mauka portion of Kakaako. As a result of concerns from local residents and businesses, the alignment has been moved off Richards Street between Hotel and Halekauwila Streets. BRT vehicles traveling in the Koko Head direction will head makai on Bishop Street to Nimitz Highway, turn Koko Head and proceed along Nimitz Highway to connect with Halekauwila Street. BRT vehicles traveling in the Ewa direction will turn onto Ala Moana Boulevard from Halekauwila Street and turn mauka on Alakea Street to Hotel Street and the Union Mall Transit Stop. Two new transit stops will be added to the route. The first transit stop will be on Bishop Street between Queen Street and Nimitz Highway, and the second stop will be located on Alakea Street between Nimitz Highway and Queen Street.

The branch will run through Kakaako, just mauka of Ala Moana Boulevard on Halekauwila and Pohukaina Streets with a transition at South Street. The Ewa-bound lane on Halekauwila Street will be an exclusive lane between Punchbowl Street and Ala Moana Boulevard. Along the remainder of Halekauwila Street the BRT will operate in mixed traffic. In the Koko Head direction on Halekauwila Street, the BRT will be in mixed traffic all the way. At Kamani Street, the alignment will transition from Pohukaina Street and continue Koko Head on Auahi Street. Along Pohukaina and Auahi Streets the BRT will be in semi-exclusive curb lanes. Once it crosses Ward Avenue on Auahi Street the Kakaako Mauka Branch will continue to and through Waikiki using the same alignment as described for the Iwilei-Waikiki Branch.

Proposed Transit Stops

The following discusses transit stops that will be unique to the Kakaako Mauka Branch:

- Bishop: This Koko Head-bound transit stop will be located adjacent to the Topa Financial Center (previously known as Amfac Center) on Bishop Street just makai of Queen Street.
- Alakea: This Ewa-bound transit stop will be located adjacent to the Harbor Square tower on Alakea Street.
- Halekauwila: This transit stop at Punchbowl Street on Halekauwila will serve the Restaurant Row complex, Prince Kuhio Federal Building, and other nearby government and commercial centers.
- Cooke Street: This transit stop on Pohukaina Street will be adjacent to Mother Waldron Park and serve planned residential, retail and commercial uses in the area.

To give transit the priority necessary to make it an attractive alternative to the private automobile, some lanes along the proposed In-Town BRT alignment will need to be converted from general-purpose lanes to transit only lanes. This will result in an increase in the person-carrying capacity of these streets yet will result in a reduced number of lanes for general-purpose traffic. Table 2.2-8 summarizes the proposed redistribution of lanes. The table has been updated since the MIS/DEIS to reflect the Refined LPA.

TABLE 2.2-8
PROPOSED DISTRIBUTION OF LANES WITH REFINED LPA

	NUMBER OF LANES				
	EXISTING		PROPOSED		
Location	General Purpose	Exclusive Transit	General Purpose	Semi-Exclusive Transit	Exclusive Transit
Dillingham Boulevard					
Middle St. - Laumaka St.	6+1 turning	0	6+1 turning	0	0
Laumaka St. - Kaaahi St.	4+1 turning	0	2+1 turning	0	2
Kaaahi Street					
Dillingham Blvd. – Kaaahi Place	2+1 turning	0	2+1 turning	0	0
Kaaahi Place – Iwilei Road	0	0	2	0	2
Iwilei Road					
Kaaahi Street – N. King St.	4	0	3	0	1
N. King Street					
Iwilei Rd. - Hotel St.	4+1 turning	1	4	0	2
Hotel Street					
N. King St. - Richards St.	0	2	0	0	2
Richards Street					
Hotel St. - King St.	2	0	2	0	1
S. King Street					
Richards St. - Mililani St.	5	0	4	0	1
Mililani St. - Alapai St.	6	0	5	0	1
Alapai St. – Pensacola St.	6	0	4	1	1
Pensacola Street					
S. King St. - Kapiolani Blvd.	4	0	3	0	2
Kapiolani Blvd.					
Pensacola St. – Kaheka St.	6	0	4+1 turning	0	2
Kaheka St. – Atkinson Dr.	5+1 turning	0	4+1 turning	0	1
Atkinson Dr. - Kalakaua Ave.	6+1 turning	0	6+2 turning	0	0
Kalakaua Ave. – University Ave.	6+1 turning	0	6+1 turning	0	0
University Ave.					
Kapiolani Blvd. – King Street	6+1 turning	0	4+1 turning	0	2
King St. – Varsity Pl.	6+1 turning	0	4+1 turning	1	1
Varsity Pl. – Sinclair Circle	6	0	5	0	1
Alakea St.					
S. Hotel St. – S. King St.	6	0	5	1	0
S. King St. – Queen St.	4	0	4	0	0
Queen St. – Nimitz Highway.	4+1 turning	0	4	0	1
Nimitz Highway					
Alakea St. – Richards St.	6+1 turning	0	6+1 turning	0	0
Halekauwila St.					
Richards St. – Punchbowl St.	1	0	1	0	1
Punchbowl St. – South St.	2	0	2	0	0
South St.					
Halekauwila St. - Pohukaina St.	4	0	2	1	1
Pohukaina St.					
South St. – Kamani St.	2	0	2	2	0
Kamani St.					
Pohukaina St. - Auahi St.	2	0	2	0	0
Auahi St.					
Kamani St. - Ward Ave.	5	0	5	0	0
Ward Ave. – Queen St.	4	0	2	2	0
Queen St.					
Auahi St. - Ala Moana Blvd.	4+1 turning	0	3+1 turning	1	1
Ala Moana Blvd.					
Queen St. - Atkinson Dr.	6+1 turning	0	4+1 turning	1	1
Atkinson Dr. – Hobron Lane	6+1 turning	0	5+1 turning	1	1

TABLE 2.2-8 (CONT.)
PROPOSED DISTRIBUTION OF LANES WITH REFINED LPA

	NUMBER OF LANES				
	EXISTING		PROPOSED		
Location	General Purpose	Exclusive Transit	General Purpose	Semi-Exclusive Transit	Exclusive Transit
Hobron Lane – Kalia Road	6+1 turning	0	6+1 turning	2	0
Kalia Rd.					
Ala Moana Blvd. – Maluhia St.	5	0	4	0	1
Maluhia St. - Saratoga Rd.	2	0	2	2	0
Saratoga Rd.					
Kalia Rd. - Kalakaua Ave.	3	0	2	2	0
Kalakaua Ave.					
Saratoga Rd. - Kaiulani Ave.	4	0	3	1	0
Kaiulani Ave. – Uluniu Ave.	3	0	2	1	0
Uluniu Ave. – Kapahulu Ave.	3	0	3	0	0
Kapahulu Ave.					
Kalakaua Ave. - Kuhio Ave.	4	0	4	0	0
Kuhio Ave.					
Kapahulu Ave. - Kalaimoku St.	4+1 turning	0	2+1 turning	1	0
Kalaimoku St.					
Kuhio Ave. - Kalakaua Ave.	2	0	2	0	1
Bishop St.					
S. Hotel St. – Queen St.	5	0	5	0	0
Queen St. – Nimitz Highway	4	0	3	1	0
Nimitz Highway – Aloha Tower Dr.	4	0	4	0	0
Aloha Tower Dr.					
Bishop St. – Connector St.	3	0	3	0	0
Connector St. – Ala Moana Blvd.	1	0	1	0	0
Ala Moana Blvd.					
Connector St. – Forrest Ave.	6	0	6	0	0
Forrest Ave.					
Ala Moana Blvd. – Ilalo St.	4	0	4	0	0
Ilalo St.					
Forrest Ave. – Ahui St.	2	0	2	0	0
Ward Ave.					
Ahui St. – Auahi St.	5	0	5	0	0
Ala Moana Blvd.					
Forrest Ave. – Connector St.	6	0	6	0	0
Connector St. (Richard St. Extension)					
Ala Moana Blvd. – Aloha Tower Dr.	2	0	2	0	0
Nimitz Highway					
Bishop St. – Alakea St.	6+2 turning	0	6+2 turning	0	0

- Source: Parsons Brinckerhoff, September 2002.

5) Transit Technology for the In-Town BRT System

The In-Town BRT system will use hybrid diesel-electric powered vehicles unless a superior and cost-effective alternative is found. The City continues to track development of an all-electric touchable embedded plate system; and its impacts are discussed in this FEIS. However, no decision on using such a system would be made until it is proven revenue service-worthy and additional environmental review is conducted.

Selection of a transit technology that best harmonizes with the densities in Honolulu's Urban Core is a key decision. The technology must maximize beneficial impacts, such as facilitation of desired urban land use patterns and improvement of the quality of urban life, while minimizing adverse impacts. To help identify appropriate candidate technologies, ten criteria were established from community input and technical evaluation. These criteria are:

- Right-of-Way (ROW): Selected technologies must not require a new dedicated ROW or grade separation because urban Honolulu has insufficient space for a new dedicated ROW, and a grade-separated system was previously proposed but did not obtain the required City Council support. Suitable technologies must be able to operate at-grade on existing streets and highways. While vehicles may operate in exclusive lanes, the technology must permit at-grade cross traffic and pedestrian crossings.
- Line Capacity: Selected technologies must have the capacity to move more than 3,000 passengers per hour per direction because travel demand forecasting indicates that this is the approximate line haul requirement in 2025.
- Emissions and Noise: Air pollution emissions from selected technologies must be substantially lower than the 2004 EPA regulations provided in Table 2.2-9. Once adopted, the EPA's 2004 regulations will apply to all transit vehicles, including those powered by diesel engines. Noise emissions must not exceed those of a conventional light rail vehicle or trolley bus with electric propulsion.
- Service Proven: Selected technologies must either show sufficient maturity, or the technology must be in an advanced stage of development. If the technology is not yet "proven in revenue service", the risk associated with implementing a developmental technology must be carefully weighed.
- Affordability: Selected technologies must have system costs per unit length not exceeding that of an at-grade light-rail line of $60 million per mile in 2002 dollars.
- Safety: Selected technologies must meet local and national life/safety requirements.
- Accessibility: Selected technologies must comply with Americans with Disabilities Act (ADA) requirements.
- Visual Impact: Selected technologies must not require an overhead guideway or overhead contact system (overhead wires or catenaries) for wayside propulsion that disrupts mauka-makai views.
- Flexibility: Selected technologies must have the capability to be re-routed around blockages, and not preempt parades and other activities along the alignment.
- Sense of Permanence: Selected technologies must represent a substantial government commitment to a specific alignment in order to evoke the desired land use response from land developers.

TABLE 2.2-9
EPA URBAN BUS ENGINE STANDARDS (G/BHP-HR)

Year	HC	CO	NO_x	PM
2004 Proposed	0.5	15.5	2.5 (NMHC) or 2.4 NO_x	0.05

Source: EPA, 1999.
Notes: g/bhp-hr – grams per brake horsepower-hour, HC – Hydrocarbons, CO – Carbon Monoxide, NO_x – Nitrogen Oxides, PM – Particulate Matter, NMHC - Non-Methane Hydrocarbons

Technologies currently under consideration have the following features: (1) rubber-tired, (2) low floor, (3) driver operated, (4) located at-grade in a reserved right-of-way (street lane), (5) able to be crossed by pedestrians and other traffic, (6) single articulated, (7) capable of operating under their own power for short distances to avoid disruptions in the transit lane, and (8) electrically powered. Technologies rejected from further consideration are presented in Section 2.6.

The requirement for electric power is driven by concerns about air and noise emissions. Electric power would be provided either from power modules embedded in the street (touchable embedded plate technology), or

on-board hybrid electric propulsion in which a diesel engine powers an alternator, which produces electricity. The electricity is stored in a battery, and the power is distributed by electric cable to "hub motors", which are electric motors located on each wheel. In this manner, it is possible to eliminate the drive train, facilitating a "low floor" configuration.

Overhead wires (catenaries) would not be required under either technology option.

This FEIS was prepared to permit either option to be selected later in the project development process. This FEIS analysis reflects the 'worst case' impacts of both technologies. The degree to which the lesser impact technology would reduce impacts is also discussed in this FEIS.

The technologies under consideration are now described.

Embedded Plate Technology

An embedded plate technology (EPT) is a form of wayside traction power delivery in which a power strip is embedded in the roadway or installed in a track. The power strip does not cause electric shocks if touched by persons or by crossing traffic.

One design, STREAM by Ansaldo/Breda, employs a segmented power strip that is embedded in the street. Each segment of the power strip is energized only when the power collector below the transit vehicle is in contact with the segment. At all other points, the power strip is not energized, and therefore poses no hazard to pedestrians or other surface traffic crossing the alignment. The energized segment is always underneath the vehicle, and within its boundaries.

When the vehicle leaves the transitway lanes with the power strip, it shifts automatically to on-board batteries that are kept charged. The batteries are able to power the vehicle after it leaves the transitway, allowing the vehicle to cross difficult intersections, make tight turns, move during emergencies, and maneuver during maintenance. Since the batteries are charged during normal operation, the vehicle does not need to stop for the batteries to be changed or charged.

The STREAM technology was conceptualized in 1994 and underwent approximately 7 years of research, design, and testing at a test track in Rome. A 1.25-mile system has been constructed in Trieste, Italy and is under further testing in revenue service. The Trieste system uses both 40-foot and 60-foot buses. Each bus is equipped with Nickel Metal Hydride batteries that allow the buses to operate on non-energized portions of the line. The STREAM technology could provide quiet, comfortable, and environmentally clean transportation service with great user appeal in Honolulu.

The STREAM technology may require additional safety tests to qualify for U.S. safety certification. Based on progress to date, the earliest estimated date for use of the STREAM system in the U.S. would be no earlier than 2005.

Another design, by Wamplfler (a German firm), employs "inductive power transfer" (IPT), the same electrical principle as in a transformer. Insulated rails embedded in the road surface carry an electric current that induces a current in power pickups on board the vehicle. In contrast to STREAM, no surface contact is required. The pick-up on the vehicle captures a magnetic field generated by the power strip in the road. Power is received as alternating current that is rectified on board to become direct current.

With batteries on-board the vehicle, the power strip could be interrupted at intersections and other areas where its placement would be difficult or expensive. The batteries would provide power to cross areas without a power strip. IPT could also be used to charge the batteries of a transit vehicle at transit centers or stops. IPT is not yet available for the high-powered requirements of mass transit installations, such as

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monorails or BRTs. However, the IPT system is currently available for continuous loads of approximately 150 KW. Higher power transit applications are expected in the near future.

Alstom Transport is also currently developing a touchable embedded power supply system called ALISS, which is similar to STREAM and Wamplfer's IPT system. While STREAM uses a magnet to raise the conductor and power segments as the vehicle passes over it, ALISS has no moving parts. Radio communication between the vehicle and the embedded power supply system, and static switching results in segments being energized as the vehicle passes overhead. Unlike STREAM, ALISS is not integrated with a steering mechanism. ALISS requires the vehicle's power pick-up to be positioned over the units embedded in the roadway by independent means.

ALISS is still under development. Alstom has completed bench testing and is currently manufacturing some of the components for a test track at their manufacturing facility in La Rochelle, France.

Embedded plate systems will require the construction and operation of traction power supply stations (TPSS) that transmit the electricity to operate the vehicles. The approximately 15 TPSS sites to be located intermittently along the In-Town BRT alignment would each have a roughly 500 square-foot footprint and in most cases would be located out of sight inside existing or proposed buildings. Potential TPSS locations are designated on the preliminary engineering drawings provided in Appendix B (see Volume 4). However, since it would be 8 to 14 years before the EPT is installed depending on the segment, the locations shown on the design drawings are not site specific; each notation is intended only to indicate the general vicinity in which a TPSS would be placed. Site specific environmental assessments of each TPSS would be prepared prior to proceeding with implementation of EPT. Locations and design treatments would be established with community input.

Hybrid Diesel/Electric Propulsion

A hybrid propulsion system is one in which a diesel engine onboard the transit vehicle drives a generator (alternator) that produces electric power to charge batteries. In addition, the batteries are also charged during braking by operating the motors as generators (regenerative braking), which converts the kinetic energy of the vehicle into electrical energy that is stored in the battery.

Current is drawn from the batteries to run electric propulsion motors that drive the wheels, and the internal combustion engine is not directly coupled to the wheels. The configuration is similar to diesel/electric locomotives that have been in service for many years.

One advantage of this technology is that regardless of the speed of the vehicle, the internal combustion engine can be operated constantly at its most efficient speed and load. Running the engine at maximum efficiency maximizes fuel economy while minimizing air and noise emissions. The batteries can also be used to move the bus if there is a problem with the engine or alternator.

Diesel engine technology has advanced recently to reduce emissions, particularly in aspiration (i.e., getting air into the cylinders more efficiently), precise control of providing the fuel to the engine, and exhaust after-treatment. These developments, together with being able to operate the diesel engine at its most efficient speed and load, contribute to its lower exhaust emissions in comparison to conventional diesel technology.

It is expected that the emissions from diesel/electric hybrids will be significantly lower than the criteria presented earlier in Table 2.2-9, although the exact performance is still being established by government regulators.

New York City Transit Agency has extensively tested 40-foot hybrid electric buses for over 3 years and has ordered a fleet of 100 buses for revenue service. However, testing and manufacturing experience indicates

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that the battery technology is not easily extended to the larger 60-foot bus. If research efforts involving advanced electrical storage modules, such as the Super-Capacitor, are successful; a 60-foot hybrid prototype bus may be available to order in the 2004-2005 time frame (delivery is one to two years later). But, the share of the 60-foot bus market in the U.S. (5 percent) has not yet encouraged suppliers to focus on the research and development investment needed to produce a hybrid diesel/electric powered 60-foot model.

The use of Fuel Cell energy storage and propulsion technology has shown promising results in 40-foot bus testing by the Chicago Transit Authority (CTA). Fuel cells are energy storage devices that combine hydrogen and air to produce electricity. The only by-products are water vapor and carbon dioxide. CTA, along with other U.S. transit agencies, are currently expanding revenue service testing on these buses in limited numbers. Although a 60-foot bus has not yet been developed, the fuel cell technology will more easily lend itself to heavy-duty applications. Production quality revenue service 40-foot buses are expected in 2005, and 60-foot models may be available soon after.

Hydrogen can also be used as a fuel in the internal combustion engine. This technology is farther behind hydrogen fuel cell, although experiments using hydrogen in heavy-duty internal combustion engines have been ongoing for many years. There is currently no pure hydrogen fuels used in buses, and may not be for some time due to the difficulties in handling hydrogen gas.

The recent improvements in diesel engine technology (without hybrid drives) adequately meet the emission standards in Table 2.2-9 and provide the horsepower required for an articulated vehicle. Articulated buses using advanced diesel engine propulsion refer to this technology as "Clean Diesel" or "Diesel-Electric". "Wheel-hub motors" built into the hubs of the wheels facilitate the design of articulated, low-floor buses by eliminating the need for a drive shaft and axle under the vehicle and allowing the power plant to be placed in the rear of the vehicle. The CiViS bus, by Matra/Renault, has been in revenue service in Rouen, France since 2000 and will operate in the BRT system under development in Las Vegas by the Clark County Regional Transit (RTC) system later this year. Neoplan will also produce an articulated vehicle using this propulsion technology, in a dual-mode configuration alongside overhead catenary power, for the Massachusetts Bay Transit Authority (MBTA) Silverline BRT service in 2004.

Technology Selection for In-Town BRT

The transit industry is in an era of rapid change in propulsion system technology. The two candidate technologies, embedded plate and hybrid diesel-electric propulsion, are in various stages of development. It is too early to anticipate whether either one will be capable of meeting all of the In-Town BRT system performance and functional requirements prior to 2004. Hence, the City is proposing to use commercially available 40-foot hybrid diesel–electric buses as the interim technology to operate the In-Town BRT system in the near term.

The final selection of the technology for the In-Town BRT system would be based on a detailed evaluation of the technology options. The designs, and test/demonstration results of each technology would be evaluated against specific performance and functional requirements for the In-Town BRT system. These requirements would be provided to the manufacturers and they would be asked to provide the City with design data and test/demonstration results, as well as prepare written comments on the City's requirements.

An Industry Review would then be undertaken. Separate meetings would be held with each participating manufacturer to review their comments on the City's requirements and discuss the City's questions. Following these meetings and site visits, a transit technology would be selected.

6) Maintenance Facilities

Storage and maintenance of the In-Town BRT fleet would occur at the Kalihi-Palama Bus Maintenance Facility at Middle Street. No changes in the facility will be required to accommodate the IOS. As the In-Town

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BRT fleet expands beyond the initial IOS fleet of 10 buses additional service bays will be necessary to accommodate the In-Town BRT vehicles, and the facility will need to be expanded. This expansion will be coordinated with development of the Middle Street Transit Center. The expansion site will be adjacent to and makai of the existing Kalihi-Palama Bus Maintenance Facility.

7) Other Features

From Kapiolani Boulevard/Atkinson Drive to Koko Head of University Avenue, the a.m. and p.m. (morning and evening) peak period contra-flow lanes would be preserved and operate as at present. At the Atkinson Drive intersection, there would be a total of three left-turn only lanes during the a.m. peak period. On Atkinson Drive, between Kapiolani and Ala Moana Boulevards, the a.m. and p.m. peak period contra-flow lanes would be maintained.

2.3 CAPITAL COSTS

This section presents capital cost estimates of the three alternatives (see Table 2.3-1). The costs of the standard set of highway projects that are included in all three alternatives are not included in these costs.

TABLE 2.3-1
CAPITAL COST SUMMARY
(MILLIONS OF 2002 DOLLARS)

Project Component	No-Build	TSM	Refined LPA	
			With Hybrid-Electric	With EPT
Bus & TheHandi-Van Acquisition*	$394.1	$461.9	$512.5	$512.5
Regional Bus Rapid Transit	$10.3	$78.9	$203.0	$203.0
In-Town Bus Rapid Transit **	$0.0	$0.0	$239.4	$322.7
Total	**$404.4**	**$540.8**	**$954.9**	**$1,038.2**

* Includes new bus maintenance facility for TSM and Refined LPA Alternatives.
** Includes BRT vehicles net cost for advanced technology beyond standard bus cost.
Sources: Parsons Brinckerhoff for No-Build and TSM Alternatives. Rider Hunt Levett & Bailey Ltd. for Refined LPA. June, 2002.

2.3.1 Methodology

Cost estimates were prepared in 2002 dollars. Components include site preparation, roadways, ramp structures, pavements, landscaping and utility work, electrical and roadway work associated with the embedded-plate technology (EPT), restoration of adjacent infrastructure, and vehicles. Engineering design, owner administration, taxes and contingencies are also included. Land acquisition costs have now been included within the cost estimates as the specific locations for roadway improvements and EPT electrical substations have been identified during design development.

During this phase of the project, cost estimates are referred to as preliminary estimates, since they are based on preliminary design rather than detailed design. The level of design detail available for the project affects the accuracy of the cost estimates. Also, it should be understood that the cost estimates are applicable to the project description presented earlier in this Chapter. If features of the project change, the cost estimates would need to be adjusted accordingly.

Unit costs were derived from historical data from comparable transit systems, such as the BRT system in Orlando, Florida, and the recently completed H-3 Freeway project, as well as various private and public infrastructure projects recently bid within the State. Costs are based on in-place costs, including labor, construction, permanent equipment, and permanent materials. Prices for highly specialized systemwide components, including vehicles and the EPT within the roadway have been based on composite industry

prices from recent transit projects. To account for differences between Hawaii and mainland costs, a Hawaii adjustment factor was applied to items such as the price of materials and the cost of labor.

Basic assumptions used in developing the capital cost data are:

- Estimates were prepared using 2002 dollars;
- No premium time on labor costs was included;
- Normal productivity rates as historically experienced were utilized; and
- Adequate experienced craft labor is assumed to be available.

Typical facility costs are based on the preliminary engineering developed for each work item. Costs are developed by combining the costs of components applicable to a typical cross-section into one unit cost. These parametric unit costs have detailed unit price development backup to substantiate the parametric unit costs. Special facilities costs were developed for the EPT within the roadway and associated electrical supply and distribution elements needed to operate the system. Systemwide elements are those elements necessary for operation, but whose costs can only be partly allocated to a specific geographic segment of the system (e.g., vehicles, storage and maintenance facilities, and so forth).

Once the typical and special facility and systemwide element costs have been determined, they are subject to add-on factors. Add-on factors cover engineering, program administration, insurance, and contingencies. They are referred to as add-on factors because they are added to the unit costs.

Capital costs were developed for each alternative utilizing both "bottom up" and "top down" estimating approaches. However, most of the unit costs were developed using a "bottom up" approach, meaning the cost of each major category of work is determined by totaling the cost of their component parts. Based on the preliminary engineering, the quantities of the major work elements are defined. Unit prices for each major work element are developed and combined with the estimated quantities to determine the cost of each major category of work, such as transit stops, park-and-ride facilities, access ramps, transit platforms, roadway pavement, and so forth. The advantages of this approach are the ability to adjust costs with engineering refinements, and a higher level of confidence.

The unit prices include contractor-supplied insurance. On many major projects, the owner supplies the insurance or assumes management risks in order to reduce costs.

As noted, the costs for design and construction administration have been added to the hard construction costs. This category also includes system start-up costs, as these activities are interrelated with the engineering and construction work. The allowance included is eight percent, and it was applied to all capital cost categories except right-of-way acquisition, relocation, and vehicles. Generally, six percent is for engineering and design, and two percent is for construction administration.

A contingency is included in the capital cost estimate to account for unforeseen items, quantity fluctuations and variances in unit costs as the project progresses. This percentage will be reduced as the project progresses, and reflects the degree of risk associated with the level of engineering data presently available. The civil and utility scope of construction work was reduced from the 25 percent contingency outlined in the MIS/DEIS to an amount consistent with the industry standard on the order of 15 percent given the development of the documentation during the preliminary engineering phase. However, the MIS/DEIS contingency of 25 percent was retained for the work associated with the EPT installation, as the level of information available for this area of work is considered more preliminary. The 25 percent MIS/DEIS contingency has been maintained for all land acquisition costs. A 10 percent contingency was applied to BRT vehicles.

The cost of the applicable general excise tax mandated by the State of Hawaii is included as a percentage (4.166) of the total capital cost of all categories.

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2.3.2 Results

Table 2.3-1 shows the capital cost estimates for the transit portion of the three alternatives, by project component in 2002 dollars. They span a range from about $404 million for the No-Build Alternative, to $1.0 billion for the Refined LPA with embedded plate technology. The Refined LPA with hybrid diesel-electric technology would be around $960 million. These cost estimates exaggerate the initial capital costs since they reflect the replacement of the entire bus, TheHandi-Van, and In-Town BRT vehicles over the 23-year analysis period of the FEIS. Initial costs (first 16 years) in 2002 dollars would be $182 million for the No-Build Alternative, $266 million for the TSM Alternative, and $633 million for the Refined LPA, exclusive of EPT costs.

These cost estimates are different from the estimates shown in the MIS/DEIS and SDEIS due to the refinements incorporated into the Alternatives as the project has progressed. In the case of the Refined LPA, the refinements have included some cost saving measures that are estimated to result in a lowered capital cost for the project.

2.4 OPERATING AND MAINTENANCE COSTS

This section presents estimates of annual operating and maintenance (O&M) costs for the transit (fixed-route bus) elements of the three alternatives. For the purpose of this chapter, the operating and maintenance costs of the highway projects that are included in all three alternatives are not included in these costs, other DTS and HDOT O&M costs are not reflected (e.g., costs of coning contraflow lanes, maintaining traffic signals and bus priority measures) and the costs of operating and maintaining TheHandi-Van fleet are also not included. O&M costs including TheHandi-Van are discussed in Chapter 6. The costs of operating the Luapele Drive reversible ramp and the addition to the existing zipper lanes are not included in the estimates. The costs of administering the Vanpool Hawaii program are assumed to equal the direct revenues and federal funding (i.e. break-even operation). The costs are for the forecast year 2025, assuming full development of each alternative, and are expressed in 2002 dollars.

2.4.1 Cost Estimation Methodology

Costs are produced using an estimation methodology for bus supply characteristics, calibrated to Oahu Transit Services (OTS's) annual expenses for 2000, which is the most recent year for which very detailed itemizations of costs are available. Costs then are escalated to Year 2002 values using OTS's observed unit cost inflation during the two-year period, for the system as a whole. The inputs to the estimation are prepared by the travel demand forecasting models and consist of passenger loading assigned to the bus routes, as coded for the travel demand forecasting models, for the a.m. peak period, the p.m. peak period and the off-peak period, as well as the estimated running time and distance for each bus route. The bus supply estimation methodology takes these inputs and estimates the frequency of bus service and number of vehicles – either standard buses, minibuses, articulated buses, or BRT vehicles – needed to accommodate the estimated demand during each of the three time periods. It further estimates the vehicle hours and miles that would be provided for the entire day. These daily estimates are then increased to an annual estimate and used to estimate annual bus operating costs. All steps in the process rely on data provided by OTS about its operating practices on a daily and annual basis.

Annual operating and maintenance costs are estimated as a function of three variables: annual revenue vehicle miles, annual revenue vehicle hours, and peak vehicles. "Peak vehicles" represents the maximum number of vehicles required for providing peak period service, and provides the closest measure available for representing system size. Note that "peak vehicles" is not the same as "fleet size"; the latter additionally includes spare vehicles. A unit cost has been estimated for each variable. In addition, an amount for fixed costs is added to reflect administrative or overhead type costs incurred in operating the transit system. Based on experience elsewhere, different unit costs are used for standard 40-foot buses (or 30-foot minibuses) and 60-foot articulated buses. Annual costs are estimated using the following equation:

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Annual O&M Cost = $ 52.08 x Annual Revenue Vehicle Hours
+ $ 0.99 x Annual Standard or Minibus Revenue Vehicle Miles
+ $ 1.38 x Annual Articulated Revenue Vehicle Miles
+ $ 56,138 x Standard or Minibus Peak Vehicles
+ $ 66,671 x Articulated Peak Vehicles
+ $8,860,230 in Fixed Costs.

The variables above are estimated for each alternative's operating plan.

In addition, O&M costs for embedded plate and hybrid diesel-electric vehicles are estimated to be eight percent higher than articulated vehicles. This eight percent increase reflects the O&M cost differential that King County Metro Transit in Seattle has observed between normal articulated buses and the dual-power articulated buses that operate in the Downtown Seattle Transit Tunnel. These buses operate both on diesel power and electric power, with electric power picked up via trolley poles. The cost differential for these more-complicated buses is being used as a guide for the additional O&M costs that might be associated with embedded plate or hybrid diesel-electric vehicles.

2.4.2 Results

Table 2.4-1 presents the annual O&M costs in 2002 dollars using the methodology described above. The Handi-Van operations are not included in these costs.

TABLE 2.4-1
ANNUAL OPERATING AND MAINTENANCE COST SUMMARY, 2025[1]
(MILLIONS OF 2002 DOLLARS)

Alternative	Bus O&M Cost	In-Town BRT O&M Cost	Total Project O&M Cost
No-Build	$120.7	--	$120.7
TSM	$139.8	--	$139.8
Refined LPA	$144.3	$7.0	$151.2

Source: Parsons Brinckerhoff, June 2002.
Note: 1) Excludes TheHandi-Van O&M cost.

As indicated in Table 2.4-1, O&M costs for the No-Build Alternative in 2025 would be about $120.7 million (in 2002 dollars). This compares to current 2002 operating costs for the existing bus system of $114.1 million, not including TheHandi-Van operations. This increase is due to the fact that population growth between now and 2025 will require expanded service into areas not already served by transit.Comparing the TSM Alternative to the No-Build Alternative, one can observe that the TSM alternative would increase O&M costs by about $19.1 million, to about $139.8 million. The TSM Alternative attempts to accomplish as much as possible by expanding the bus system without making a major capital investment. The system expansion inevitably entails additional O&M costs.

The O&M cost for the Refined LPA includes two components: the cost of bus service and the cost of the In-Town BRT service. The In-Town BRT service includes $420,000 per year to maintain the electrical distribution infrastructure. The added cost of operating an extended a.m. zipper lane and the p.m. zipper lane on H-1 is assumed as a HDOT cost, not a PCTP cost.

2.5 IMPLEMENTATION SCHEDULE

This section presents the proposed implementation schedule for the alternatives. The proposed schedules for each alternative are shown in Figures 2.5-1 and 2.5-2.

The No-Build Alternative schedule consists of an ongoing, regular program of bus acquisition from the present through 2025. These acquisitions would both retire older vehicles, and increase the fleet size. Vehicle types would include those for TheBus and the TheHandi-Van programs. The baseline transit network includes the reorientation of the bus route structure to a hub-and-spoke network. The transit centers that have already been committed to the hub-and-spoke network and have been included in the Oahu Transportation Improvement Program, FY 2002-2004, would remain as part of the No-Build and TSM Alternatives, and the Refined LPA.

The No-Build Alternative also includes a new transit center with parking in Kapolei and a new park-and-ride along North-South Road.

The TSM Alternative also includes the No-Build Alternative elements and adds the following elements:

- Expansion of a bus maintenance facility between 2014 and 2015;
- Implementation of three bus priority measures, primarily between 2003 and 2005; and
- Construction of the a.m. zipper lane extension and Moanalua Freeway/Middle Street ramp improvements between 2006 and 2008.

The following factors were considered when developing the overall project schedule for the Refined LPA:

- Cash flow analysis;
- Geographically distributing project benefits at each phase of construction;
- Minimizing construction-stage impacts in one area at one time by geographically distributing the work at each stage of construction; and
- Synergies among different project elements.

Based on these considerations, the BRT project elements will be implemented as a series of manageable, discrete projects. At each stage of project development, including the initial IOS phase, the elements in place at that time would work with the rest of the transit network to improve transportation service. Benefits would start accruing immediately, and the level of benefit would increase as more components are added through time.

The resulting schedule includes the following time frames for the major Refined LPA project elements and other related projects:

- DTS is currently transforming the bus network to a hub-and-spoke network. The transit centers that would be constructed for the hub-and-spoke network are being implemented by DTS as separate projects from the Refined LPA and would be implemented from 2003 – 2005. These projects are designated in Table 2.5-2 as Hub-and-Spoke Transit Centers.
- Implementation of the In-Town BRT will begin with construction of the IOS (Iwilei-Waikiki Branch without EPT) from 2003 through 2005. There is further discussion on the Initial Operating Segment (IOS) between Iwilei and Waikiki in the IOS Supplement following Chapter 5 of this FEIS.
- The remainder of the In-Town BRT will be started shortly after the IOS, with concurrent implementation of the Kalihi Segment (2004 – 2006), Downtown – University segment (2005 – 2007) and Kakaako Mauka segment (2005 – 2006).

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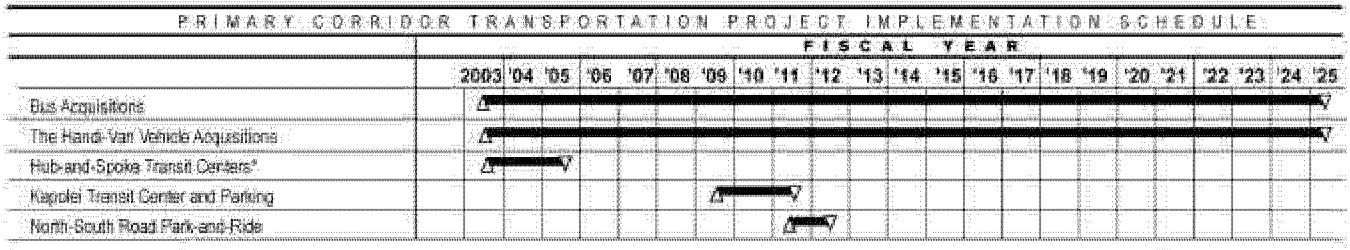
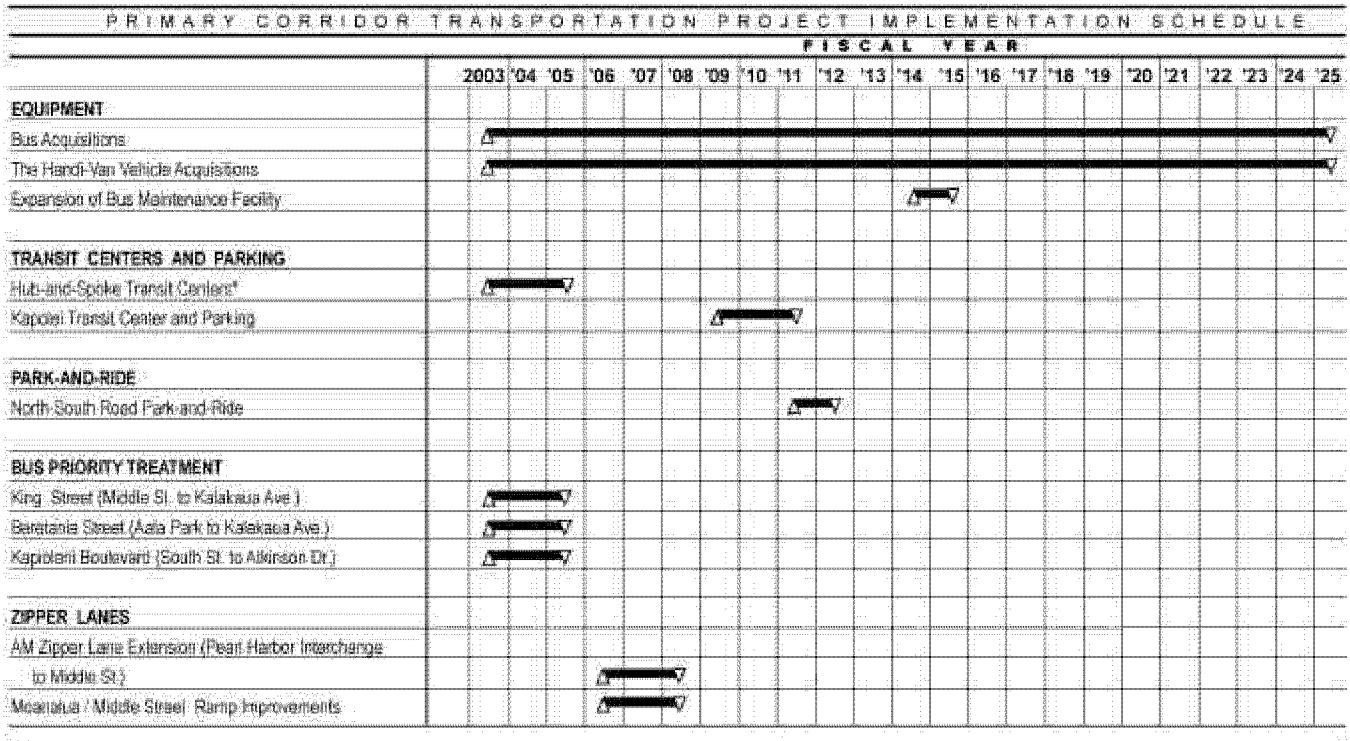
No-Build Alternative



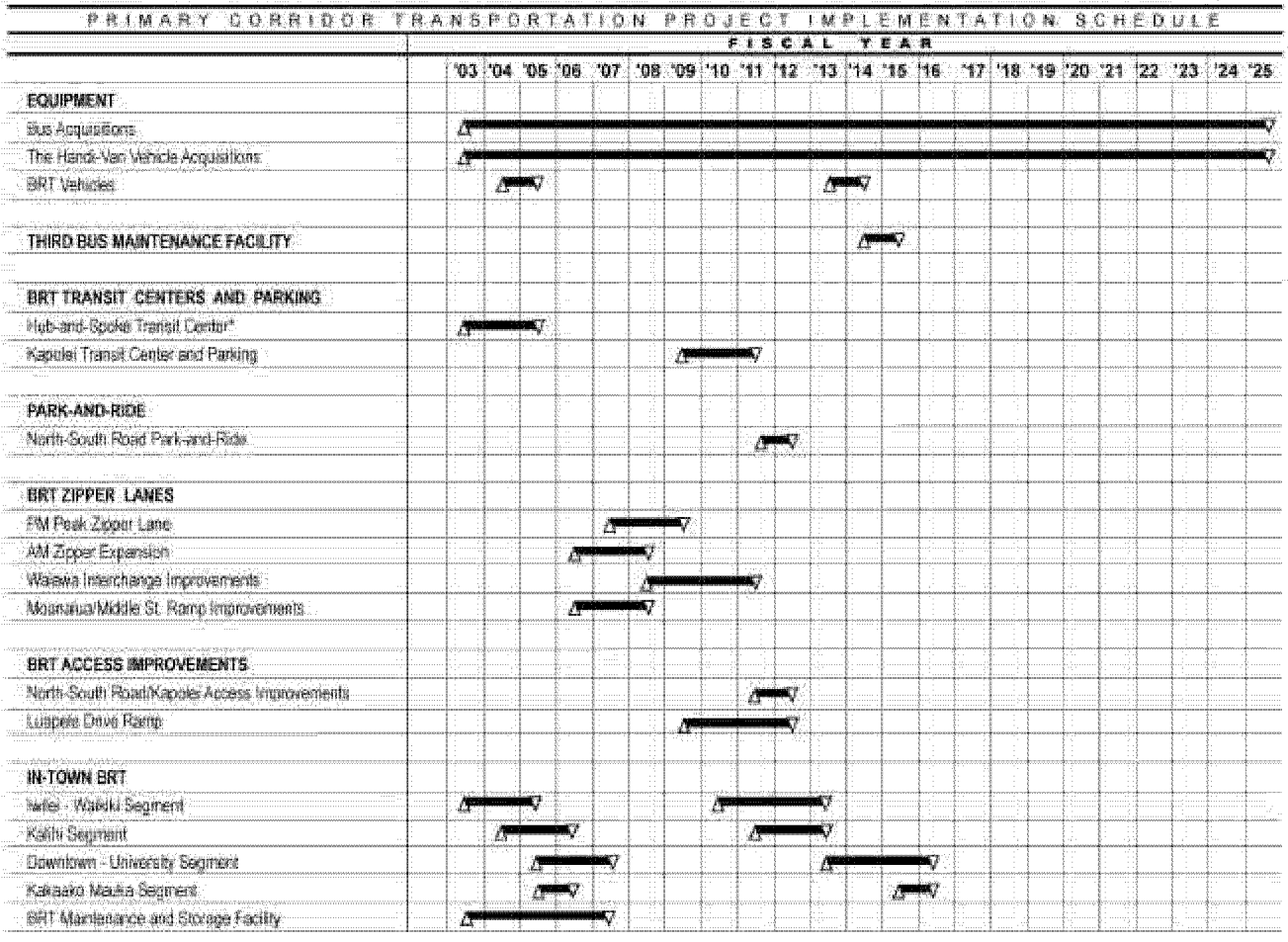
TSM Alternative



* Will be implemented by DTS as separate projects.

Primary Corridor Transportation Project Implementation Schedule: No-Build and TSM Alternatives — **Figure 2.5-1**

Refined LPA



* Will be implemented by DTS as separate projects.

Primary Corridor Transportation Project Implementation Schedule: Refined LPA — **Figure 2.5-2**

- During the initial years of operation, the Downtown – University segment of the BRT would operate in semi-exclusive curbside lanes on Kapiolani Boulevard before ultimately operating in exclusive lanes in the center of the street. Early year forecasts indicate that exclusive lanes will not be needed during the initial years.
- Other locations where priority lanes will be phased in over time are on Ala Moana Boulevard between Queen Street and the Ala Wai Canal and on Kuhio Avenue in Waikiki. Early year forecasts indicate that it would be preferable for the In-Town BRT to operate in mixed traffic along these segments until ridership levels support the conversion to semi-exclusive and exclusive lanes.
- Thirty hybrid-electric vehicles will be ordered for delivery in sync with completion of the fixed facilities so that operations can begin on the Iwilei-Waikiki branch in 2005 and in 2007 for the entire In-Town BRT. Ten of these needed for the Initial Operating Segment will be scheduled for arrival in 2005, ten for arrival in 2006 and ten in 2007. Additions to the existing Kalihi-Palama maintenance facility will not be needed to serve the ten IOS buses, but will be needed by 2007 to service and store the larger BRT fleet.
- Implementation of the embedded plate system, if selected as the long-term propulsion technology, would begin with construction along the Iwilei-Waikiki segment in 2010. The complete conversion to EPT on all In-Town segments would occur in 2016.
- Phasing of the Regional BRT will begin with the a.m. zipper lane extension in 2006. The p.m. zipper lane will be constructed between 2007 and 2009, with the extension of the zipper lane to H-2 via the Waiawa Interchange occurring between 2008 and 2011.
- Kapolei Transit Center will be built between 2009 and 2011; and the North-South Road Park-and-Ride and access improvements between 2011 and 2012.
- The Luapele Drive BRT ramp will be implemented between 2009 and 2012.

2.6 SCREENING OF ALTERNATIVES

The alternatives have evolved over the course of the Primary Corridor Transportation Project through an iterative process. A wide-range of options was progressively analyzed in increasing detail until it was winnowed down to the "best fit" alternatives described in Section 2.2. The evolution was based on conceptual engineering and cost analysis as well as public and agency review and comment. This Section summarizes the results of the various iterative steps in the development and screening of the alternatives:

- Section 2.6.1 describes the major alternatives that were eliminated early on. The initial alternatives, as presented in the project's Environmental Impact Statement Preparation Notice (EISPN) and Notice of Intent to Prepare an EIS (NOI) were No-Build, Enhanced Bus/TSM, BRT and LRT with three LRT sub-alternatives (LRT 1, 2 and 3). Comments were received in response to the EISPN, and responses to those comments that addressed alternatives are listed in Section 2.6.1. Also listed in this section are comments received in response to the EISPN and NOI for the Supplemental DEIS.
- Section 2.6.2 discusses the alternative alignments for the In-Town BRT that were rejected.
- Section 2.6.3 sets forth the criteria for selection of the transit technology for the In-Town BRT and describes the candidate technologies no longer under consideration.

2.6.1 Alternatives Considered and Eliminated

Two alternatives often studied by other communities considering major transportation investments were eliminated early on by the public for Honolulu's primary transportation corridor because they were deemed not responsive to the purpose and need statements in Chapter 1 and the stated goal of the City Council from the outset of the study, which was to keep the project affordable. These alternatives were a fully grade-separated transit alternative, and an all-highway alternative to transit. The public input and analytical process that led to elimination of these alternatives is discussed.

1) Fully Grade-Separated Transit Alternative

Advantages of a fully grade-separated transit alternative are:

- It would be completely buffered from the existing surface road network and its congestion, allowing transit vehicles to move quickly on a dedicated right-of-way, free from interference with any other transportation system; and
- It would not create a significant impediment to the operation of the surface road system.

A fully grade-separated transit system would offer the maximum performance possible with transit, and therefore provide transit patrons with the highest level of service.

Grade separation of a transit system in the primary transportation corridor could be achieved with an elevated guideway, an underground subway, or some combination of the two. Fully grade-separated transit systems for Honolulu have been seriously considered twice in the past three decades. In both instances, extensive analysis produced a strong and credible case for grade-separated transit investments. Nonetheless, the proposals ultimately were not built due to lack of sufficient support by the public and/or elected officials.

The concerns that led to the rejection of the most recently proposed elevated rapid transit system were primarily two: (1) its high cost and (2) its physical and visual impacts.

Previous studies have shown that construction of a subway through Honolulu's urban core would be prohibitively expensive. The extreme disruption of existing underground utilities and constant dewatering made necessary by a high water table and poor soils would drive construction costs to unacceptable levels ($3.6 billion in 2002 dollars for a 12.8-mile system along the presently proposed In-Town BRT alignment). While an elevated guideway would be less costly than a subway, such a system would still be substantially more expensive and visually more obtrusive than an at-grade system. The elevated system proposed most recently was abandoned when elected policymakers would not approve a local funding mechanism that required an increase in taxes. A 12.8-mile elevated rapid transit system along the presently proposed In-Town BRT alignment would cost on the order of $1.95 billion in 2002 dollars. By comparison, the In-Town BRT costs are estimated at approximately $240 million in 2002 dollars, assuming hybrid diesel-electric technology and approximately $325 million assuming embedded plate technology.

Public input received in hundreds of Vision Team and Oahu Trans 2K meetings and workshops attended by thousands of Oahu residents revealed widespread agreement that while an elevated transit system might serve the goals of improving in-town mobility and strengthening connections between communities, such a system would not foster livable communities. The predominant sentiment among thousands of participants was that a grade-separated transit system would be unacceptably: (1) intrusive on the visual environment; (2) divisive of communities; and (3) too expensive. These shortcomings were judged by public participants to outweigh the recognized benefits of a grade-separated system, i.e., high speed and capacity, increased reliability and reduced negative impact on the surface road system.

Honolulu's failure to complete the proposed elevated transit system a decade ago, and extensive public input into the current process, confirmed that a grade-separated system could not, because of its high costs, visual obtrusiveness, and community divisiveness, gain the level of local public and/or official acceptance necessary to sustain such an investment. All of the transit alternatives considered in the FEIS are therefore based on at-grade operation.

2) Highway Alternative to Transit Considered and Rejected

This section addresses the use of a highway solution to address the project's purposes and needs. The intent of the highway alternative is to provide people-carrying capacity comparable to the Regional and In-Town components of the transit system, and link the same origins and destinations.

Highway Alternative to the Regional Transit System

The construction and land acquisition costs to widen the H-1 freeway between Leeward Oahu and the PUC to serve commuter demands in single occupant vehicles rather than in BRT buses would be astronomical. The social and environmental impacts would also be intolerable. For comparison purposes therefore a greater shift to HOV usage was assumed for the all highway alternative to avoid these prohibitive costs and impacts. For the highway alternative, many of the features in the Refined LPA, including lane-use priority for multiple occupancy vehicles is assumed. An outbound, afternoon peak period contraflow zipper lane would be installed between Waiawa Interchange and Radford Drive and be available to vehicles with multiple occupants. The a.m. zipper lane would be extended to Middle Street, and the a.m. HOV/express lanes, and the p.m. HOV lanes currently in operation would be maintained. Ramp improvements at Waiawa Interchange would be provided. Park-and-rides would be constructed at Kapolei, North-South Road, and Aloha Stadium. Unlike the Regional BRT system, however, the proposed Luapele Drive bus priority ramp and the Middle Street Transit Center would not be provided. The cost of the highway only component from Kapolei to Middle Street in 2002 dollars would be approximately $150 million, in comparison to approximately $205 million for the Regional BRT system (exclusive of bus acquisitions and the cost of a new bus maintenance facility).

Roadway Alternative to the In-Town Transit Spine

To service commuter demands from the Ewa side of Oahu and travel demands from the Iwilei, Downtown and Kakaako communities equivalent to the In-Town BRT system, a highway alternative would require a two-lane viaduct on H-1 and North King Street would have to be widened to 6 lanes.

(1) Middle Street to Kalihi, Iwilei, Downtown and Kakaako Improvements

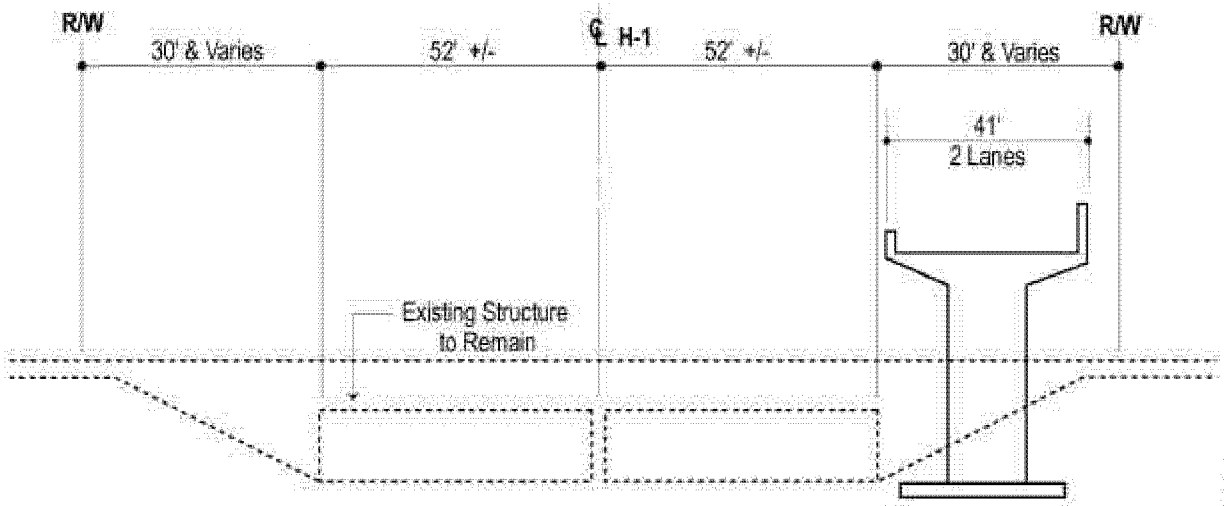
For the H-1 Viaduct, North King Street and other local roadway improvements listed below to provide comparable people-carrying capacity to the In-Town BRT system, the following would be required:

- Construct a two-lane H-1 viaduct (one lane in each direction separated by a median barrier) beginning about 1,000 feet before the tunnel under North King Street to just past the Vineyard Boulevard exit. The viaduct would be aligned along the side slope makai of H-1 (see Figure 2.6-1).
- Widen H-1 by one lane in each direction from the new viaduct to Punchbowl Street.
- Widen North King Street to six lanes between Middle Street and Liliha Street.
- Improve the North King Street/Liliha Street/Dillingham Boulevard intersection by adding lanes.
- Widen Liliha Street to six lanes from North King Street to H-1.
- Extend Queen Street and Pohukaina Street to Pensacola Street and convert to a one-way couplet.
- Reverse the one-way couplet direction of Pensacola Street and Piikoi Street.

These improvements from Middle Street to Downtown and Kakaako would cost a minimum of $950 million in 2002 dollars.

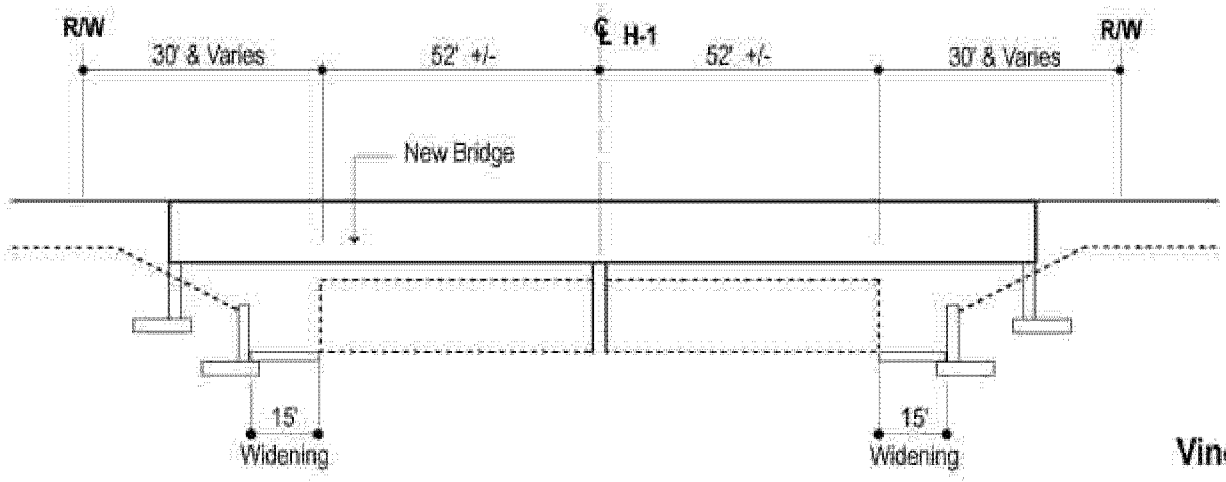
(2) Improvements to Access Waikiki

To service Waikiki at a level comparable to the BRT, the highway alternative would require an additional Koko Head-bound lane on H-1 between Ward Avenue and Punahou Street, a new interchange at McCully Street, a two-lane viaduct on McCully Street between H-1 and Waikiki, and various other interchange and highway improvements. The Piikoi Street Koko Head-bound on-ramp would be closed, thereby reducing the traffic volume on the H-1 segment between Ward Avenue and McCully Street. The elements to enhance access to Waikiki via roadway improvements would be as follows:



Note:
Existing R/W Location varies.

Kahauiki Interchange (Middle Street) to Vineyard Boulevard



Vineyard Boulevard to Punchbowl Street

Improvements to H-1 Between Middle Street and Punchbowl Street Required With a Highway Alternative to In-Town BRT

Figure 2.6-1

- Widen H-1 Ewa-bound by one lane between the Ward Avenue on-ramp to the Punahou Street off-ramp. Close the Piikoi Street on-ramp.
- Close the Lunalilo Street Ewa-bound on-ramp. Convert Magellan Avenue between Ward Avenue and Prospect Street to one-way operation. Construct Magellan Avenue braided on-ramp to connect just past the Pali Highway off-ramp.
- Construct a new H-1 interchange at McCully Street.
- Construct a new King Street Ewa-bound on-ramp (see discussion of Manoa interchange improvements that follow).

These improvements to access Waikiki would cost approximately $295 million in 2002 dollars.

(3) Improvements to Access UH-Manoa

Manoa interchange and other highway improvements are included in the highway only alternative to service the UH-Manoa area. In the Ewa-bound direction, traffic conditions would be improved by closing the H-1 Lunalilo Street on-ramp, eliminating the weave problem that creates congestion and backs up traffic beyond the Manoa interchange. A replacement on-ramp would be provided at Magellan Street, just prior to the Punchbowl on-ramp. These improvements would have operational benefits in the University to Downtown Ewa-bound H-1 segment. Roadway access improvements to the UH-Manoa area included in the highway alternative are:

- Close the Bingham Street Koko Head-bound and Wilder Avenue Ewa-bound off-ramps (to be replaced by the new McCully Street interchange).
- Construct Koko Head-bound collector-distributor (C-D) road starting just past the Bingham Street off-ramp. Redirect the University Avenue loop on- and off-ramps to connect to the C-D road.
- Reconstruct the University Avenue loop on- and off-ramps to connect to the C-D road.
- Construct new Lower Campus Road Koko Head-bound on-ramp and connect to new C-D road.
- Reconnect the new C-D road to H-1 just past the King Street off-ramp.
- Braid Ewa-bound University Avenue off-ramp with new two-lane King Street on-ramp
- Reconstruct University Avenue on-ramps to merge with H-1 just prior to the existing Wilder Avenue off-ramp (to be closed).

These improvements to access UH-Manoa would cost approximately $190 million in 2002 dollars.

The cost of the highway component from Kapolei to UH-Manoa in 2002 dollars would be approximately $1.6 billion, in comparison to approximately $445 million for the Regional and In-Town BRT system with hybrid diesel-electric technology and $525 million with embedded plate technology. It would therefore be significantly more expensive. Besides cost, there would be significant negative impacts to the environment as well as displacements if a highway alternative were to be substituted for the proposed BRT.

Consistency with Project Purposes and Needs

The project's purposes and needs are broader than just satisfying the suburban to Downtown commuter travel market. The purposes include fostering desired land use development patterns, enhancing the quality of in-town living and in-town mobility, and facilitating the development of livable communities throughout the island, but more importantly, in the PUC.

Given the project purposes and needs, a new or enhanced set of roads and highways that only provided for travel demand between suburban areas and Downtown would not satisfy the need of in-town travelers. For a highway to satisfy the project purposes and needs, it would need to perform the functions of the Regional and In-Town BRT system contained in the Refined LPA. A network of roadway improvements that attempts to

provide this capacity is described above. However, a highway alternative, unlike the In-Town BRT would not enhance in-town mobility and the quality of in-town living by providing a high capacity transit system across Honolulu's Urban Core. A highway alternative would not provide an alternative travel mode to the automobile. A highway alternative would be counter to, not supportive of the desired redevelopment pattern in the PUC (livable communities). Additionally, the network of roadway improvements described above would adversely affect neighborhood cohesion.

Conclusion

Because a highway solution that encouraged suburban/Downtown commuter cars to enter Downtown would be inconsistent with the project purposes of enhancing in-town mobility, quality of life, and fostering desired land use development patterns, it has been rejected. As with grade-separated transit, highway investment alternatives in the primary transportation corridor have been well studied over the past three decades. The studies have consistently concluded that building only highways without a major investment in a transit system is not a viable approach to solve Oahu's travel needs. The reasons fall into three categories: (1) excessive cost; (2) traffic impacts; and (3) environmental and community impacts. Roadway construction on the scale to provide the capacity of the In-Town BRT system would adversely affect neighborhood cohesion, create substantial residential and business displacements, create visual intrusions, increase noise impacts, modify existing surface transportation patterns, and create major disruptions during construction.

Development in the primary transportation corridor is very dense and there are few if any potential routes for new highways. Construction and land acquisition costs for highways sufficient to meet the demand of commuters between Leeward and Central Oahu and the PUC would be astronomical. Any widening of the H-1 Freeway between Middle Street and University Avenue would also require rebuilding of overpasses and access ramps. Similarly, double-decking would be too expensive in both construction and environmental costs. The network of roadway improvements described above would cost approximately $1.6 billion or more and would be substantially more costly than the $445 to $525 million cost (excluding bus acquisition and maintenance facility costs) for the comparable BRT components that they would "replace".

Even if it were practical to construct sufficient new highway infrastructure to meet commuter demand, it would be virtually impossible to expand the capacity of downtown surface streets to efficiently absorb the increased traffic. Based on the projected growth in travel, the City and State would need to construct 13 freeway lane miles and eight principal arterial lane miles annually just to keep congestion at the present level. This is the equivalent of building a new H-3 Freeway every 5 years.

There is insufficient public support for an all highway alternative. The Oahu Trans 2K outreach meetings revealed a clear community consensus that an important goal of any transportation program in the primary transportation corridor must be to foster livable communities. This consensus included general agreement that extensive widening and/or double-decking of roads through existing neighborhoods is not an acceptable alternative to increasing people-carrying capacity with a higher level of transit. Elimination of these options, in effect, eliminates any highway only alternative, because any such alternative would require one or all of them.

3) Comments on the Alternatives from Responses to the MIS/DEIS EISPN and SDEIS EISPN

The initial No-Build, Enhanced Bus/TSM, BRT and LRT Alternatives were described in the project's original EISPN and NOI. No responses were generated by the NOI. Some of the comments received in response to the EISPN pertained to alternatives. Comments on the alternatives from the agency and public scoping meeting duplicated comments received in response to the EISPN. Table 2.6-1 lists the alternatives suggested for consideration by the public and government agencies commenting on the EISPN, and how those suggestions have been addressed in project planning. Comments were also received in response to the EISPN and NOI for the Supplemental DEIS. Table 2.6-1 also lists the alternatives suggested for consideration in to the SDEIS EISPN and NOI.

TABLE 2.6-1
EISPN COMMENTS RELATING TO ALTERNATIVES

Comment	Commenter	Response
Address Highway Alternatives	FHWA	1) The Refined LPA is a combined highway and transit alternative. 2) A highway only alternative is not sufficient to satisfy project purposes and needs, as addressed elsewhere in Section 2.6.1. A highway only alternative is inconsistent with the public's vision for the island's transportation system, as documented through the Oahu Trans 2K process. 3) Highway improvements are included in the OMPO regional transportation plan (TOP 2025).
Ensure multi-modal Alternatives – more than just cars and buses	FHWA, DBEDT-Office of Planning	The TSM Alternative and Refined LPA are multi-modal alternatives.
Identifying stand-alone components of Alternatives	SDOT	The components of the alternatives are described in Chapter 2.
Use of chartered/subsidized vehicles at peak hours	SDOT; Douglas Meller	TDM measures such as those proposed are incorporated in all alternatives. For example, all of the alternatives include a vanpool component (use of subsidized vehicles at peak hours) and subscription buses (such as LOTMA).
Ferry Alternative	DBEDT-Office of Planning	A ferry system does not represent a comprehensive alternative that satisfies all of the project's purposes and needs. While a ferry system may become an important element of the total transportation system, a ferry system alone could not serve existing or future travel demand in the primary transportation corridor.
TDM Alternatives – regulate parking fees, etc.; road pricing	DBEDT-Office of Planning; Douglas Meller; Bruce Plasch	TDM measures are included in the alternatives, but are not expected to fully address projected increases in travel demand in the primary transportation corridor.
Incentive and education programs on alternative transportation (e.g. various forms of HOV); disincentives on single-occupant private automobile transportation	Hawaii Bicycling League; Life of the Land	1) DTS and SDOT will continue to promote multi-modal transportation (e.g., SDOT will continue to promote the zipper lane and the vanpool program, and DTS will continue to promote its limited stop transit services, City Express! and Country Express!). 2) By using existing street capacity as a dedicated transitway, the Refined LPA will create incentives for the increased use of multiple-occupant vehicles along the alignment of the In-Town BRT.
Alternative with emphasis on servicing/improving access to Leeward areas, rather than getting to and from PUC	Leeward Oahu Transportation Management Association (LOTMA)	1) All of the alternatives include provisions for enhancing mobility within the Ewa area through increasing roadway connectivity and capacity, and enhanced transit service. All of the alternatives increase transit accessibility within, and to Kapolei/Ewa through the use of a "hub-and-spoke" bus network configuration. 2) All of the alternatives support the development of Kapolei as both a residential and employment center. 3) All of the alternatives would improve transit service along the Waianae coast. 4) Travel demand forecasting indicates that there will still be substantial travel between the PUC and other parts of the island, and within the PUC.

TABLE 2.6-1 (CONTINUED)
EISPN COMMENTS RELATING TO ALTERNATIVES

Comment	Commenter	Response
Segments of previously-indicated roadways for priority treatments do not appear to be included (e.g., Kamehameha Highway from Wahiawa to Radford Drive)	LOTMA	These measures are included in the No-Build, TSM, and Refined LPA Alternatives.
Alternative without Sand Island	LOTMA; Douglas Meller	The DEIS and SDEIS are both without the SISP. The SISP has become part of OMPO's TOP 2025 Plan.
Use double-decker buses	Hawaii Bicycling League	For reasons of operational efficiency and handicap accessibility, using longer articulated buses is a better way of increasing passenger capacity per vehicle than adding a second level of seating.
Why is an extension to Kahala not included?	Outdoor Circle; Life of the Land	The analysis of future travel demand and existing infrastructure capacity indicates that the major shortfall in transportation capacity extends from the PUC to the Ewa area.
Alternative focusing on safety measures to increase pedestrian, bicycle, disabled access. Such an alternative would increase demand for transit and other alternative transportation modes.	Life of the Land	The TSM and Refined LPA Alternatives are multimodal alternatives that increase pedestrian, bicycle and disabled access to transit and other alternative modes.
Do not create alternate freeway routes out of local streets	Hawaii Bicycling League	The highway only alternative was considered and rejected as discussed elsewhere in Section 2.6.1.
Enhanced Bus Alternative that increases both bus and auto efficiency	Life of the Land	The TSM and Refined LPA Alternatives enhance bus and auto efficiency to varying degrees.
Enhanced Bus Alternative that increases only bus efficiency, making buses more attractive than cars	Life of the Land	The TSM and Refined LPA Alternatives enhance bus and auto efficiency to varying degrees. The Refined LPA does more to increase bus and auto efficiency than the TSM Alternative. In the TSM Alternative, at some intersections, conditions for automobiles would be better than for transit vehicles.
Commuter-based Dedicated Bicycle Lane Alternative	Life of the Land	Both SDOT and DTS have developed master plans to enhance the network of bicycle facilities and increase bicycling as a serious transportation mode for some travel markets. Improvement of bicycle facilities is included in all of the alternatives.
Alternative eliminating some bus stops for more efficiency	Douglas Meller	Both the City Express! and Country Express! services are limited-stop bus services, and more limited stop services will be provided under the TSM and Refined LPA Alternatives.

TABLE 2.6-1 (CONTINUED)
EISPN COMMENTS RELATING TO ALTERNATIVES

Comment	Commenter	Response
Alternative promoting carpooling, and use of other unused equipment and capacity	Bruce Plasch	The TSM and Refined LPA Alternatives include incentives for HOV vehicles (carpooling), and other measures to enhance the operational efficiency of the existing transportation network including private sector transit services (using unused equipment and capacity).
Two separate, linked Express Bus systems: one to Honolulu and one to Kapolei, with circulator buses	Life of the Land	These features are included in the TSM and Refined LPA Alternatives.
Expansion of plans to elevated rail (1992 plan)	Life of the Land	A fully grade-separated transit system was considered but rejected, as discussed elsewhere in Section 2.6.1.
Employer Trip Reduction (ETR) plans	Life of the Land	These and other TDM measures are included in all of the alternatives.
Including express buses from outside PUC in a plan for PUC is beyond scope	Life of the Land	The PUC is so important in terms of islandwide trip generation and trip attraction that transportation planning for the PUC cannot be limited to only the PUC. Connections between the PUC and other parts of the island must also be considered.
Use of electric vehicles	Life of the Land	The Refined LPA includes the use of electric powered vehicles.
Consider a grade-separated light rail alternative.	Wendell Lum	A fully grade-separated transit system was considered and rejected since it was determined that the public was not in favor of an elevated transit system because of its high cost and its physical and visual impacts. This is discussed elsewhere in Section 2.6.1.
Do not operate the BRT on Richards Street.	Harbor Square Residents	The BRT alignment has been revised to travel on Alakea and Bishop Streets and will not travel on Richards Street between S. King Street and Nimitz Highway.
Include the proposed Farrington Highway transit corridor/BRT spur.	Gary H. Okino, Councilmember	A number of possible transit improvements are being considered for Waipahu. One of these would give priority to buses on Farrington Highway. Once a decision is reached on the type of improvement needed a separate environmental assessment will be undertaken.
Route the Kakaako-Mauka Branch continuing makai on South St. to Auahi St. turning left on Auahi and traveling straight on Auahi all the way to the Queen Street stub off Ala Moana.	Kakaako Improvement Association	The proposed Iwilei-Waikiki via Kakaako Makai Branch would provide convenient access to the "critical mass" area of Ala Moana Boulevard. The branch would operate along Ilalo Street, one block makai of Ala Moana Boulevard. Transit stops would be located at Coral Street and Ahui Street providing easy access to the businesses along Ala Moana Boulevard.
The Kakaako-UH Manoa branch should use Pensacola instead of Ward between S. King and Kapiolani.	Kakaako Improvement Association	One of the proposed refinements to the Refined LPA is to realign a portion of the Downtown-UH Manoa branch as suggested. The branch would continue along South King Street to Pensacola Street to Kapiolani.

Source: Parsons Brinckerhoff, June 2002.

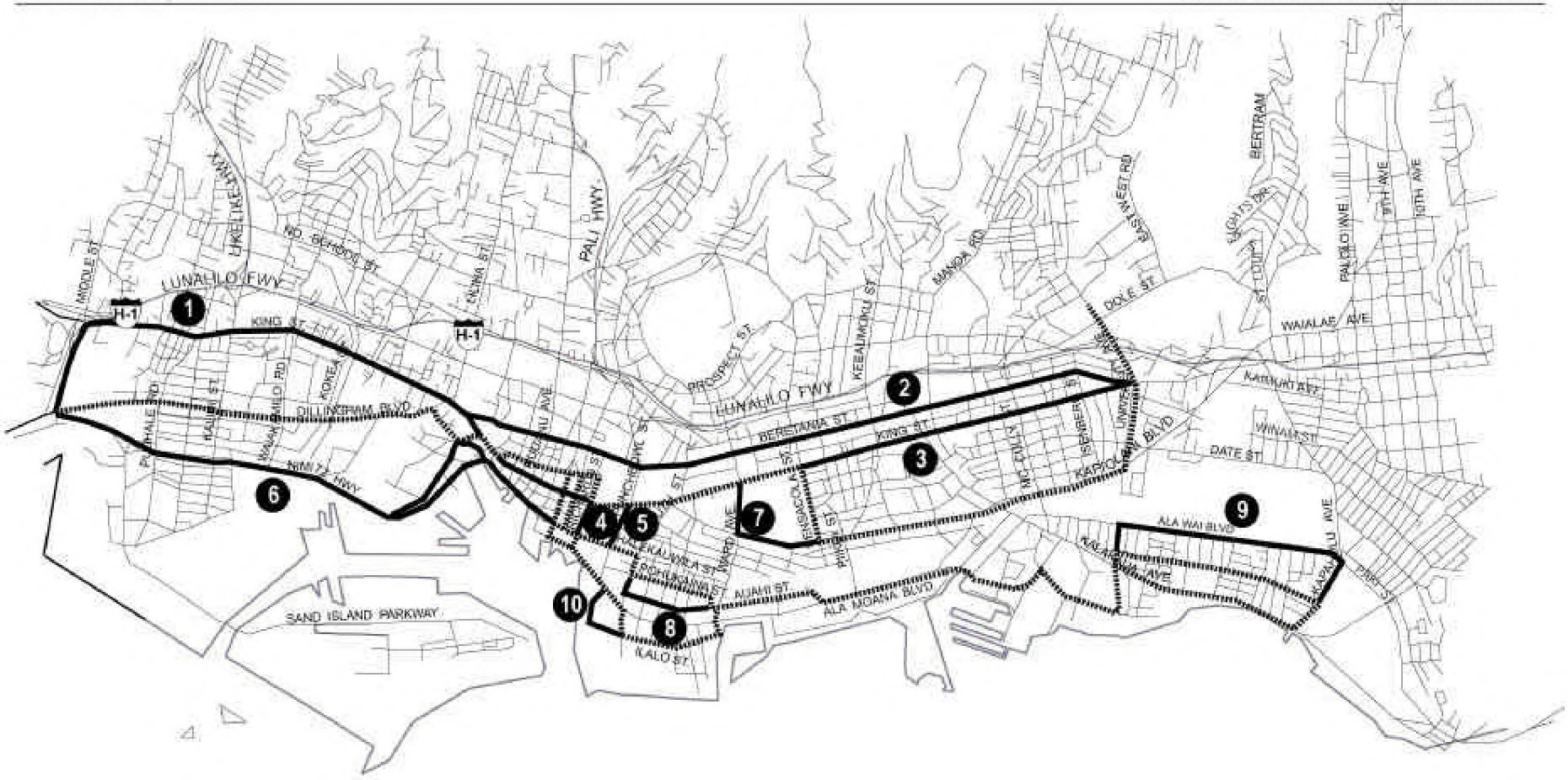
2.6.2 Alignment Screening for the In-Town BRT

Numerous alignment options were considered between the termini at Middle Street, UH-Manoa and Waikiki. These options were generated and screened by the project technical staff through an intensive process that included extensive community outreach, and meetings with stakeholders. Options were located in existing street rights-of-way, but varied in terms of which streets would be used for the In-Town BRT. During the screening process, alignment options were contrasted with each other based on their ability to meet project purposes and needs (Chapter 1), ridership potential, and available right-of-way. Alignment options were then further refined through additional public input and more detailed technical studies. (Note: The currently proposed alignment for the In-Town BRT is described in Section 2.2.3.)

1) In-Town BRT Alignment Options

The following discussion summarizes the major alignment options considered but rejected from further consideration. Figure 2.6-2 shows the location of these alignment options.

1. North King Street: Greater business disruptions, greater traffic impacts, and fewer land use development opportunities in comparison to Dillingham Boulevard.
2. South Beretania Street: Too far mauka to serve the heart of Downtown, less land use development potential in comparison to Kapiolani Boulevard, narrow at Koko Head end.
3. King Street, Koko Head of Pensacola Street: Extensive impact to on-street parking in an area with many small business frontages requiring auto access. Less growth shaping opportunity.
4. Richards Street: The Kakaako Mauka and Makai alignments were shifted from Richards Street to Alakea and Bishop Streets in response to local residents' concerns that the alignment on Richards Street would have impacts on traffic, driveway access, pedestrian safety, and residential ambience.
5. Punchbowl Street: Punchbowl Street was analyzed as an alternative alignment to the Alakea and Bishop Streets couplet. It was rejected due to the traffic impacts it would produce at the S. King/Punchbowl Streets intersection, and its failure to serve the Aloha Tower area.
6. Nimitz Highway Koko Head of junction with Sand Island Access Road: Nimitz Highway is more of a regional highway facility than Dillingham Boulevard with higher speed, more through traffic, more control of access, etc. An alignment on Dillingham Boulevard would much better serve Kalihi residents, businesses and institutions. There is more opportunity to attract ridership on Dillingham Boulevard than on Nimitz Highway because of the types of land uses.
7. Ward Avenue: The In-Town BRT UH-Manoa Branch alignment was shifted from Ward Avenue to Pensacola Street between S. King Street and Kapiolani Boulevard based upon input from the Downtown/Kakaako and Mid-Town/University Working Groups. The Pensacola Street alignment would better serve McKinley High School and Kaiser Honolulu Clinic, and result in lessened traffic impacts than on the already congested Ward Avenue.
8. Auahi Street: Shifting the Kakaako Mauka Branch alignment from Pohukaina Street to Auahi Street was analyzed as an alternative to adding the Kakaako Makai Branch. This was rejected since it did not serve either Kakaako Mauka or Kakaako Makai very well, with excessive walking distances to many travel generators.
9. Ala Wai Boulevard: With right-side loading, all passengers would be required to cross Ala Wai Boulevard going to-and-from the transit stop. Also, it is removed from the densest areas of trip generation in Waikiki, which are towards Kalakaua and Kuhio Avenues. Because of this an extra 3 to 6 minutes (walking or on a bus) would be added to 83 percent of the BRT passenger trips when traveling Ewa bound.
10. Channel Street: Until HCDA and SDOT, Harbors Division decide on access improvements to serve the proposed cruise ship terminal at Pier 2, the BRT will use Forrest Avenue. Channel Street is a possible alternative routing in the future.



LEGEND:

▪▪▪▪▪	Proposed In-Town BRT Alignment	5	Punchbowl Street
———	Alternatives Considered	6	Nimitz Highway
1	North King Street	7	Ward Avenue
2	South Beretania Street	8	Auahi Street
3	South King Street	9	Ala Wai Boulevard
4	Richards Street	10	Channel Street

SOURCE:
Parsons Brinckerhoff, May 2002.

N

Scale: 0 .5 1 mi

Alternate Alignments Considered For In-Town BRT

Figure 2.6-2

AR00014980

2) In-Town BRT Terminus of UH-Manoa Branch

Two options for the terminus of the In-Town BRT UH-Manoa Branch were considered in addition to the proposed terminus at Sinclair Circle, as follows:

- Lower Campus: There is no available right-of-way for a transit stop or turnaround due to the narrowness of Varsity Place. The proposed terminus at Sinclair Circle serves the main campus better. Therefore this option was dropped.
- Varney Circle: This option would bring the In-Town BRT onto campus. Distances from the transit stop to most destinations at UH-Manoa would be decreased in comparison to the Sinclair Circle terminus, however, penetrating the campus with a transitway is inconsistent with master plans for UH-Manoa. Also, there would be a significant added cost for virtually no ridership gain. Therefore this option was dropped.

3) Waikiki Alternative Alignments Considered

Because many comments on the SDEIS were related to alternative alignments considered in Waikiki, this summary has been added in the FEIS.

Five alternative alignments were considered in Waikiki: (a) Kalakaua/Ala Wai Loop, (b) Kalakaua/Kuhio Loop (the LPA), (c) Kuhio/Ala Wai Loop, (d) Two-Way BRT on Kuhio, and (e) Kapiolani/Kalakaua/Ena Road.

a. The Kalakaua/Ala Wai Loop was eliminated because it would force 80% of the BRT users to walk an extra 650 to 800 feet or ride around a loop (when going Ewa bound), which would add an additional three minutes to their trip; it also would not serve the greatest amount of ridership. All the Ala Wai Boulevard origins and destinations are on one side of the street only; therefore, all BRT users would have to cross Ala Wai Boulevard to get to and from the Ala Wai Boulevard BRT stops.

b. The Kalakaua/Kuhio Loop (the LPA), would serve just as many residents as the Kalakaua/Ala Wai Loop (6,200), but is much closer to the jobs in Waikiki (14,300 on Kalakaua, 10,500 on Kuhio compared to 1,500 on Ala Wai). This alignment is closer to the places local residents from outside Waikiki want to go in Waikiki as represented by the location of hotel rooms, restaurants and shopping (12,200 hotel rooms on Kalakaua, 4,200 on Kuhio compared to 800 on Ala Wai Boulevard). This alignment will still permit sidewalks to be widened on Kuhio Avenue and maintain automobile access plus passenger and freight loading/unloading for hotels and businesses on Kalakaua and Kuhio Avenues. This alternative was selected as part of the LPA.

c. The two-way Kuhio Alignment would have all the BRT stops on one street, which would be less confusing for infrequent users. It would however displace passenger and freight loading zones on Kuhio Avenue and/or restrict them to late night/early morning hours. The Kuhio Avenue level of service would result in twice the delay compared to the Kalakaua/Kuhio Loop. The bicycle route would be substandard (i.e. shared lanes less than 14 feet) and it would preclude sidewalk widening on Kuhio Avenue.

d. The Kuhio/Ala Wai Loop would be closer to Waikiki residents (4,500 housing units on Ala Wai compared to 1,700 housing units on Kalakaua). This alignment would also result in less vehicle and pedestrian interference on Ala Wai Boulevard than on Kalakaua Avenue. However, this alignment would be inconvenient for Waikiki employees (14,300 jobs along Kalakaua compared to 1,500 jobs along Ala Wai). This alignment would also be inconvenient for local residents from outside Waikiki who want to visit the hotels, restaurants and shops in Waikiki (12,200 hotel rooms on Kalakaua compared to 800 along Ala Wai). This alignment would also require that all BRT users cross Ala Wai Boulevard to get to and from the Ala Wai Boulevard BRT stops.

e. The alignment entering Waikiki via Kapiolani/Kalakaua/Ena Road versus Ala Moana/Kalia would consolidate a portion of the UH and Waikiki BRT branches. It was rejected because it would require a grade separation at the Kapiolani/Kalakaua/Atkinson intersections, require widening the Kalakaua Avenue bridge, and would not serve major generators on Ala Moana Boulevard near Hobron Lane.

2.6.3 Evaluation of Technologies for the In-Town Transit Segment

A large number of comments were made on technology. This section addresses those comments.

The purpose of this Section is to explain the basis for rejecting technologies not presently under consideration for the In-Town segment of the transit spine. Section 2.2.3 discusses the technology selection criteria. In summary, they are:

- Right-of-Way (ROW): Selected technologies must not require a new dedicated ROW or grade separation because urban Honolulu has insufficient space for a new dedicated ROW, and a grade-separated system was previously proposed but did not obtain the required City Council support due to the need for a tax increase. Suitable technologies must be able to operate at-grade on existing streets and highways. While vehicles may operate in exclusive lanes, the technology must permit at-grade cross traffic and pedestrian crossings.
- Line Capacity: Selected technologies must have the capacity to move more than 3,000 passengers per hour per direction because travel demand forecasting indicates that this is the approximate line haul requirement in 2025.
- Emissions and Noise: Air pollution emissions from selected technologies must be substantially lower than the 2004 EPA regulations provided in Table 2.2-9. Once adopted, the EPA's 2004 regulations will apply to all transit vehicles, including those powered by diesel engines. Noise emissions must not exceed those of a conventional light rail vehicle or trolley bus with electric propulsion.
- Service Proven: Selected technologies must either show sufficient maturity, or the technology must be in an advanced stage of development. If the technology is not yet "proven in revenue service", the risk associated with implementing a developmental technology must be carefully weighed.
- Affordability: Selected technologies must have system costs per unit length not exceeding that of an at-grade light-rail line of $60 million per mile.
- Safety: Selected technologies must meet local and national life/safety requirements.
- Accessibility: Selected technologies must comply with Americans with Disabilities Act (ADA) requirements.
- Visual Impact: Selected technologies must not require an overhead guideway or overhead contact system (overhead wires, or catenaries) for wayside propulsion that disrupts mauka-makai views.
- Flexibility: Selected technologies must have the capability to be re-routed around blockages, and not preempt parades and other activities along the alignment.
- Sense of Permanence: Selected technologies must represent a substantial government commitment to a specific alignment in order to evoke the desired land use response from land developers.

1) Overview of Technologies

These criteria were applied to the following conventional and emerging technologies, which are described in more detail in Product 1-6 Technical Paper Assessing the Capabilities of Selected Transit Technologies (July 1999), Product 1-9 In-Town BRT: Choosing the Final Technology (April 2000), and Product 4-3 Quarterly Report Summarizing Current Development Status and Operating Data for Candidate BRT Technologies, (June 2001).

- Rail Rapid Transit;
- Commuter Rail;
- Light Rail Transit (LRT);

- Monorail;
- Automated Guideway Transit (AGT), including Automated People Movers;
- MAGLEV (magnetically levitated vehicles);
- Light-Duty Bus;
- Standard Bus;
- Conventional Trolley Bus (with overhead wires—"catenary");
- Tram-on-Tires (large multi-articulated bus-type vehicle, some with catenaries);
- Articulated Diesel-Powered Bus;
- Articulated Hybrid-Powered Electric Bus; and
- Articulated Electric Bus Powered from Embedded Power Plates

Based on the screening criteria, the following technologies were eliminated as candidates for the In-Town transit segment:

- Light-Duty Bus: does not provide adequate capacity for the line haul requirement of the In-Town segment.
- Tram-on-Tires operated in driverless mode: not considered safe for operation at-grade in mixed traffic, hence requires dedicated ROW.
- Conventional Trolley Bus: requires overhead catenary wires with negative visual impact.
- Rail Rapid Transit: too expensive, and requires grade separation and exclusive ROW.
- Commuter Rail: too expensive, and requires exclusive ROW.
- Light Rail Transit: A detailed comparison of LRT technology with modern electric bus technology is provided later in this Section. While this technology was included in the initial alternatives, it was later rejected because of the relatively high costs associated with track work and utility relocation. LRT performance could be achieved with electric bus technology at a substantially reduced cost.
- AGT: requires grade separation and/or exclusive ROW.
- Monorail: requires grade separation and/or exclusive ROW.
- MAGLEV: too expensive, technology not sufficiently mature, and requires grade separation and exclusive ROW.
- Standard and/or Articulated Low-Floor Diesel-Powered Buses: would not meet project emission and noise goals for the In-Town transit system.

Propulsion systems using Compressed Natural Gas (CNG) were also eliminated due to the unavailability of and lack of infrastructure for natural gas on Oahu.

The technologies currently under consideration are: (1) rubber-tired, (2) low floor, (3) driver operated, (4) located at-grade, typically in a street lane, (5) able to be crossed by pedestrians and other traffic, (6) single articulated, (7) capable of operating under their own power for at least short distances to avoid disruptions in the transit lanes, and (8) electrically powered.

The requirement for electric power is driven by concerns about air and noise emissions. Electric power would be provided either from a touchable power strip embedded in the street (embedded plate technology), or on-board hybrid electric propulsion in which a diesel engine powers an alternator which produces electricity. The electricity is stored in a battery, and the power is distributed by cable to electric "hub motors", located on each wheel. In this manner, it is possible to eliminate the drive train, facilitating a "low floor" vehicle configuration.

The resulting candidate technology options for the In-Town BRT vehicle are:

- Articulated low-floor hybrid-powered electric bus; and
- Articulated low-floor electric bus powered by an embedded plate power collection system.

Since both of these are emerging technologies the impact analyses in the FEIS are designed to permit either option to be selected at a later date. The degree to which each technology would produce different impacts is discussed in the FEIS where there would be a difference.

Fuel cell technologies are also a possible technology for the In-Town System, but fuel cell buses will not be commercially available soon enough for application during the early stages of the Primary Corridor Transportation Project.

2) Detailed Comparison of Light Rail and Electric Bus Technologies

At the time the EISPN and NOI for the MIS/DEIS were issued, both LRT and BRT were under consideration for the Urban Core. Subsequent to the issuance of the EISPN and NOI, and the scoping process, technical analysis led to a decision to drop the LRT option. Analysis showed that BRT technology could provide the service characteristics required in the Urban Core at a much lower cost than LRT. Moreover, considering the specific conditions and goals of this project, BRT was determined to be superior to LRT in critical ways – so much so that further study of LRT was deemed to be unjustified. The following discussion amplifies the comparison between LRT and BRT technologies.

Similarities

a) Performance: Speed, Capacity and Noise

Both LRT and BRT technologies would have similar performance characteristics, especially when applied to the central, highly urbanized section of the Urban Core. At in-town speeds, both would have similar acceleration rates; and nominal emergency braking rates would also be similar.

While LRT technology could be configured to provide far greater peak line capacity through the use of multi-vehicle trains, ridership estimates for the corridor indicate that both LRT and BRT technologies would meet the capacity needs for the foreseeable future.

From the perspective of noise and vibration impacts, especially at the proposed operating speed in the range of 35 mph or less, no significant differences would exist between the two technologies. Speeds in the range of 35 to 40 mph represent a "break point," above which steel wheels on steel rails would be somewhat quieter than comparable electric-powered rubber-tired vehicles, and below which slower speeds would slightly favor rubber tires over steel wheels.

The noise differences are not large, however, and vehicles of both technologies would run more quietly than diesel buses. In sharp curves, rubber tires have an advantage because wheel squeal could occur with steel-wheeled vehicles.

b) Sense of "Permanence"

The major transit investment should not only be compatible with, but also reinforce, the City's growth shaping goals. To achieve this, the transit system should be seen as a permanent, form-giving component of the mobility system that serves the Urban Core.

For the transit system to achieve a sense of permanence, it should have formal transit stops, be fixed in a permanent alignment, and be designed to be compatible with the varied communities through which it passes. If designed properly, a transit system that would use either steel-wheeled or electric-powered rubber-tired vehicles could achieve this objective.

c) Alignment Flexibility

Both technologies would have the ability to traverse relatively sharp curves and steep grades. BRT vehicles could make tighter turns than LRT vehicles, however based upon the proposed alignment in the Urban Core, no apparent constraints exist which would strongly favor one technology over the other.

d) Exclusive Street-Level Alignment

The most important performance features both technologies could achieve would be higher average speeds, higher frequency service, greater ultimate capacity, and far more reliable service than buses or streetcars in mixed traffic. This would be accomplished by providing, as much as possible, an exclusive lane, or where this is not possible semi-exclusive lane, for the transit vehicles in both directions of travel.

e) Power Source

Both the LRT and BRT technologies recommended for the In-Town system would be powered by electric motors. LRT technologies require wayside power delivery systems. While the traditional form of wayside power supply for an LRT system is overhead wires, the recommended wayside power distribution system would be a relatively new in-street buried electric power distribution and collection technology referred to as "embedded plate". Embedded plate technology (EPT) could also be used for the BRT vehicles. Hybrid diesel/electric buses, which are also under consideration, do not require a wayside power delivery system, since the power is generated on-board.

f) Achieving Positive Separation From Traffic

Both vehicle technologies could operate in mixed traffic or could be configured to operate in exclusive and semi-exclusive lanes so that automobiles, trucks, bikes and buses only cross the lanes at traffic signal-controlled intersections.

If mixed traffic were to be allowed with through and turning automobiles in the transit lane, the operation would become very slow and unpredictable – analogous to a streetcar or conventional bus. The travel time, ridership, and urban design advantages would be reduced. Therefore, to the maximum extent possible, both technologies should be separated from adjacent lanes by positive delineation, consisting of raised markers and colored pavement.

g) Level Boarding

Both technologies would use either partial or 100 percent low-floor vehicle designs, which speeds ingress and egress for all passengers, and facilitates accessibility for physically disabled individuals. With floor heights of approximately 13 inches, these vehicles would allow the system to use stations with relatively low, unobtrusive platforms, and still provide level passenger loading without steps.

Differences

In ways just described, both LRT and BRT technologies could meet the requirements for the In-Town system, and could do so attractively and efficiently. Important differences, however, exist which are described next.

a) Station Interface and Accessibility

An advantage at stations would exist if vehicles operating in the exclusive section of the system were guided.

Through positive guidance, it is possible to control the interface between a LRT vehicle and the station platform such that the platform-to-vehicle floor gap (both horizontal and vertical) would be within the limits specified by the Americans with Disabilities Act (ADA) for wheelchair accessibility.

For LRT vehicles, level boarding would be achieved from the guidance provided by steel rails embedded in the street and vehicle suspension characteristics designed to meet the gap requirements.

Conceptually, a similar capability could be obtained for BRT vehicles using a guided technology.

With non-guided vehicles, it is possible to have the vehicle operator steer the bus to a berthing position and equip the vehicle with a relatively simple on-board ramp which would deploy to bridge the remaining gap. This is successfully done on a number of existing transit systems.

b) Operating Labor/Training of Vehicle Operators

Higher-capacity vehicles and the ability to form trains would give LRT systems a potential operating labor advantage over BRT systems because one vehicle operator could be responsible for far more passengers.

Travel demand forecasts for this project, however, showed that entraining LRT vehicles would not be necessary, even during peak periods.

c) Operating Flexibility

A major advantage of the BRT technologies under consideration is their ability to leave the designated BRT lanes to go around blockages in the lane (e.g., underground utility work, accidents, etc.) and to be re-routed during parades or other special events. The steel-wheeled LRT vehicles do not have this operational flexibility.

d) Ridership Difference

Because the standard LRT vehicles can carry 30 to 40 percent more passengers per vehicle than articulated electric buses, even when operating as single units, fewer vehicles are needed to serve the same level of ridership.

While positive from an operating cost standpoint, it results in less frequent service being needed with LRT vs. BRT systems. The service frequency difference resulted in approximately 20 percent fewer riders projected to use the LRT than the BRT system.

e) Capital Costs

The most significant cost differentiators are the trackwork for the LRT system, and the transit vehicles.

Embedded trackwork for an LRT system is estimated to add substantial cost compared to a BRT system which does not require tracks (in the range of $9-13 million more per mile). Over approximately 12.8 miles, the cost differential would be $115-166 million.

Vehicle cost differences while not straightforward to estimate could be as much as $2 million per vehicle. Electric buses are much less expensive than LRT vehicles. Even considering that fewer LRT vehicles would be required than electric buses (due to the per vehicle capacity differential) there would still be a substantial total cost savings in rolling stock with electric buses.

Potential BRT vehicles generally require replacement at the standard replacement interval for buses of 12 to 15 years. In contrast, LRT vehicles would require replacement at the standard LRT interval of 25 to 30 years. The longer useful life of the LRT vehicles would over time help to offset the greater initial cost for LRT vehicles.

The total BRT system construction cost savings assuming the embedded plate technology would be on the order of 35 percent, compared to a comparable LRT system. The differences are due to trackwork, life cycle vehicle costs and other fixed facility savings. The cost difference would be even greater if the comparison was between LRT and a BRT system using hybrid diesel/electric vehicles rather than EPT.

Evaluation of BRT and LRT Technologies

In the following comparison of LRT versus BRT, the physical alignment and station locations were assumed to be the same for both technologies. The only differences between them would be the technology used and the associated operating and performance characteristics (i.e. vehicle capacities, frequency of service, etc.).

a) Criterion One: Improve Mobility

Ridership would be lower on the LRT than on the BRT system because of the difference in the frequency of service. Because of the larger size of standard LRT vehicles, the headways on an LRT system would be longer to serve the same number of passengers. Because of the less frequent service on an LRT system, some passengers would find an LRT system less attractive than a BRT system with shorter headways. Therefore, ridership projections for the BRT option were forecast to be almost 20 percent greater than on the LRT alternative because of the more frequent service.

b) Criterion Two: Growth-Shaping

Both LRT and BRT systems in a transitway with similar transit stops would impart a sense of “permanence” to help catalyze transit-oriented development along the alignment. The perception of “permanence” (a permanent government commitment to a particular alignment) is likely to be greater with an LRT system because of the increased level of fixed investment in the alignment (e.g., investment in trackwork). Therefore, the land use investments may be somewhat greater from an LRT system than a BRT system.

c) Criterion Three: Quality of Life and Livability

Quality of life was evaluated from the perspective of the amount of noise and air pollution, which would be experienced by people along the In-Town transit alignment. Livability was assessed from the standpoint of visual orientation, streetscape, and scale; in other words, a sense of place.

Noise Levels

The passby noise of an LRT vehicle operating at 30 mph at a distance of 50 feet is 78 dBA in comparison to a BRT vehicle, which has a passby level of 75 dBA. This is a difference of 3 dBA, which is a “perceptible” to “noticeable” change in noise level. Therefore, the passby noise from an electric bus would be somewhat quieter than the passby noise from an LRT vehicle. Wheel squeal noise for LRT due to steel wheels running on steel rails in areas with tight turning radii could generate noise. Vibration impacts could also occur with the LRT technology, although these impacts would be mitigated. Electric bus technology would have lower noise levels than LRT technology due to the use of rubber tires. Vibration impacts would also be less.

Air Quality

LRT vehicles and electric buses powered by embedded plate technology would emit no air pollutants at street level. Hybrid diesel/electric buses would emit minimal levels of air pollutants because the diesel generator would be operating at peak efficiency from an environmental perspective.

d) Criterion Four: Capital and Operating Costs

Capital costs for the In-Town BRT system would be 35 percent less than with an LRT system on the same alignment. This cost difference even reflects the need to replace BRT vehicles on a 12-15 year replacement cycle while LRT vehicles have a 30-year useful life. The added cost for the LRT option reflects the high costs of trackwork, yards and shops. Vehicle costs would actually be somewhat less for the LRT option when the less frequent replacement cycle and smaller fleet requirements are taken into account.

Annual systemwide transit operating and maintenance costs were also estimated for each alternative for the forecast year 2025. Operating and maintenance costs would be roughly the same for the LRT and BRT options, even though the LRT would require specially trained and dedicated mechanics and operators.

e) Criterion Five: Cost-Effectiveness Analysis

Cost-effectiveness analysis compares the ridership gains with the costs for each alternative. This analysis has become an important part of the federal procedures for analyzing major transit projects. A project's cost-effectiveness index (CEI) is determined by a formula that measures the project's net cost per new passenger that would be attracted to a build alternative relative to the TSM Alternative. Therefore, when two project alternatives are compared in terms of their CEIs, the one with the lower index represents the more cost-effective of the two.

The CEI for the BRT option is very competitive compared to other national projects competing for funding. The cost per new rider gained with the LRT would be 2.8 times as costly as with the BRT. As a result, the CEI for the LRT option would be substantially less competitive in competing for FTA New Starts funds than the BRT Alternative.

f) Summary of Evaluation Findings

The BRT option would be more advantageous than LRT in meeting the islandwide and in-town mobility needs while supporting all of the livability goals. It has the highest ridership. The cost-effectiveness of the BRT option would be competitive with projects currently recommended for funding by FTA. The LRT option would be less competitive. Advanced bus technologies (embedded plate and hybrid diesel/electric) offer the quality of life benefits (e.g., reduced or no air and noise emission levels) previously associated only with LRT technology. The BRT also offers operating flexibility around blockages and special events that is not possible with LRT. The BRT system provides the features needed for Honolulu at substantially lower cost than an LRT system. Therefore, the LRT option was eliminated because most of the performance of an LRT system could be achieved at a substantial cost savings with low-floor, electric-powered, articulated bus technology.

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CHAPTER 3 AFFECTED ENVIRONMENT

CHAPTER OVERVIEW AND ORGANIZATION

This chapter describes the existing social and natural environmental conditions in the primary transportation corridor. The existing conditions and the affected environment are the same for both the Refined Locally Preferred Alternative (LPA) and the Initial Operating Segment (IOS). The IOS is a subset of the Refined LPA, covering only the length from Iwilei to Waikiki. Therefore, this chapter does not have a separate section specifically for the IOS.

It is a requirement of the State Environmental Impact Statement (EIS) Law that current conditions in the area potentially affected by a project be described in order to benchmark them. Only after the existing conditions are understood may an assessment be made of the impacts that the No-Build, Transportation System Management (TSM) and Refined Locally Preferred Alternatives could create. Chapter 4 discusses the impacts of these alternatives on the transportation system; Chapter 5 discusses the impacts of these alternatives on other aspects of the environment.

The existing conditions information has been revised to reflect the most current data available since the Major Investment Study/Draft EIS (MIS/DEIS) and Supplemental Draft EIS (SDEIS) were published and circulated for public and agency review and comment. It should be noted that not all 2000 Census data was available at the time this Final EIS was compiled.

Because of the size and diversity of the primary transportation corridor, this section focuses on parameters that:

- are most pertinent to consider for a transportation project;
- were identified for particular attention through the scoping process, comments received on the MIS/DEIS and SDEIS, and other public involvement activities;
- represent particularly sensitive resources;
- would be affected differently by the alternatives (and therefore would reconfirm selecting the Refined BRT Alternative as the Refined Locally Preferred Alternative (Refined LPA)
- are required by law to be assessed.

Disciplines addressed in this Chapter include:

- Land Use and Economic Activity
- Transportation
- Neighborhoods
- Visual and Aesthetic Conditions
- Air Quality
- Noise and Vibration
- Ecosystems
- Water Resources
- Hazardous Materials
- Historic and Archaeological Resources
- Parklands

3.1 LAND USE AND ECONOMIC ACTIVITY

3.1.1 Regional Summary

Oahu is 44 miles long and 30 miles wide, containing almost 380,000 acres of land surrounded by a coastline of 112 miles. Because much of the land is mountainous, only about 54 percent of the total area is potentially developable (see Figure 3.1-1). The island is the most populous in the Hawaiian Archipelago, and comprises the City and County of Honolulu. Based on State land use classifications, 26 percent of Oahu is classified as Urban, 34 percent is classified as Agriculture, and the remaining 40 percent is classified as Conservation.

3.1.2 General Study Area

The primary transportation corridor is by far the most urban region on Oahu and in the State, supporting over 57 percent of the island's population and over 80 percent of all employment. The City and County of Honolulu divides Oahu into eight planning areas, each with specific land use objectives and development requirements as discussed below. Figure 3.1-2 illustrates the planning areas.

1) Primary Urban Center (PUC) Planning Area

The PUC extends from Pearl City at the Ewa end to Waialae-Kahala at the Koko Head end, and is bounded on the north by the Koolau Mountain Range and on the south by the coastline (see Figure 3.1-2). The 2000 Annual Report on the Status of Land Use on Oahu (May 2001) states that approximately 16 percent of the 65,000 acres within the PUC is designated for residential use; four percent is designated for commercial/industrial use; 12 percent is designated for public facilities, including parks; 53 percent is designated for preservation; and 13 percent is used by the military.

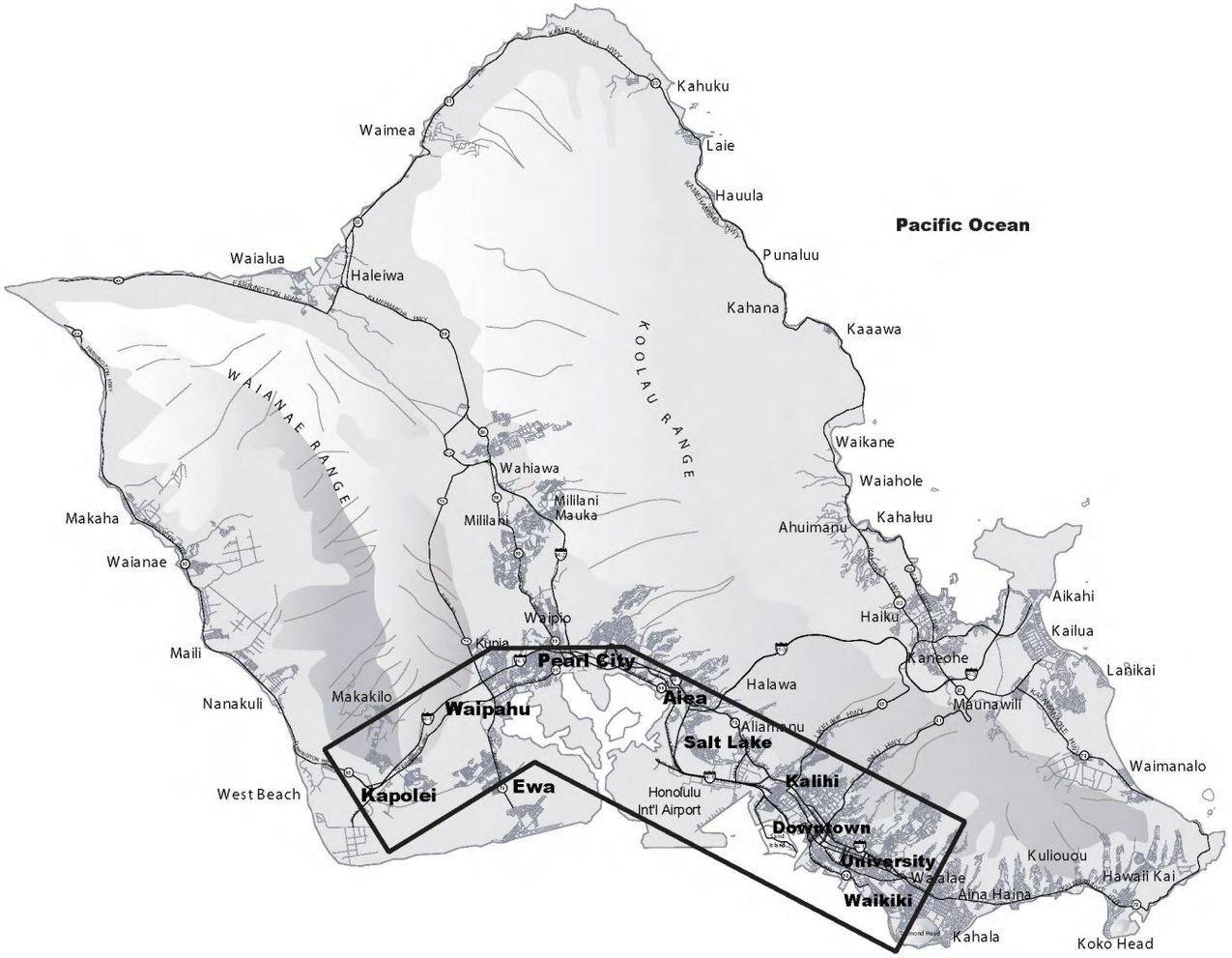
The PUC is by far the most populated planning area. In 2000, its resident population was 426,000, or close to 49 percent of the island total. Throughout the 1980s and 90s, population in other parts of the island increased at a faster rate than in the PUC. This is due to a substantial increase of relatively affordable housing in the Ewa and Central Oahu planning areas during this period, shifting population growth from the PUC to these outlying regions.

The housing stock of this area is diverse, varying from single-family dwellings to high-rise apartment buildings. The density of units in the PUC is higher than in any of the other planning areas.

2) Ewa and Central Oahu Planning Areas

The southern portion of the Central Oahu planning area is within the primary transportation corridor, including Waipahu Town and the surrounding Kunia, Waikele and Waipio communities. The Central Oahu planning area contains the wide fertile plateau between the Waianae and Koolau Ranges previously in extensive agricultural use.

Much of the Ewa planning area is within the primary transportation corridor. Much of this planning area is a low elevation plain that extends from sea level at the coastline to an elevation of only about 100 feet three to five miles inland. Like Central Oahu, the Ewa region was once one of Oahu's prime sugarcane cultivation areas, but is now experiencing urban growth as the State, and City and County of Honolulu support development of the region as the "secondary urban center" of Oahu. Diversified agricultural activities, as well as park construction have also begun on certain abandoned cane fields.



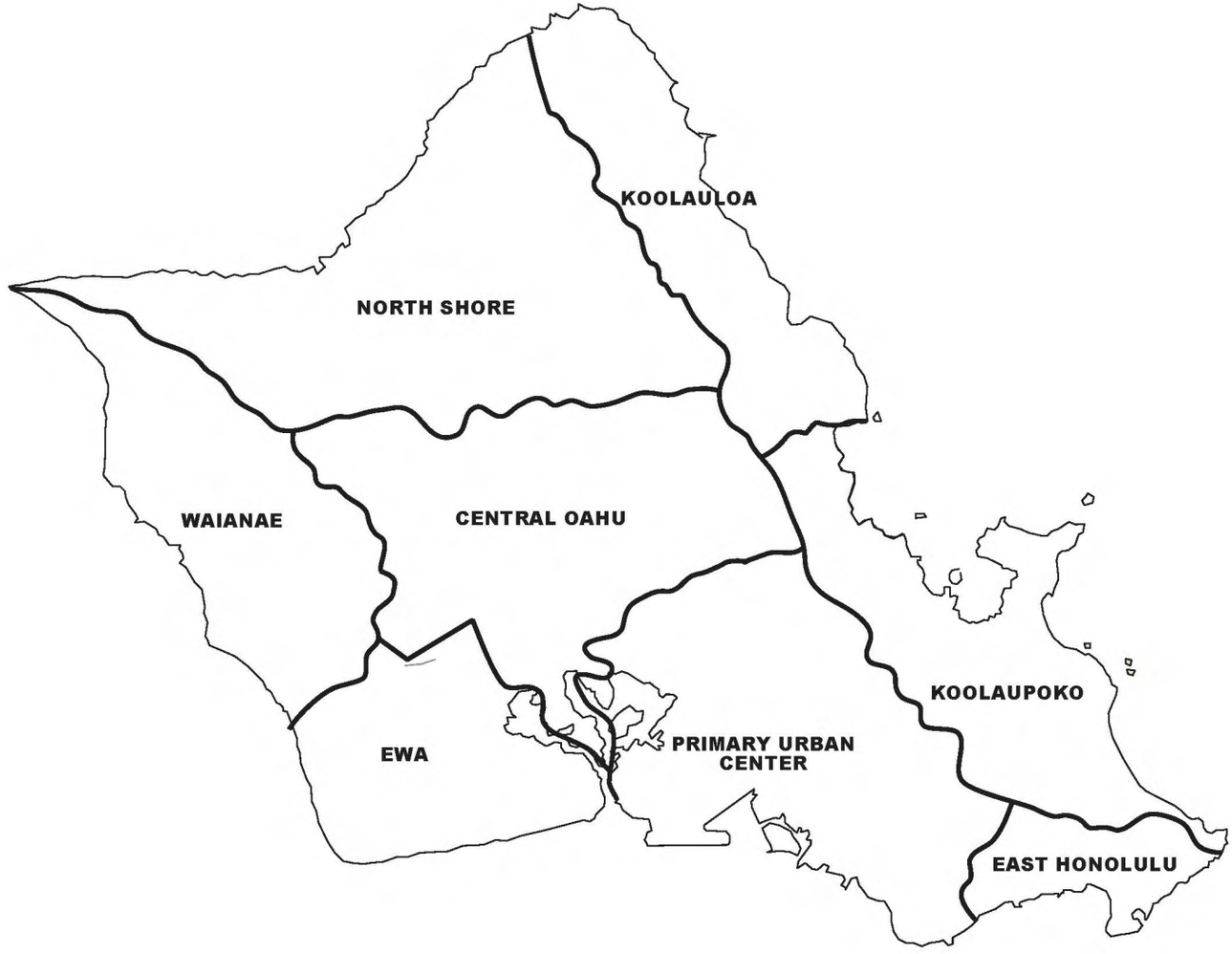
SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

N

Scale: 0 2 4 mi

Primary Transportation Corridor Study Area

Figure 3.1-1



SOURCES:
ESRI Atlas GIS v4.0 1998; City and County of Honolulu, Department of Planning & Permitting.

N

Scale: 0 2 4 mi

Scale: 0 4 8 km

Development Plan Areas

Figure 3.1-2

3.1.3 Corridor Land Uses

1) PUC Planning Area

The PUC features the most diverse land uses on the island (see Figures 3.1-3A through 3.1-3C). Developable areas in the valleys and on the Koolau ridges support primarily single-family residential uses, such as the neighborhoods of Manoa, Pacific Heights, Nuuanu, Kalihi Valley, Halawa Heights, Newtown, Pearl City Uplands, and Pacific Palisades. Multi-family residential areas are predominantly in Waikiki, McCully-Moiliili, Kaheka, Makiki- Punchbowl, upper Downtown, Kalihi-Palama, Salt Lake, and Pearlridge.

Industrial uses are mainly located in Kakaako, Iwilei, Kalihi-Kalihi Kai, Sand Island, Mapunapuna, the Airport area, Pearl Harbor, and Halawa and Waiawa Valleys.

The PUC remains the center of government, business, economic, and cultural activities in the State. The PUC contains most of the major employment centers on the island, such as the Honolulu International Airport, and Sand Island and Mapunapuna industrial districts; Downtown Honolulu including the adjacent Capitol District; and Waikiki. In 2000, the PUC contained about 380,000 jobs, or 78 percent of the total civilian employment on the island.

The PUC also contains a substantial military presence, mostly in the western portion. Pearl Harbor Naval Complex, Hickam Air Force Base, Tripler Army Medical Center, and Fort Shafter are the main military installations. Combined employment at these installations is 22,944 (State Databook, 2001).

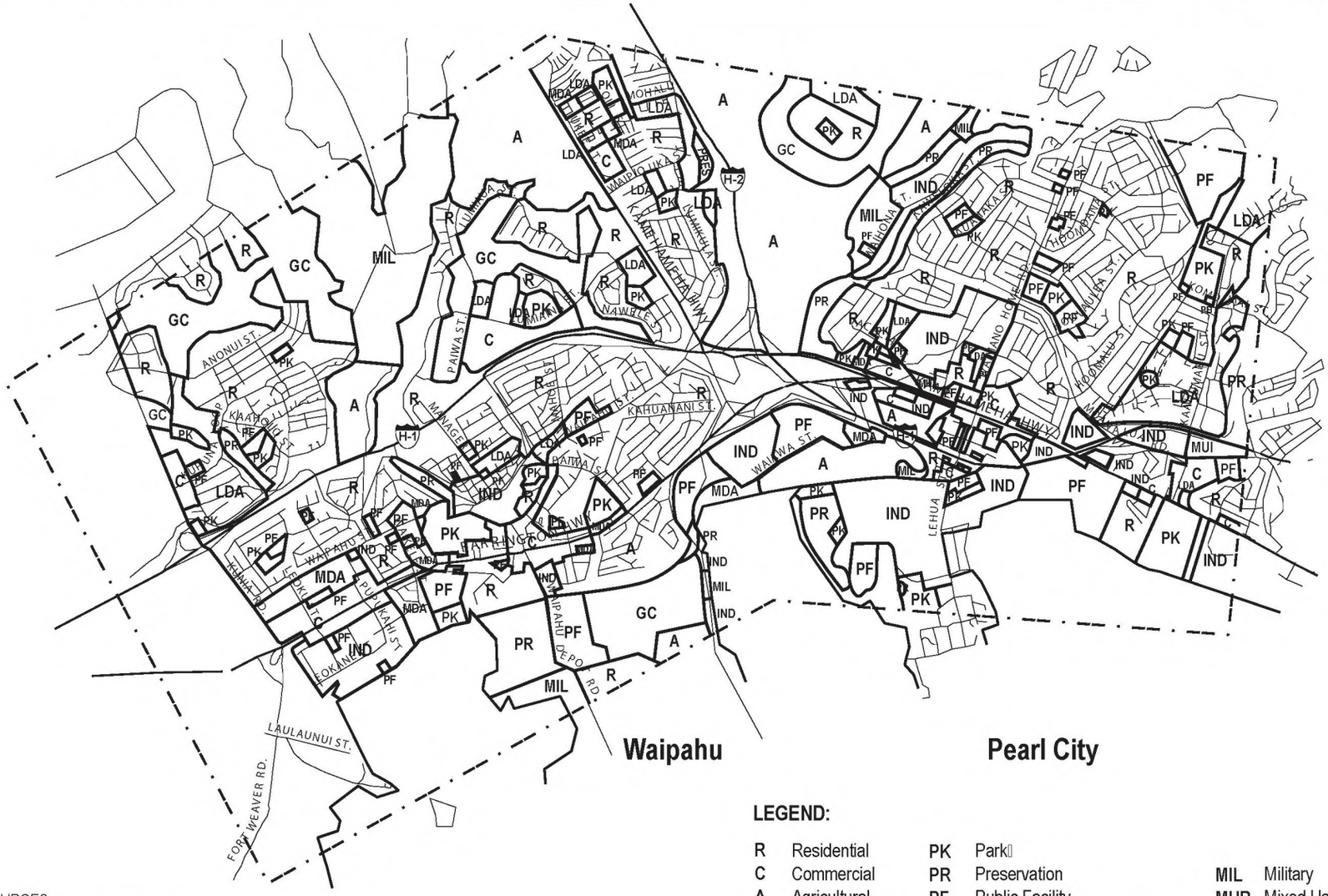
Office, retail, service, and government centers are located primarily between Kalihi-Palama and Kaimuki, an area constituting the urban core of Honolulu ("Urban Core"). The Urban Core is extremely diverse in terms of land uses: low to high-density residential; small to large-scale commercial and industrial establishments; and recreational facilities ranging from small neighborhood parks to large regional parks, such as Ala Moana and Kapiolani Parks. This area contains Chinatown, the island's central business district (Downtown Honolulu), the State Capitol, City Hall (Honolulu Hale), and the State's largest visitor accommodation and activities center, Waikiki. A sizable commercial area is located on the western side of the PUC, between Aiea and Pearl City.

2) Central Oahu Planning Area

Central Oahu planning area land uses include prime agricultural lands, military installations, and major residential communities. Over the last two decades, the land use focus of Central Oahu has been residential development, although there is a small high technology park near Mililani. Most of the new housing has been developed in the master planned communities of Mililani, Waipio, Waikele and Kunia.

Waipio, Waikele and Kunia are relatively new suburban communities of single-family residences and low-density townhouses. All three contain large commercial shopping centers: Waipio Shopping Center, Royal Kunia Shopping Center, Costco and Waikele Center/Waikele Premium Outlets. The latter three draw shoppers from other parts of the island and tourists.

Waipahu is one of Central Oahu's oldest communities, generally bounded by Waiawa Interchange to the east, Pearl Harbor West Loch to the south, the H-1 Freeway to the north and Fort Weaver Road to the west. While originally a set of plantation villages built around the Waipahu Sugar Mill and segregated by ethnicity, since the end of the Second World War, Waipahu has transformed into suburban and commercial land uses. Today, the northern part of Waipahu is predominantly single-family residential, and the southern portion along Farrington Highway is mixed-use commercial, light industrial and low- to medium-density apartments. The commercial uses consist of strip malls and car dealerships along the highway.


Waipahu
Pearl City
H-1
H-2
KAMEHAMEHA HWY.
KAHUANANI ST.
WAIAWA ST.
PAIWA ST.
MANANA ST.
KAAPOLI ST.
ANONUI ST.
LUMIKANA ST.
NAWELEWELE ST.
MOOHALII ST.
WAIPIO UKA ST.
KAMEHAMEHA HWY.
KAMANAIA ST.
KAMEHAMEHA HWY.
KAAHUMANU ST.
KUAMOO ST.
HOOMALEKE ST.
HOOMALEKE ST.
KAUHALE ST.
KAMEHAMEHA HWY.
KAMEHAMEHA HWY.
KAMEHAMEHA HWY

LEGEND:

R	Residential	PK	Park	MIL	Military
C	Commercial	PR	Preservation	MUR	Mixed Use Residential
A	Agricultural	PF	Public Facility	MUC	Mixed Use Commercial
GC	Golf Course	LDA	Low Density Apartments	MUI	Mixed Use Industrial
IND	Industrial	MDA	Medium Density Apartments		

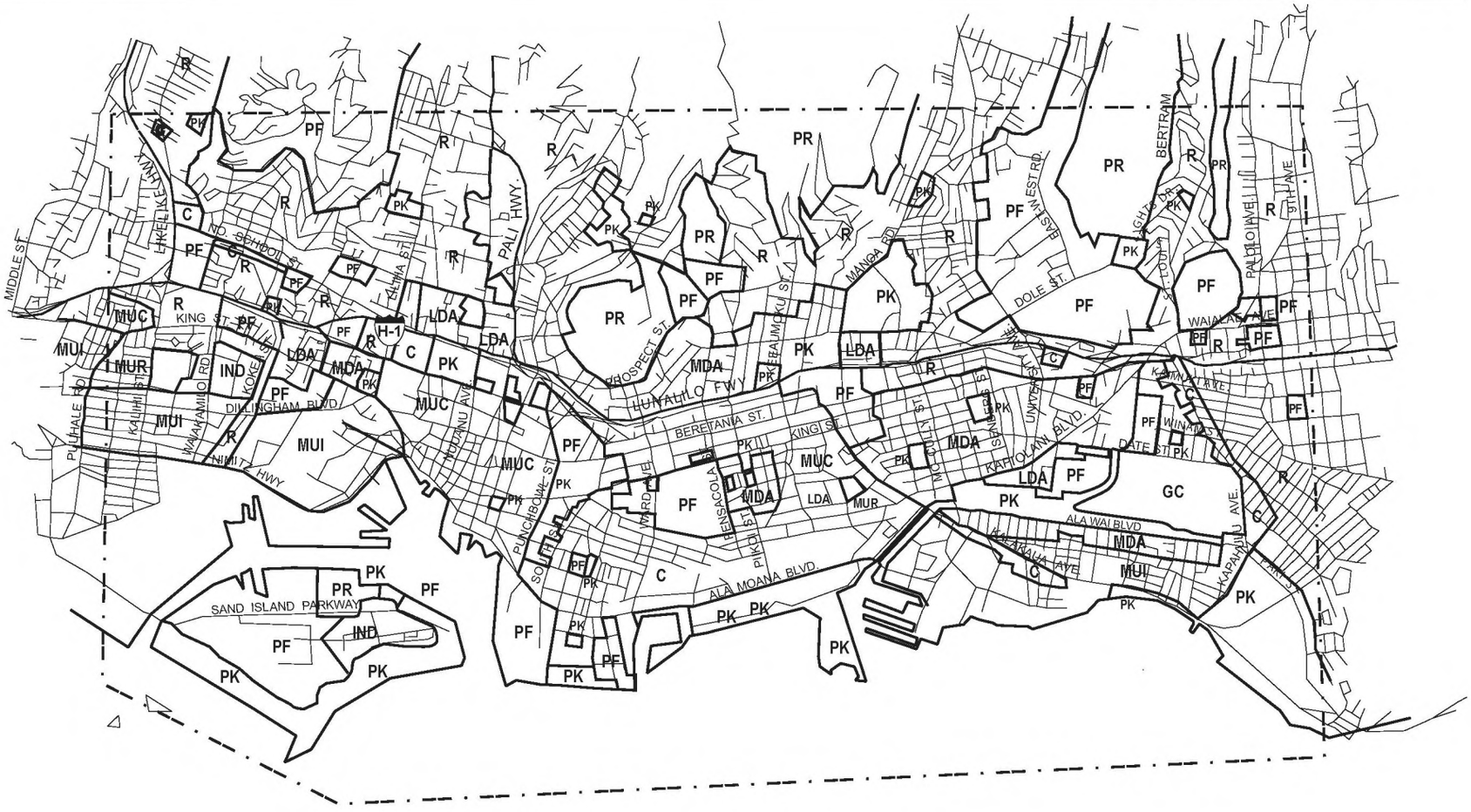
SOURCES:
City and County of Honolulu, October 1998; Parsons Brinckerhoff,
Primary Corridor Transportation Project, Major Investment Study/ Draft Environmental Impact Statement, August 2000.

N

Scale: 0 .25 .50 mi

Development Plan Land Uses: Aiea - Fort Shafter

Figure 3.1-3B



LEGEND:

R	Residential	PK	Park	MIL	Military
C	Commercial	PR	Preservation	MUR	Mixed Use Residential
A	Agricultural	PF	Public Facility	MUC	Mixed Use Commercial
GC	Golf Course	LDA	Low Density Apartments	MUI	Mixed Use Industrial
IND	Industrial	MDA	Medium Density Apartments		

SOURCES:
City and County of Honolulu, October 1998; Parsons Brinckerhoff,
Primary Corridor Transportation Project, Major Investment Study/ Draft Environmental Impact Statement, August 2000.

Scale: 0 .25 .50 mi

Development Plan Land Uses: Kalihi - University

Figure 3.1-3C

Mililani has a population of approximately 90,000 residents as well as a regional shopping center and several community shopping centers. It is immediately outside the primary transportation corridor. However, most of the workers who live there are commuters who use the corridor on a daily basis.

3) Ewa Planning Area

Ewa has experienced rapid residential growth within new master planned developments. The oldest community in the region is Ewa Villages, which was built in the 1890s and consisted of eight villages housing immigrant plantation workers, segregated by national origin. Ewa Villages is currently undergoing redevelopment to provide newer housing and commercial uses. Ewa Beach, Honokai Hale, and Makakilo were developed from the 1950s through the 1970s, and all are still expanding. Newer communities include West Loch, Ewa Gentry, Ocean Pointe, and the Villages of Kapolei. Newer communities consist mostly of single-family residences or low-density townhouses.

The City of Kapolei, located in the western portion of the Ewa Planning Area, is being developed as the "second city" of Oahu. Existing land uses include a community shopping center, a 16-screen movie theater complex, a 73-acre regional park, an office complex, a bank office building, and a State office building. A State Public Library, a City and County Civic Center, and a police station were recently opened. Other employment areas in Ewa include Kalaeloa (formerly Barbers Point Naval Air Station), Campbell Industrial Park, Kapolei Business Park and Ko Olina resort. Campbell Industrial Park, located just west of the primary transportation corridor, contains approximately 300 businesses on 1,367 acres, including the State's two petroleum refineries, large warehouses and distribution facilities. Ko Olina, also west of the corridor, is a 1,000-acre resort that includes a premier hotel, townhouses, four sandy lagoons, a golf course and clubhouse, and a marina. Additional housing is under construction or being planned, and substantial further growth for Ko Olina is planned.

Agriculture in the Ewa planning area continues despite urban encroachment. Since the end of sugarcane cultivation in the early-1990s, small-scale leased farms cultivating diversified agricultural crops have begun to operate in old sugarcane fields between Waipahu and the Villages of Kapolei.

3.1.4 Proposed Development Projects

The City of Kapolei, the area from Pearl City to Aloha Stadium, and the area from Middle Street to Kapahulu and Waialae Avenues (the "Urban Core") contain many development projects in the planning or construction phases. Table 3.1-1 shows proposed development projects in the primary transportation corridor. As they are implemented, these projects will influence adjacent land uses.

3.1.5 Plans and Policies

1) State Plans, Policies and Controls

Land Use Plans and Controls

Hawaii State Plan

The Hawaii State Plan (June 1991) consists of comprehensive goals, objectives, policies and priorities in all areas of government functions. These functions include the protection of the physical environment, the provision of public facilities, and the promotion and assistance of socio-cultural advancement.

State Land Use Commission

Chapter 205, Hawaii Revised Statutes (HRS), involving the State Land Use Commission (SLUC), regulates land use by establishing four categories: Urban, Agriculture, Conservation, and Rural. The intent of the land classification is to accommodate growth while retaining important natural resources. Each district has specific land use objectives and development constraints.

TABLE 3.1-1
PROPOSED DEVELOPMENT PROJECTS WITHIN THE PRIMARY TRANSPORTATION CORRIDOR

Ewa
- Kalaeloa/Barbers Point Harbor expansion (ongoing)
- Kapolei Business Park (ongoing)
- City of Kapolei expansion (office buildings, civic center, commercial, etc.) (ongoing)
- Redevelopment of Barbers Point Naval Air Station (general aviation airport, regional park, etc.)
- Build out of the Villages of Kapolei (ongoing)
- East Kapolei
- Ocean Pointe (formerly Ewa Marina) (ongoing)
- Build-out of Ewa Gentry (ongoing)
- Build-out of Ewa Villages (ongoing)

Central Oahu
- Redevelopment of Waipahu Sugar Mill site (ongoing)
- Build-out of Royal Kunia (ongoing)
- Build-out of Waikele (ongoing)
- Waiawa by Gentry

Pearl Harbor
- Manana redevelopment, including Pearl City Junction (ongoing)
- Retail expansion of Pearl Highlands Center
- Ford Island redevelopment
- Aiea Sugar Mill site redevelopment
- Kamehameha Drive-In Theater site reuse
- Redevelopment makai of Kamehameha Highway between Waimalu and Kalauao Streams

Honolulu (Urban Core)
- Various high-rise housing projects in Waikiki
- King Kalakaua Plaza, Phase II (commercial, Waikiki)
- Various senior housing projects in McCully/Moiliili
- Entertainment complex at Ala Moana Center
- Victoria Ward shopping, entertainment, and housing (ongoing)
- Various high-rise housing projects in Kakaako
- Kakaako Makai redevelopment
- Various housing projects in the Punchbowl area
- Bank of Hawaii office tower
- Aloha Tower complex expansion

Source: City and County of Honolulu Department of Planning and Permitting, 2000.

Most of the lands within the primary transportation corridor are Urban. However, part of the Ewa planning area within the corridor has an Agriculture designation. On Oahu, the City and County of Honolulu administers land uses within Urban districts, with the following exceptions:

- State lands, such as lands controlled by the State of Hawaii Department of Transportation (HDOT) (e.g., portions of Honolulu Harbor, Honolulu International Airport and State roadway facilities) or the Hawaii Department of Land and Natural Resources (HDLNR) (e.g., submerged lands and state parks);
- Areas controlled by the military;

- The Kakaako Community Development District, which is administered by the Hawaii Community Development Authority (HCDA), a State authority; and
- The Aloha Tower area controlled by the Aloha Tower Development Corporation (ATDC), a State entity.

Coastal Zone Management

The objectives and policies of the Hawaii Coastal Zone Management (CZM) Program are intended to protect and manage Hawaii's valuable coastal areas and resources. Pursuant to 15 CFR 930.32, federally permitted, licensed or assisted activities undertaken in or affecting Hawaii's coastal zone must be consistent with the objectives and policies of the CZM program. The primary transportation corridor is in the CZM area.

Kakaako Community Development District Plans

Kakaako, the area east of Downtown Honolulu bounded by South Street to the west (Ewa), Kapiolani Boulevard to the north (mauka), Piikoi Street to the east (Koko Head) and the coastline to the south (makai), is a special development district under the management of the Hawaii Community Development Authority (HCDA), a State agency established for long-range community planning and development. HCDA has developed major redevelopment plans for this district, which are in various stages of implementation. These redevelopment plans are intended to make Kakaako a major activity node for residential, industrial, office, maritime and other land uses. The Kakaako Community Development District Plan, adopted in 1982, serves as the basis for guiding public and private development activities in Kakaako.

For planning purposes, the district has been divided into Mauka and Makai areas, demarcated by Ala Moana Boulevard.

The Makai Area Plan, originally prepared and adopted in 1983, was revised in 1998. The basic land use premise of the plan is that substantial portions of the 221-acre Makai Area should be set aside for public enjoyment and access to the waterfront. According to the plan, the overall vision is "to create an active area through a variety of new developments, including an expansive waterfront park, maritime uses along the harbor, restaurants, seafood markets and entertainment along Kewalo Basin, a children's museum and a theater for performing arts, a world-class aquarium, and commercial development of the interior areas" (Makai Area Plan, August 1998). Plans for the area also include a new UH medical school and a private biomedical research facility.

HCDA's development strategy incorporates commercial activities, parks, restoration of the former Ala Moana Pump Station for a restaurant and Hawaiian music venue, and the inclusion of other public facilities in Kakaako Makai. As part of this strategy, current projects include infrastructure improvements to Ilalo Street and relocation of the City corporation yards out of Kakaako.

The Mauka Area Plan addresses 300 acres north of Ala Moana Boulevard, and was revised in 1997. The overall goal of the Mauka Area Plan echoes that of the Kakaako Community Development District Plan, which is to guide private and public development in the revitalization of Kakaako. Recent improvements to Kamakee Street from Kapiolani Boulevard to Queen Street improved circulation in the Mauka Area. Higher density development, including additional medium-to-high density residential uses, are envisioned for the Mauka Area.

Aloha Tower Development Plan

The State's Aloha Tower Development Corporation (ATDC) is responsible for the redevelopment of 22 acres of pier area fronting Downtown Honolulu. The ATDC developed a four-phased master plan in the late 1980s for Piers 5 to 14. The proposed plan includes maritime facilities, restaurants, retail shops, offices, a hotel, and residential condominiums. Thus far, only the first phase, redevelopment of Piers 8 to 10, has been completed. Phase One consists mainly of the Aloha Tower Marketplace development, which includes restaurants and retail stores. ATDC is updating the current master plan for Piers 5/6, 10/11 and 12 – 14, and is expected to lay the groundwork for additional development opportunities.

Honolulu Waterfront Master Plan

The Honolulu Waterfront planning area encompasses approximately 1,550 acres adjoining Honolulu Harbor. The 1989 Honolulu Waterfront Master Plan Final Report (HWMP) (1989), prepared for the Office of State Planning (now the Office of Planning in the State Department of Business, Economic Development and Tourism), included a variety of mixed-use developments in the harbor vicinity, and a Sand Island Parkway, including a tunnel between Sand Island and Kakaako. The Oahu Commercial Harbors 2020 Master Plan has updated portions of this Plan.

State Transportation Plans

Oahu Commercial Harbors 2020 Master Plan

The HDOT Harbors Division prepared the Oahu Commercial Harbors 2020 Master Plan (OCHMP) (May 1997), a long-range plan for all of the commercial harbors on the island: Honolulu Harbor, Kalaeloa Barbers Point Harbor, and Kewalo Basin. The OCHMP updated separate 2010 plans prepared for Honolulu and Kalaeloa Barbers Point Harbors. The OCHMP addressed issues and needs relating to the maritime industry exclusively (e.g., cargo and passenger movements and fishing), unlike the HWMP, which addressed additional waterfront issues, such as commercial development and landside recreation.

Major port facility improvements recommended for Honolulu Harbor include a new container terminal at the former Kapalama Military Reservation, improving Kalihi Channel to establish a second harbor entrance, a cruise ship terminal at Pier 2, expansion of the Young Brothers interisland terminal at Piers 39 and 40, a roll-on, roll-off (RORO) automobile terminal at Piers 31 to 33, an excursion vessel passenger terminal at Piers 26 and 27, and berths at Piers 19 and 20 for cruise ships. Recommended roadway improvements include a perimeter roadway around Honolulu Harbor, and a roadway tunnel under Kalihi Channel (in association with deep-draft improvements to Kalihi Channel) to replace the Sand Island Bridge.

Statewide Cruise Facilities Study (Needs Assessment)

This HDOT (Harbors Division) study assessed existing and projected levels of passenger cruise ship activity in Hawaii, in part to help the State determine cruise ship infrastructure and facility requirements for each county. Recommendations included construction of a cruise ship terminal at Pier 2 in Honolulu Harbor, and development of interim cruise ship facilities at Piers 19 and 20. Physical improvements on the neighbor islands were also recommended.

Honolulu International Airport Master Plan -- 2010

The Honolulu International Airport Master Plan -- 2010 (State of Hawaii, Department of Transportation, Airports Division, August 1994) largely focuses on facility development within the boundaries of the airport. While there is some discussion of roadway improvements, including roads in the vicinity of the airport, such improvements are limited to street level changes, and will not directly impact the grade-separated H-1 traffic.

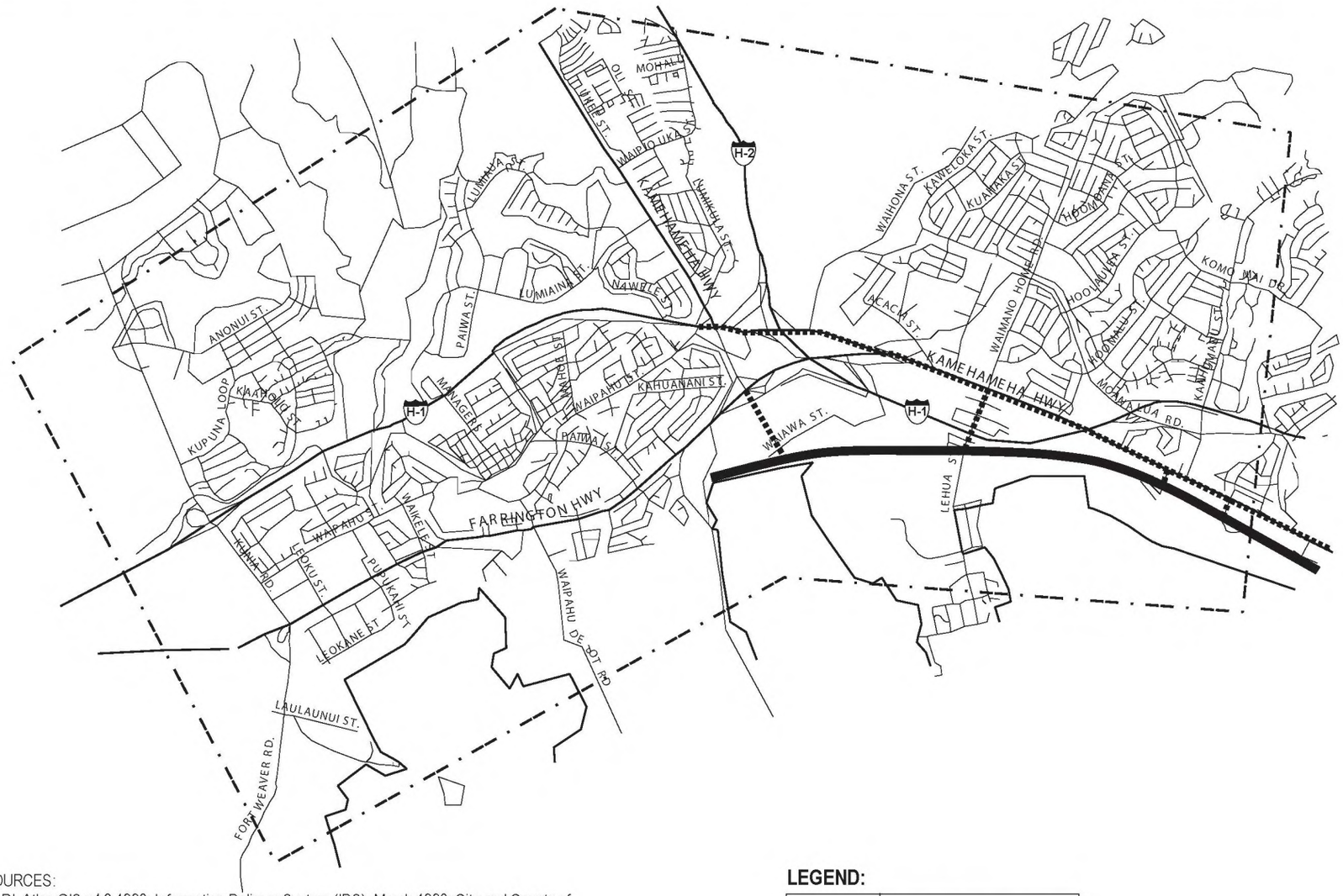
Bike Plan Hawaii

Bike Plan Hawaii (April 1994) recommended improvements to the State's bikeway systems. This Plan serves as guidance to the HDOT and county transportation agencies when roadways are built or modified. The Honolulu Bicycle Master Plan (April 1999), prepared by the City and County of Honolulu, recently supplemented this plan (the County plan is discussed more fully below). Figures 3.1-4A through 3.1-4C show existing and future bikeways, according to Bike Plan Hawaii and the Honolulu Bicycle Master Plan.

Recreational Plans

State Comprehensive Outdoor Recreation Plan (SCORP)

First prepared in 1966, the SCORP is updated every five years by the State Parks Division of HDLNR. The December 1996 statewide plan provides the planning assumptions and technical basis for developing and operating recreational facilities. This document identifies existing federal and state outdoor recreational facilities, and an assessment of future demand for recreation resources and programs. Surveys and interviews conducted in conjunction with this plan in 1996 indicated that there is increasing demand for



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998; Honolulu Bicycle Master Plan - Helber Hastert & Fee Planners, Bicycle Federation of America, Engineering Concepts, Inc. & David Cheever Marketing, April 1999.

LEGEND:

▬▬	Existing Bikeways
▪▪▪▪▪▪▪	Proposed Bikeways

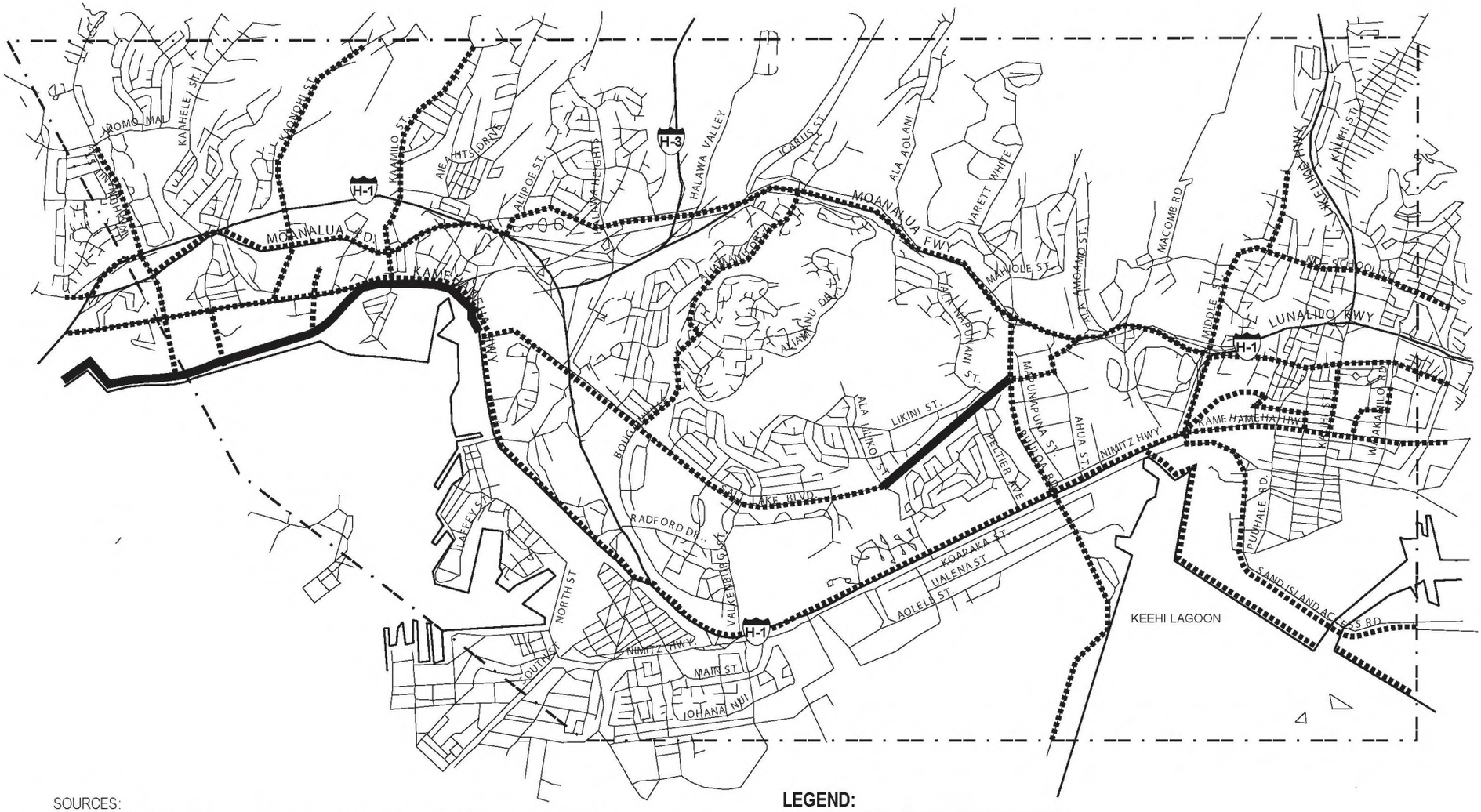
N

Scale: 0 .25 .50 mi

Scale: 0 .5 1 km

Bikeways: Waipahu - Pearl City

Figure 3.1-4A



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998; Honolulu Bicycle Master Plan - Helber Hastert & Fee Planners, Bicycle Federation of America, Engineering Concepts, Inc. & David Cheever Marketing, April 1999.

LEGEND:

▬▬	Existing Bikeways
▪▪▪▪▪▪▪▪	Proposed Bikeways

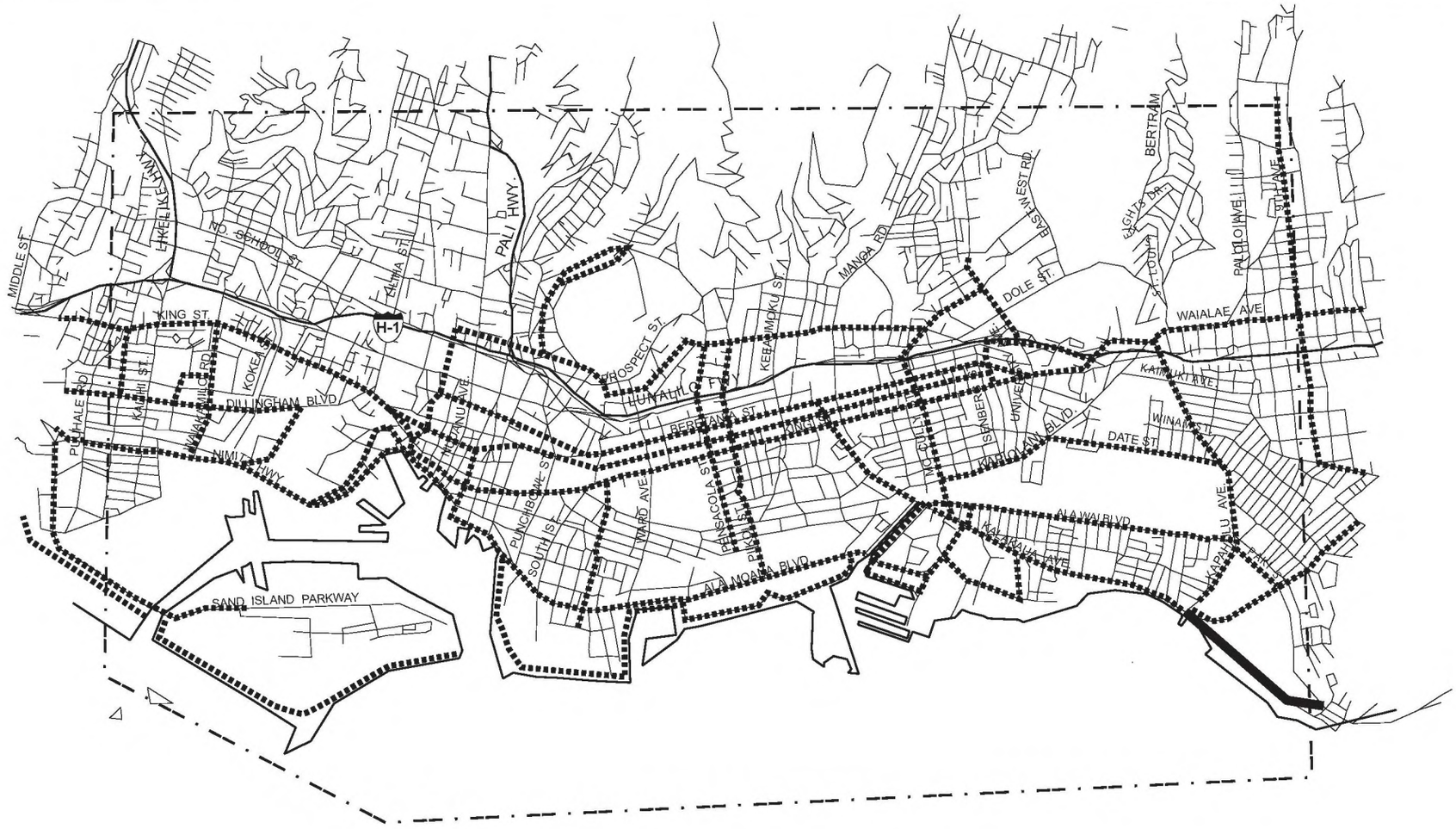
N

Scale: 0 .25 .50 mi

Scale: 0 .5 1 km

Bikeways: Aiea - Fort Shafter

Figure 3.1-4B



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998; Honolulu Bicycle Master Plan - Helber Hastert & Fee Planners, Bicycle Federation of America, Engineering Concepts, Inc. & David Cheever Marketing, April 1999.

LEGEND:

▬▬	Existing Bikeways
▪▪▪▪▪▪▪	Proposed Bikeways

N

Scale: 0 .25 .50 mi
Scale: 0 .5 1 km

Bikeways: Kalihi - University

Figure 3.1-4C

additional and safe bicycling and pedestrian corridors statewide. While demand for ocean recreational facilities will continue, future development of marinas and recreational harbors will most likely have to be carried out by private developers (p. 4-13, SCORP 1996).

Educational Institution Plans

UH Manoa Master Plan

The Long Range Development Plan, University of Hawaii, Master Plan 1994 Update (Prepared by Group 70 International for University of Hawaii -- Community Colleges Physical Facilities Planning and Construction Office, April 1994) is a facility plan for the University of Hawaii's Manoa campus. The Master Plan is reviewed and approved by the UH Board of Regents, and serves as a basis for infrastructure improvements and capital program funding requests. The 1994 Update of the UH Manoa Campus long range development plan proposes to enhance the "sense of place" on the campus by locating both pedestrian and vehicular gateways at key access points to campus. The UH plans to construct a pedestrian gateway at the intersection of Campus Road and University Avenue, and a landscaped mall continuing to a "town center" at Varney Circle.

Leeward Community College and West Oahu Campus Master Plan

The purpose of the Leeward Community College Long Range Development Plan, Final Environmental Assessment (LRDP) (Prepared by Group 70 International, for University of Hawaii -- Community Colleges Physical Facilities Planning and Construction Office, March 1999) is to develop a plan for the physical site and facilities uses within the West Oahu campus and improve the transportation linkage to the surrounding community, among other goals. Most plans specified in the LRDP are aimed at improving on-site facilities. There is some discussion of ways to improve the access to and from the campus that is currently limited to Waiawa Road and Ala Ike Road on the makai side of H-1, near the Farrington Highway interchange.

UH West Oahu

A University of Hawaii (UH) West Oahu campus is planned for the Ewa region. A site on the mauka side of the H-1 Freeway in the vicinity of the future North-South Road Interchange was previously considered, but this plan was abandoned. Following extensive discussions with the community, UH officials are likely to move ahead on a 500-acre site on the Ewa plain located between Kapolei Golf Course and the future North-South Road.

UH Health and Wellness Center

The UH Health and Wellness Center will be a new campus for the U.H. John A. Burns School of Medicine (JABSOM) in Kakaako Makai. It is located between Ilalo Street and the Kakaako Waterfront Park. The first phase of the project includes construction of two buildings that will house the JABSOM, biomedical research facilities and the Cancer Research Center of Hawaii. Phase II of the project includes a parking structure and a future research center.

2) Military Installation Planning

Pearl Harbor

The Department of the Navy prepared the Pearl Harbor Naval Complex Master Plan (October 1991), a comprehensive planning document, to guide the development of the Pearl Harbor Naval Station and surrounding auxiliary facilities. Also noteworthy is the development of a master plan for Ford Island, known as the Ford Island Concept Plan (1998). This master plan envisions approximately $600 million of investment in residential, tourist, military and other land uses on Ford Island through public/private partnerships.

Ford Island Development

The U.S. Department of the Navy (Navy) is embarking on a program to sell or lease certain land holdings, and to improve the infrastructure, reconstruct facilities and locate or relocate Navy functional elements, family housing and supporting activities on Ford Island. Although this program involves properties other than Ford

Island, which is located within Pearl Harbor and is accessed via the recently completed Admiral Clarey Bridge off of Kamehameha Highway, it is nevertheless named the "Ford Island Development Program" because it implements specific authorizing legislation (10 USC 2814). The other affected properties are at Halawa Landing, Iroquois Point/Puuloa Housing, Waikele Branch Naval Magazine, and the former Barbers Point Naval Air Station. On Ford Island, the Navy is planning to provide up to 420 new family housing units, up to 190 thousand square feet of administrative space, bachelor enlisted quarters for up to a thousand personnel, a consolidated training complex, and infrastructure to support the development. Up to 75 acres on Ford Island are allowed to be developed by the private sector.

Fort Shafter Complex

The U.S. Army's Fort Shafter is another military facility within the study corridor and the Fort Shafter Installation Master Plan (1985) describes the planning framework for this facility. Currently, there are 4,080 bachelor and family housing units within the Fort Shafter complex, which consists of Fort Shafter, Tripler Army Medical Center (TAMC) and Aliamanu Military Reservation (AMR). Most military housing at Fort Shafter is located on the mauka side. There are no new units programmed between now and the year 2005.

Armed Forces Recreation Center – Fort DeRussy

A Master Plan, prepared by the University of Southern Mississippi (1988) for the U.S. Army and approved by the Secretary of the Army (1988), recommended improvements to Fort DeRussy placing greater emphasis on its recreational mission. An EIS for the Master Plan was prepared and received approval in 1991. The facility has subsequently been redeveloped to fulfill its primary mission of recreation and most Army reserve functions have been moved to Fort Shafter. The improvements included extensive landscaping of the Army post, construction of the second hotel tower, construction of a 1,300-stall hotel parking structure, and realignment and widening of Kalia Road.

Hickam Air Force Base

The Comprehensive Plan - Future Land Use Plan, Hickam Air Force Base, Oahu, Hawaii (October 1988) guides land use planning and future development of the base. New facilities are not planned near Nimitz Highway.

Kalaeloa (former Barbers Point Naval Air Station) Reuse

The naval air station was closed in 1999. A master plan designates various mixed uses to be developed over time. The redeveloped area would support about 3,390 jobs including the general aviation airport, the National Guard and lands for Hawaiian Home Lands use.

Fort Armstrong

Fort Armstrong is a former military facility located at Piers 1 and 2 in the Kakaako Makai area. This area was once the primary container cargo facility on Oahu. Now it is used for maritime break-bulk and limited container cargo operation, ship maintenance operation, and Foreign Trade Zone warehouse and offices. In the future, Pier 2 could be needed as an additional cruise boat terminal.

3) City and County of Honolulu Plans and Policies

General Plan of the City and County of Honolulu

The General Plan (revised 1992) includes broad statements on the objectives and policies of the City and County of Honolulu with regard to overall physical and economic development of the island, as well as the

health and safety of the island's residents. The General Plan directs population growth and new residential development primarily to the PUC and Ewa, while limiting growth in other areas.

Development and Sustainable Community Plans

The City and County of Honolulu prepared a Development or Sustainable Community Plan for each of the eight planning areas. A general overview of the planning areas within the primary corridor can be found in Section 3.1.2. Past development plans consisted of detailed (by parcel) land use and public facilities maps. In 1992, the Revised Charter of the City and County of Honolulu was amended to require development plans to "consist of conceptual schemes for implementing and accomplishing the development objectives and policies of the General Plan and serve as a policy guide for more detailed zoning maps and regulations and public and private sector investment decisions."

The PUC Development Plan (PUC DP) is currently being revised. Until the revision is adopted, the previously approved PUC DP remains in force. According to the PUC DP (Revised Ordinances of Honolulu, 1990, Chapter 24, Article 2), the PUC shall accommodate relatively intensive commercial, governmental, residential, and recreational functions while safeguarding and adding to the existing amenities of the City's urban environment.

The Ewa Development Plan (Ewa DP) (adopted in August 1997) was the first to be updated consistent with the 1992 Charter Amendments. The Ewa DP consists of vision statements, community design principles and guidelines; and conceptual mapping of open space networks, public facility networks, and urban land uses. The vision for Ewa is the development of a "Secondary Urban Center" on Oahu to provide opportunities for urban development and residential growth. The Ewa DP projects over 38,000 housing units located primarily in master planned communities in the Ewa area by 2020. Substantial job growth is also estimated, with over 52,000 jobs in the Ewa DP Area by 2020. The City of Kapolei would have over 25,000 jobs in office, retail and government; Campbell Industrial Park and parcels adjacent to Kalaeloa Barbers Point Harbor would support more than 7,000 jobs; and the redeveloped Kalaeloa area would support approximately 3,390 jobs. Kapolei has already become the headquarters for some State agencies, which have relocated from Downtown, and a further shift in government jobs to Kapolei is expected. The City and County Civic Center and a new police station have opened in Kapolei.

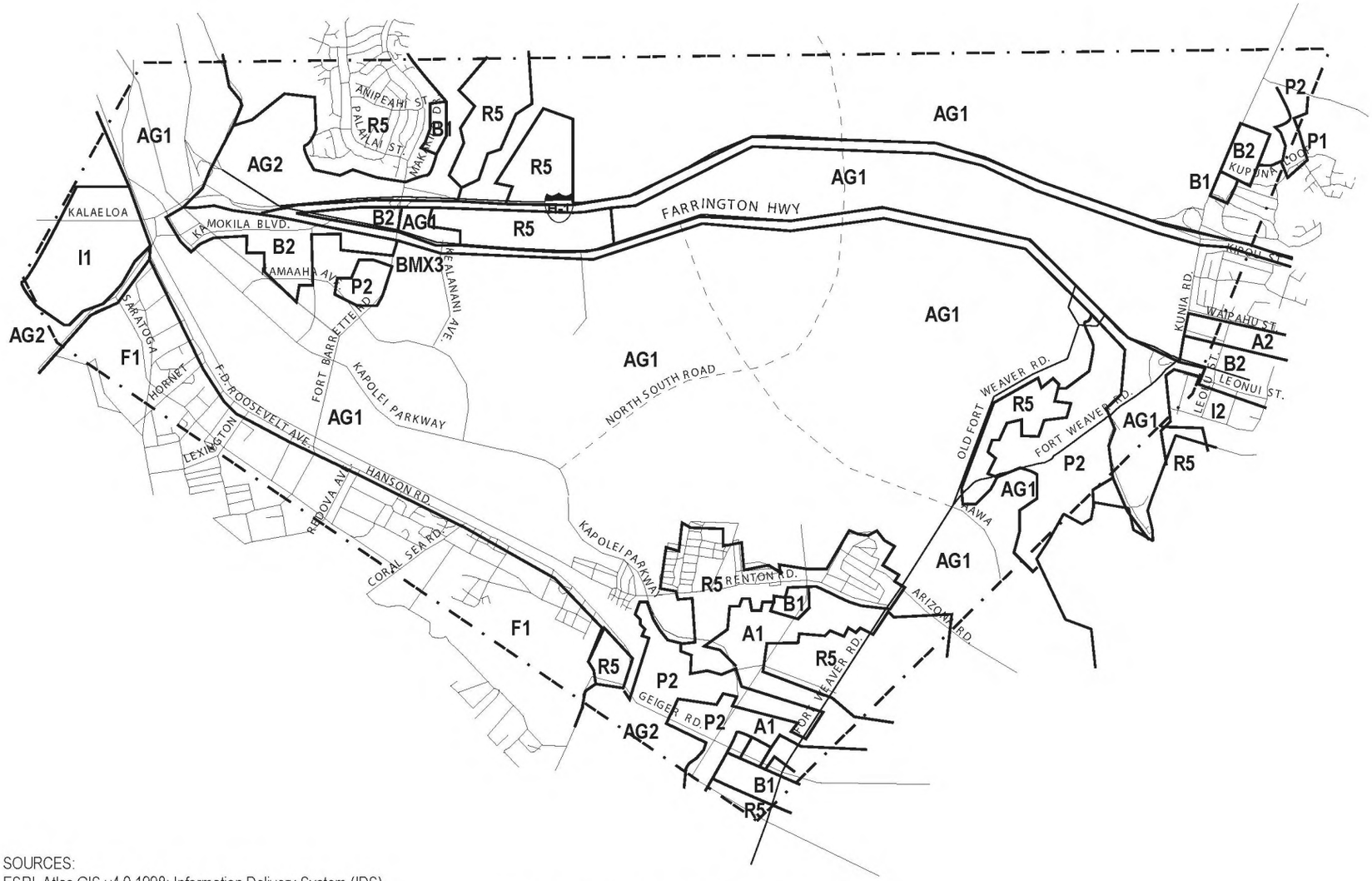
The Central Oahu Sustainable Community Plan (Central Oahu SCP) has been completed, and has passed first reading at the City Council. It was referred to the Council's Planning Committee for further public discussion. Until the Central Oahu SCP is adopted by the City Council, the previous Central Oahu Development Plan remains in force.

Under the Revised Charter (1992), the Department of Planning and Permitting (DPP) administers zoning. The City and County of Honolulu Land Use Ordinance (LUO) is the local zoning code, and zoning is required to be in conformance with the Development Plans, which are policy guidelines. Zoning designations within the study area are shown in Figures 3.1-5A through 3.1-5F.

The LUO includes Special Districts and zoning designations (see Figures 3.1-5A through 3.1-5F). The study area contains the Chinatown, Hawaii Capital, Punchbowl, Thomas Square, Waikiki and Diamond Head Special Districts. The Special District ordinance outlines specific objectives and design controls for each special district, such as guidelines for architectural controls, building heights, landscaping, and preservation of visual resources and historic structures.

Special Management Area

The 1975 Shoreline Protection Act designated a shoreline Special Management Area (SMA), and Hawaii Revised Statutes (HRS) Chapter 205A outlines special controls, policies, and guidelines for development



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

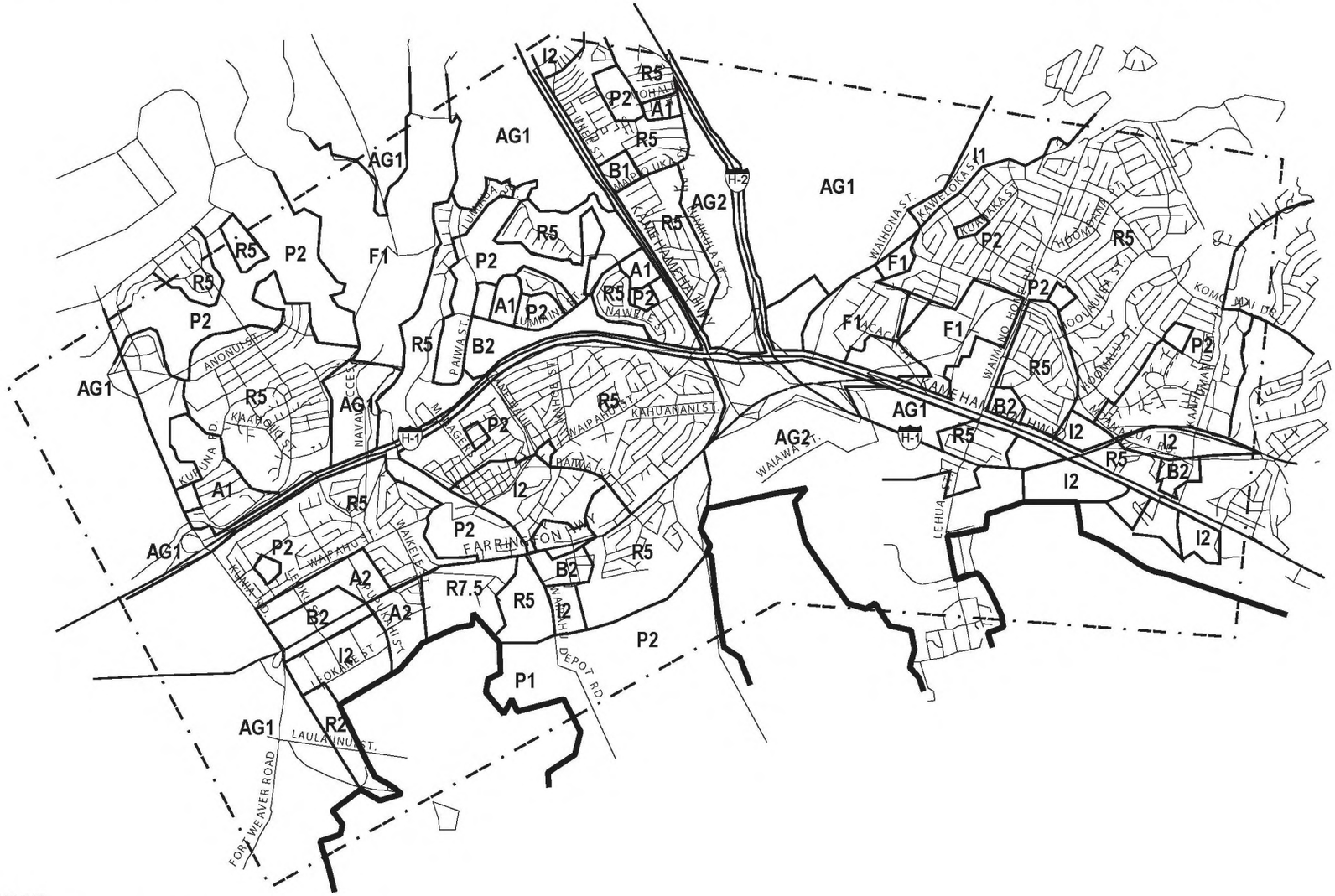
* Zoning map designations can be found on Figure 11-6F.

N

Scale: 0 .25 .50 mi

Zoning Map: Kapolei - Ewa

Figure 3.1-5A



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

* Zoning map designations can be found on Figure 11-6F.

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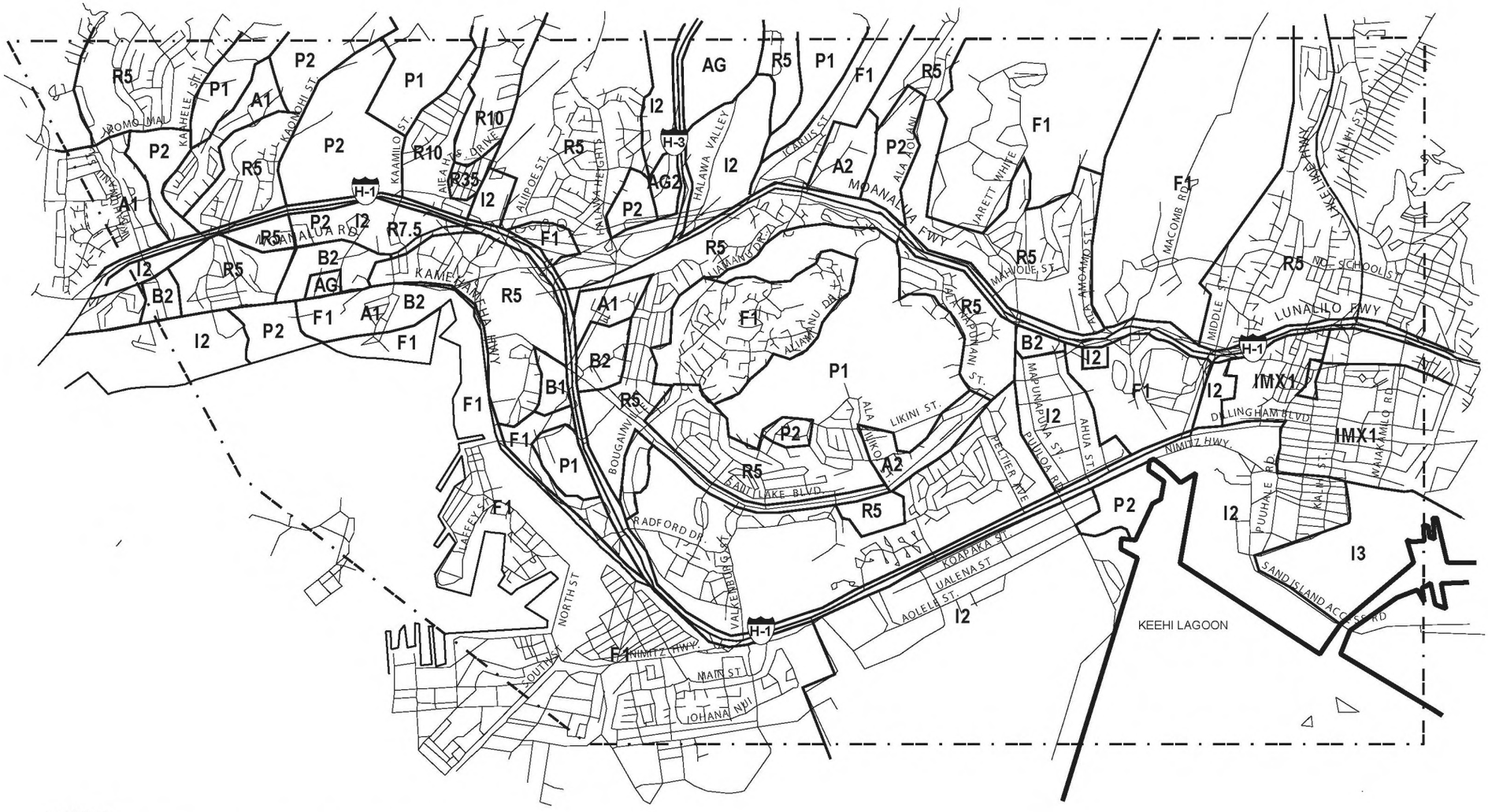
Scale: 0 .25 .50 mi

Zoning Map: Waipahu - Pearl City

Figure 3.1-5B



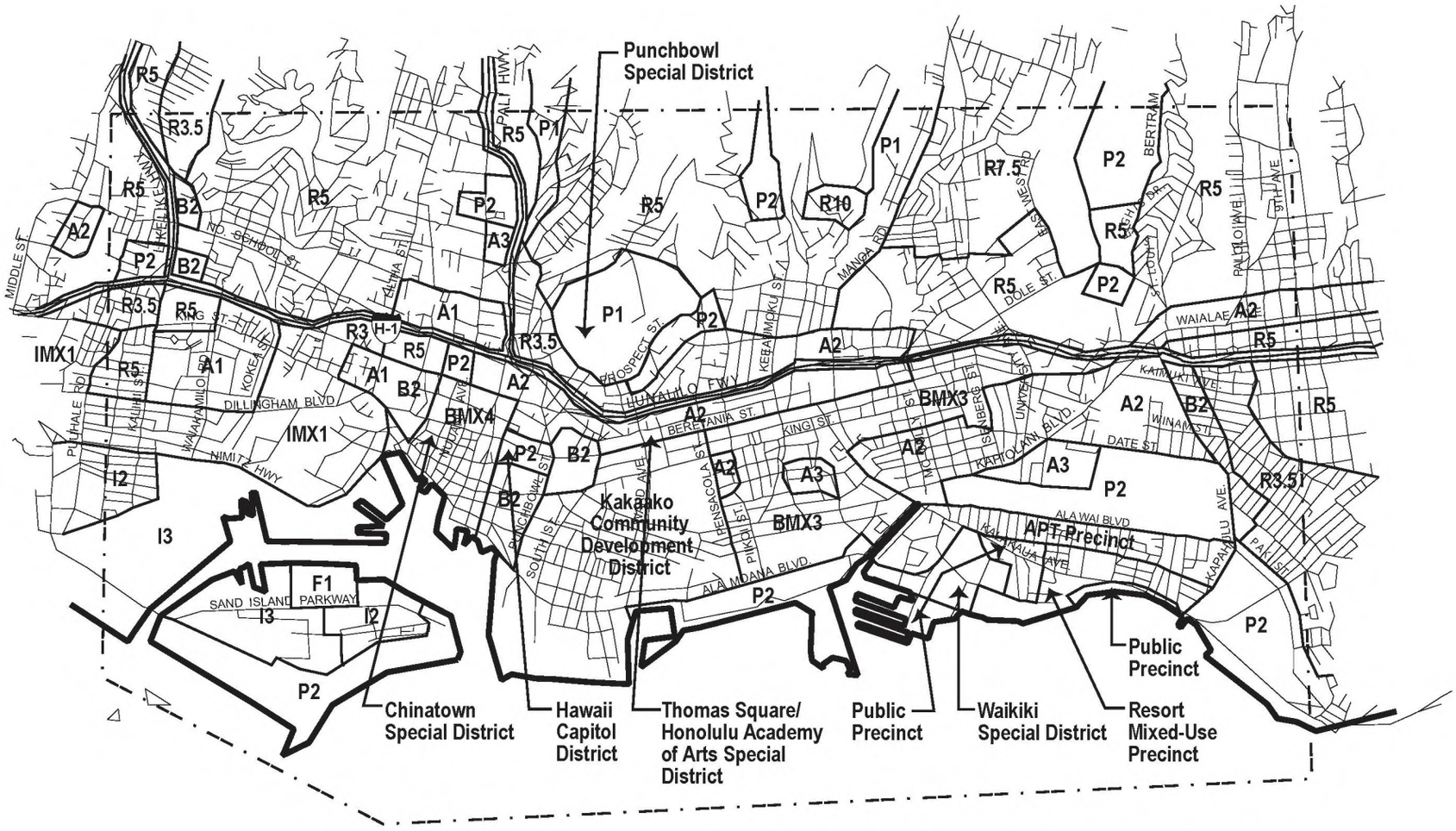
SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

* Zoning map designations can be found on Figure 11-6F.

Scale: 0 .25 .50 mi

Zoning Map: Aiea - Fort Shafter

Figure 3.1-5C



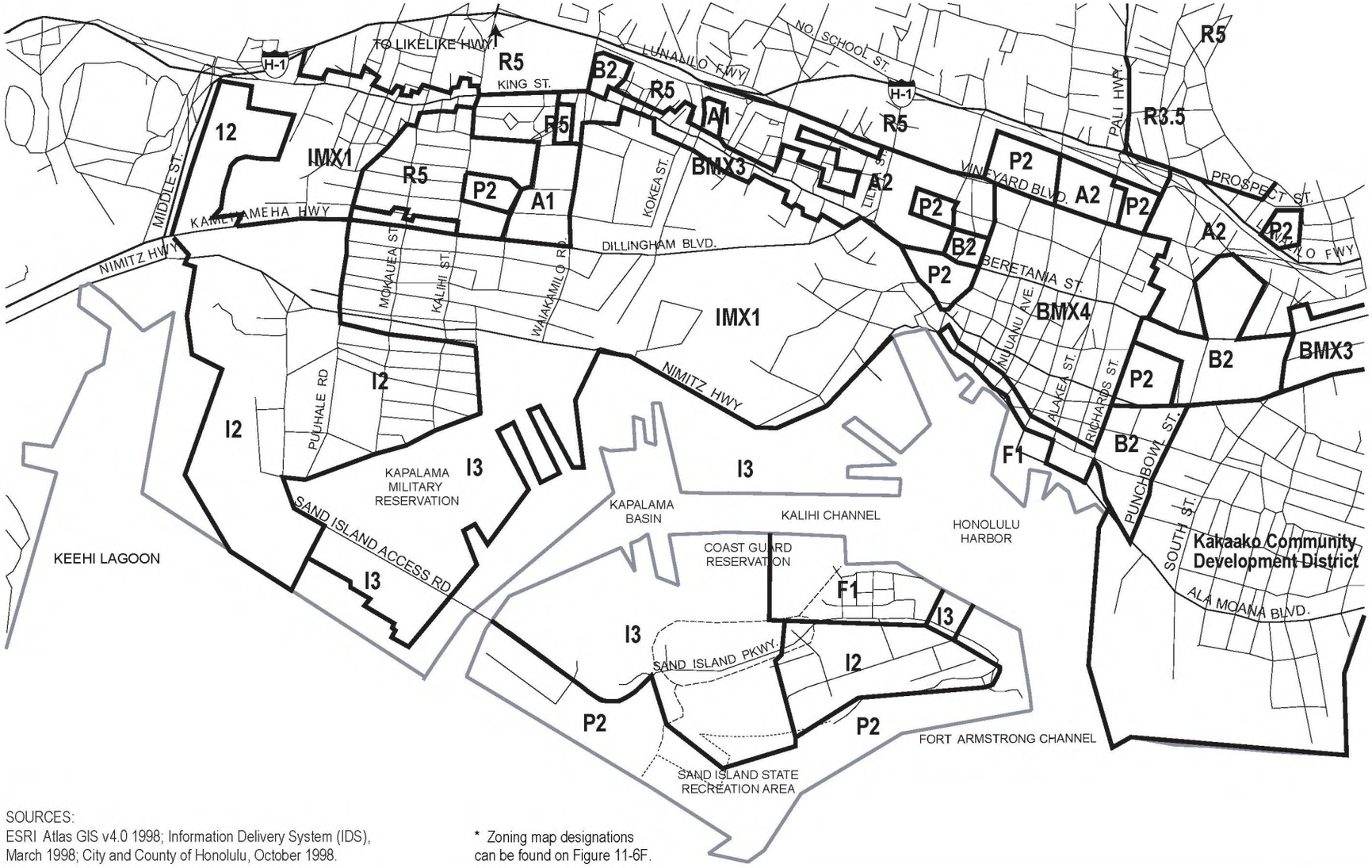
SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

* Zoning map designations can be found on Figure 11-6F.

Scale: 0 .25 .50 mi

Zoning Map: Kalihi - University

Figure 3.1-5D



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

* Zoning map designations can be found on Figure 11-6F.

Scale: 0 .50 1.0 mi

Zoning Map: Downtown - Kalihi - Sand Island

Figure 3.1-5E

1. P2 General Preservation
2. AG1 Restricted Agricultural
3. AG2 General Agricultural
4. Country Districts

5. R2 & R10 Residential
6. R7.5 & R5 Residential

7. A1 Low Density Apartment
8. A2 Medium Density Apartment
9. A3 High Density Apartment

10. AMX1 Low Density Apartment Mixed Use
11. AMX2 Medium Density Apartment Mixed Use
12. AMX3 High Density Apartment Mixed Use
13. Resort Districts

14. B1 Neighborhood Business
15. B2 Community Business
16. BMX3 Community Business Mixed Use
17. BMX4 Central Business Mixed Use

18. I1 Limited Industrial
19. I2 Intensive Industrial
20. I3 Waterfront Industrial
21. IMX1 Industrial Commercial Mixed Use
22. F1 Military and Federal

SPECIAL DISTRICTS

23. Hawaii Capitol Special District
24. Punchbowl Special District
25. Chinatown Special District
26. Thomas Square / Honolulu Academy of Arts Special District
27. Waikiki Special District

SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; Planning Department, City and County of Honolulu, October 1998.

	Zoning Map: Legend	Figure 3.1-5F

within the SMA. This Act gave the counties authority to issue permits for development proposed within the SMA. For the City and County of Honolulu, DPP is the agency that administers the SMA use permit program.

The City Council acts on major SMA permits (those with capital costs over $125,000 within the SMA). The DPP director acts on minor SMA permits. Figures 3.1-6A through 3.1-6D show the SMAs within the study area.

Honolulu Bicycle Master Plan

The City and County has developed a bicycle facility master plan for the PUC. The Honolulu Bicycle Master Plan was completed in April 1999, and includes the following concepts to improve bicycling in the PUC:

- Bike-Friendly Route from Pearl City to Kahala: a bicycle-friendly route providing connections between Pearl City and Kahala (across urban Honolulu), tailored to the more experienced cyclist;
- College Access Network: bikeway improvements on roadways leading and adjacent to colleges and universities; and
- Lei of Parks: A system of bikeways linking regional and local parks from Aloha Tower to Diamond Head.

Hub-and-Spoke Bus Route Revision Program

This program involves converting the existing City and County bus routes from a predominately radial network to a hub-and-spoke configuration. Hub-and-spoke networks provide an integrated system of convenient and accessible circulator, local and express routes, organized around transit centers. The bus routes are the "spokes" and the transit centers are the "hubs" in the hub-and-spoke network. So far, 18 routes in Leeward Oahu have been converted to hub-and-spoke, and plans are underway in Central Oahu for conversion of the routes there in 2003.

4) Oahu Metropolitan Planning Organization

The Oahu Metropolitan Planning Organization (OMPO) is a joint State of Hawaii and City and County of Honolulu organization. It prepares the Oahu regional transportation plan (ORTP). The ORTP has many functions, including the identification of facilities and programs to meet increased travel demands on Oahu. The Transportation for Oahu Plan 2025 (TOP 2025), adopted in April 2001, updates the 2020 ORTP in response to the changing transportation needs of Oahu and extends the planning horizon to the year 2025. The In-Town and Regional BRT elements of the Refined Locally Preferred Alternative are included in the TOP 2025 Plan.

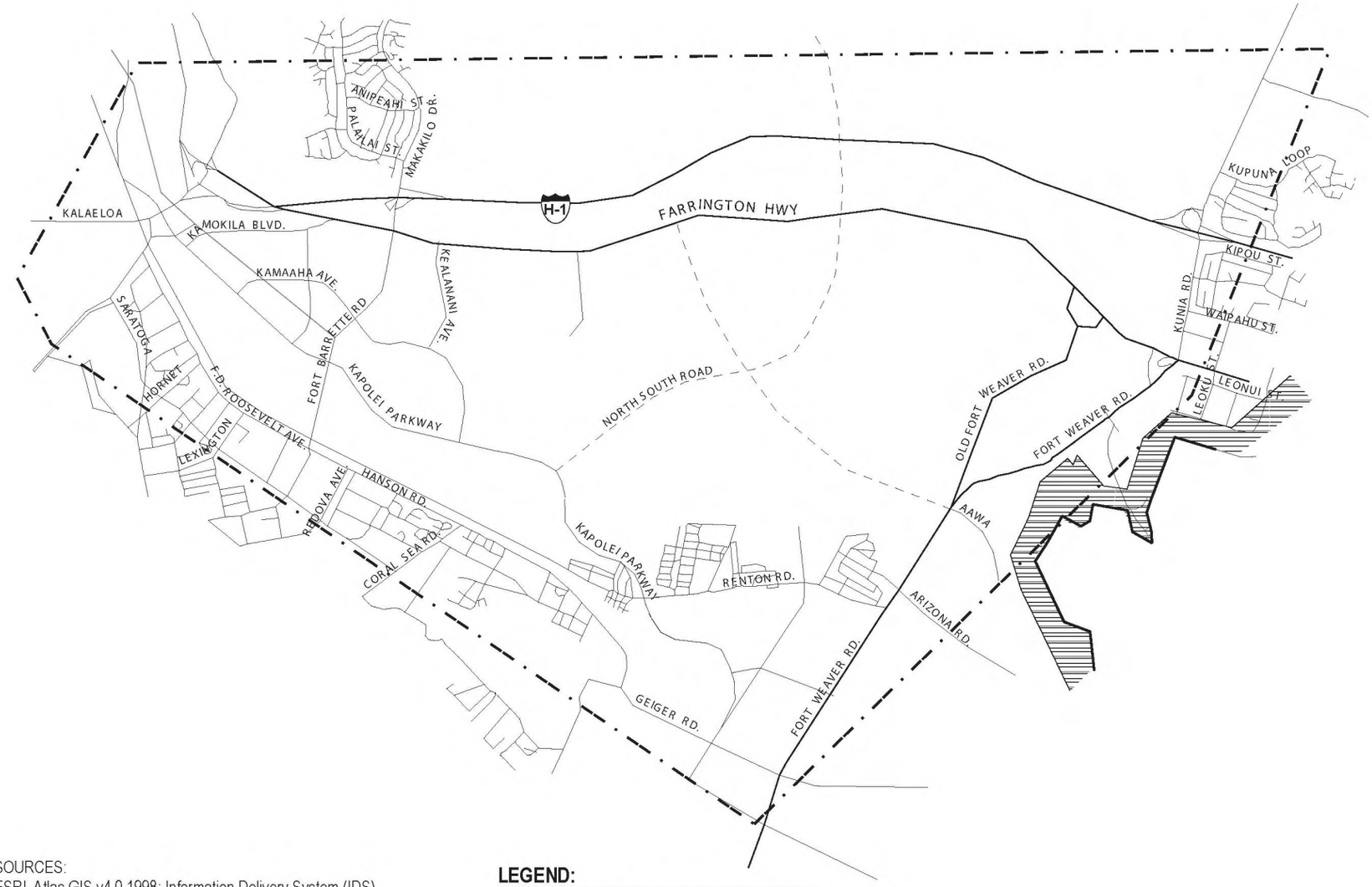
5) Private-Sector Plans

Waikikian Development Plan

The Hilton Hotels Corporation is planning to replace the former Waikikian Hotel, a parcel located along Ala Moana Boulevard between Hilton Hawaiian Village and the Renaissance Ilikai Hotel, with a new 350-foot hotel building containing up to 350 vacation ownership units, that includes parking, a restaurant, retail shops, a wedding chapel, and a swimming pool. The project also includes widening Dewey Lane, the road between the Waikikian Hotel site and the Ilikai, as well as appurtenant facilities and infrastructure.

Waikiki Beach Walk

Outrigger Enterprises, Inc. will be redeveloping its landholdings makai of Kalakaua Avenue, in Waikiki, along Lewers Street, Kalia Road, Beach Walk and Saratoga Road. The project, spanning two phases, will upgrade



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

LEGEND:

	Special Management Area

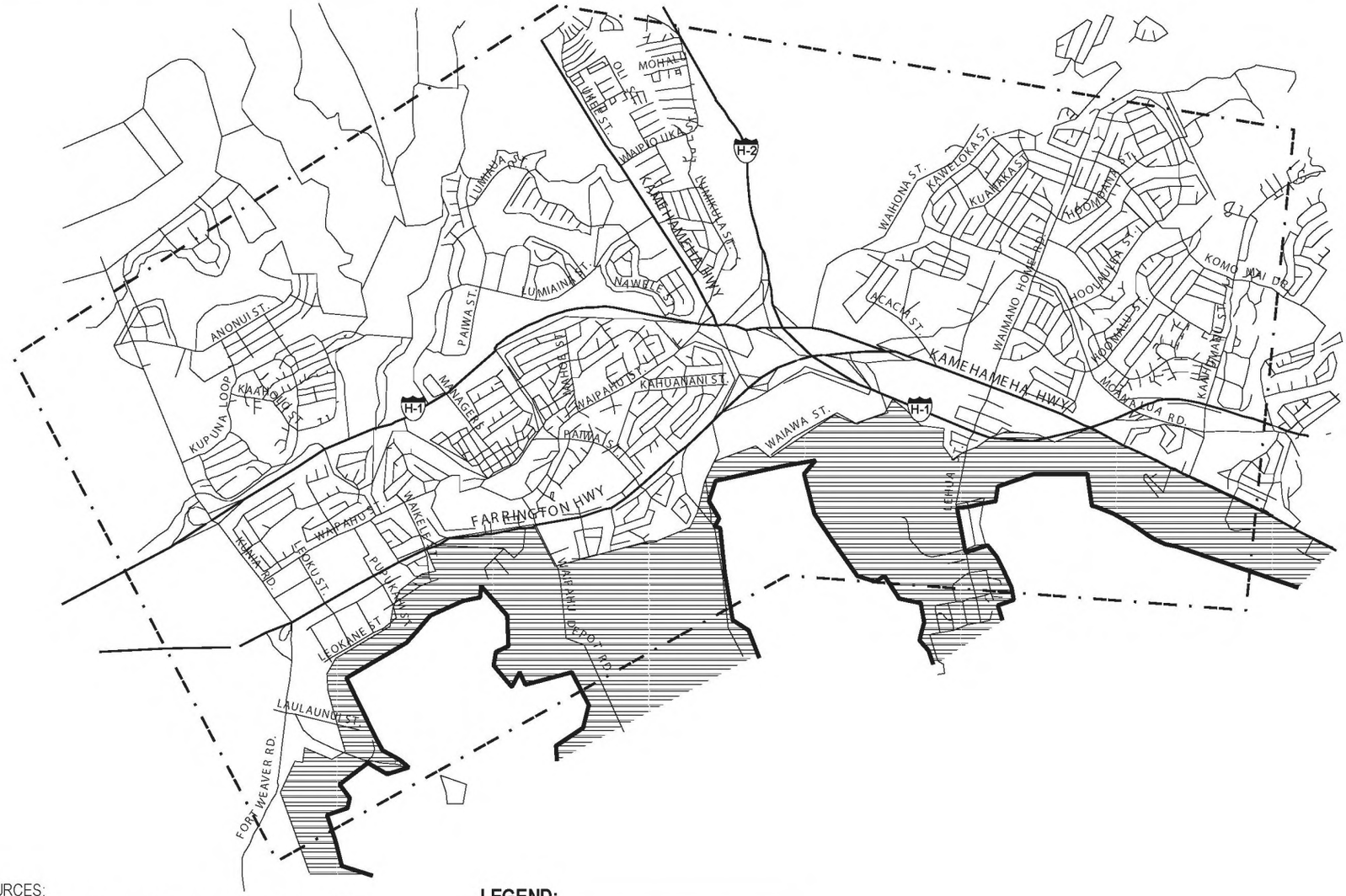
N

Scale: 0 .25 .50 mi

Scale: 0 .5 1 km

Special Management Area: Kapolei - Ewa

Figure 3.1-6A



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

LEGEND:

	Special Management Area

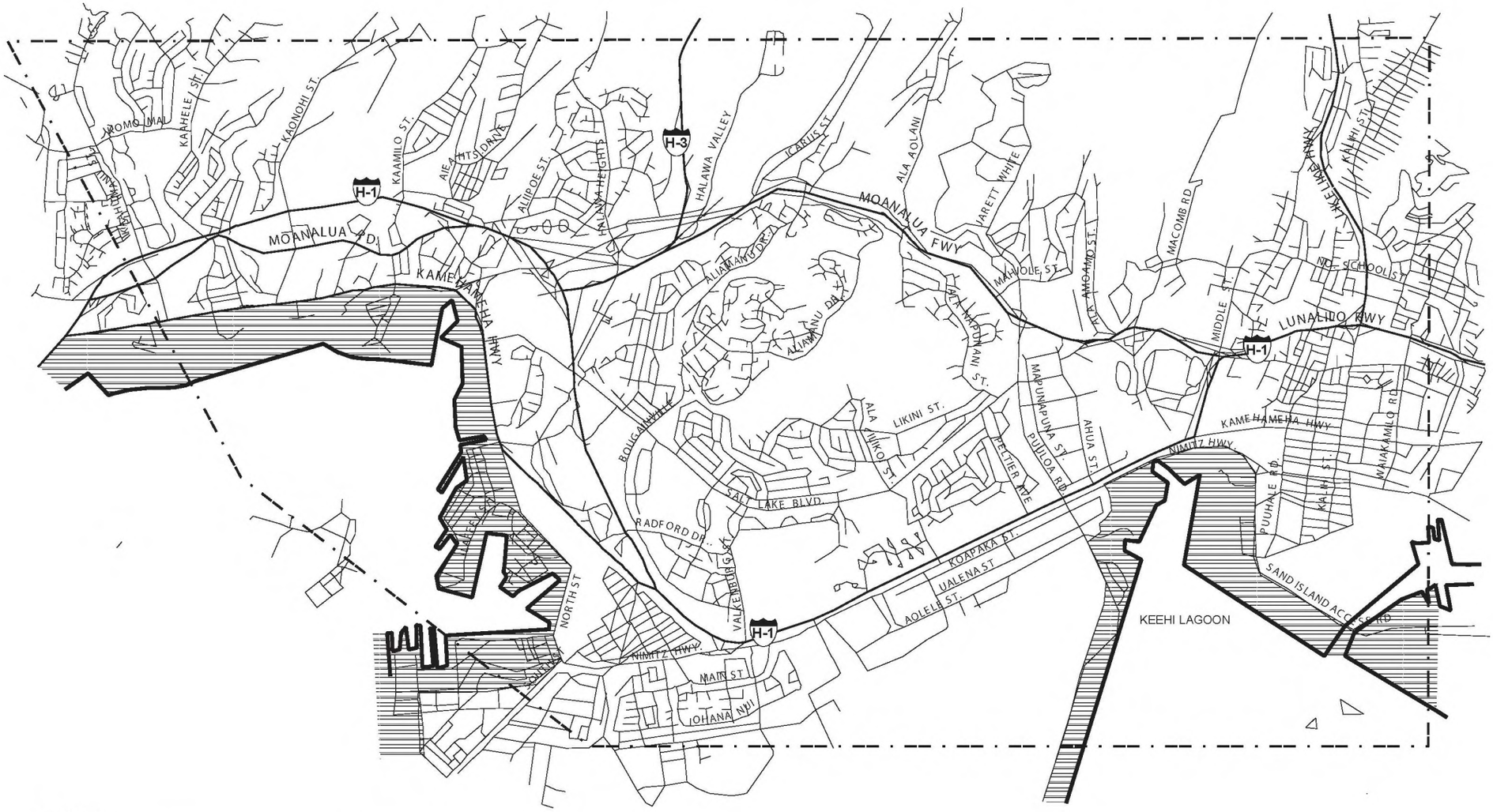
N

Scale: 0 .25 .50 mi

Scale: 0 .5 1 km

Special Management Area: Waipahu - Pearl City

Figure 3.1-6B



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

LEGEND:

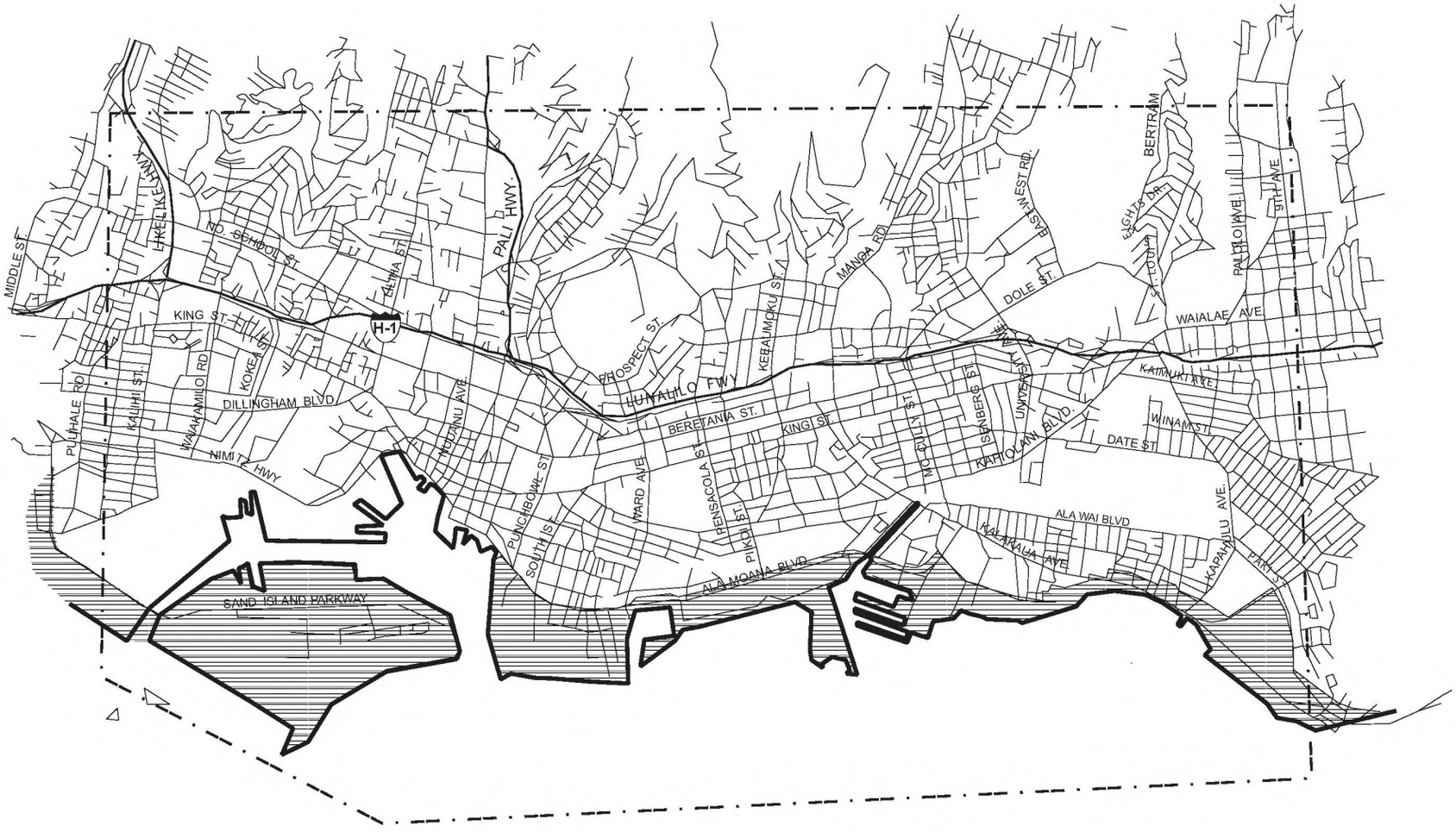
Special Management Area

Scale: 0 .25 .50 mi

Scale: 0 .5 1 km

Special Management Area: Aiea - Fort Shafter

Figure 3.1-6C



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

LEGEND:

	Special Management Area

Scale: 0 .25 .50 mi

Scale: 0 .5 1 km

Special Management Area: Kalihi - University

Figure 3.1-6D

five existing hotels, demolish six older hotels, and provide a new entertainment retail complex, a new hotel, and enhanced public areas.

3.1.6 Population and Employment Trends

The State Department of Business, Economic Development, and Tourism (DBEDT) develops population and employment forecasts for the entire island; the City and County's Department of Planning and Permitting then steps down the islandwide "control total" to subareas of the island.

1) Population Trends and Projections

Table 3.1-2 contains 2025 population projections from OMPO's latest Transportation for Oahu Plan 2025, and summarized distribution of the island totals by subareas as of 2000. The plan was developed based on socioeconomic and land use forecasts provided by the City and County of Honolulu Department of Planning & Permitting for the year 2025, which were based on State DBEDT projections. These more recent forecasts have been used to update travel demand analysis in the FEIS.

TABLE 3.1-2
PROJECTED OAHU POPULATION SUMMARY

	2000	Forecast	
		2025	Change From 2000
PUC DP			
Waikiki	21,900	24,120	2,220
Other PUC	404,413	470,311	65,898
Ewa	68,092	114,205	46,113
Other	378,510	421,171	42,661
Total	**872,915**	**1,029,807**	**156,892**

Source: OMPO, April 2001, based on C&C of Honolulu Department of Planning and Permitting forecasts.

The State and City have a development policy that encourages growth in the PUC and Kapolei, in part to minimize suburban sprawl and the associated costs of extending public infrastructure and services into presently undeveloped areas. The goal of preserving open space ("keep the country country"), given the limited land area of Oahu, is not only a governmental policy, it is a widespread public sentiment frequently repeated during the public outreach activities that have been conducted during project planning.

Therefore, consistent with the goal of concentrating new growth in the PUC and Kapolei/Ewa, the majority of the population growth between now and 2025 is forecasted to occur in the primary transportation corridor. As shown in Table 3.1-2, the fastest growing area will be Ewa. Approximately 114,000 people are projected to be living in the Ewa area in 2025, a growth of up to 67 percent in 25 years. The PUC also will experience significant growth, increasing by 66,000 people. The Central Oahu population is projected to increase from 148,380 in 2000 to 172, 977 in 2025, a gain of 17 percent (OMPO, April 2001).

2) Employment

Accompanying the growth in population will be an increase in employment. Employment increased at an average annual rate of 4.13 percent from 1970 to 1990. As shown in Table 3.1-3, according to the April 2001 OMPO forecast the number of jobs on Oahu is projected to increase by approximately 152,000 jobs between the years 2000 and 2025. About 51 percent of these new jobs will be located in the PUC. A second area for employment growth is expected to occur in Ewa/Kapolei and Waipahu (Department of Planning and Permitting, City and County of Honolulu, January 1999).

Major employment centers in the primary transportation corridor are:

- Pearl Harbor;
- Pearlridge Center;
- Honolulu International Airport;
- Industrial districts in Pearl City, Halawa Valley, Airport area, Mapunapuna, Kalihi, Iwilei and Kakaako;
- Downtown Honolulu and the Capitol District;
- Ala Moana Center and surrounding area;
- Waikiki; and
- University of Hawaii at Manoa.

Major employment centers outside or near the primary transportation corridor are Ko Olina Resort, Campbell Industrial Park and Kalaeloa (former Barbers Point Naval Air Station).

TABLE 3.1-3
PROJECTED EMPLOYMENT SUMMARY [1]

		Forecast	
	2000	**2025**	**Change From 2000**
PUC DP			
Waikiki	41,997	49,175	8,178
Other PUC	338,805	408,670	69,865
Ewa	14,895	56,634	41,736
Other	90,792	122,998	32,206
Total	**485,992**	**637,477**	**151,985**

Source: OMPO, April 2001, based on C&C of Honolulu Department of Planning and Permitting Forecasts.
Notes: [1]Excludes construction employment, which totaled 24,800 in 1997 and is projected at 26,200 in 2025.

The trade, service and government (military, federal, State and County) sectors are the major employment categories, representing 76 percent of all jobs on the island. This distribution of employment among sectors is not anticipated to change in the near future.

Despite the growing popularity of telecommuting and other trends in the nature of the workplace, future employment is forecast to be substantial and centralized in the PUC and Ewa (Kapolei).

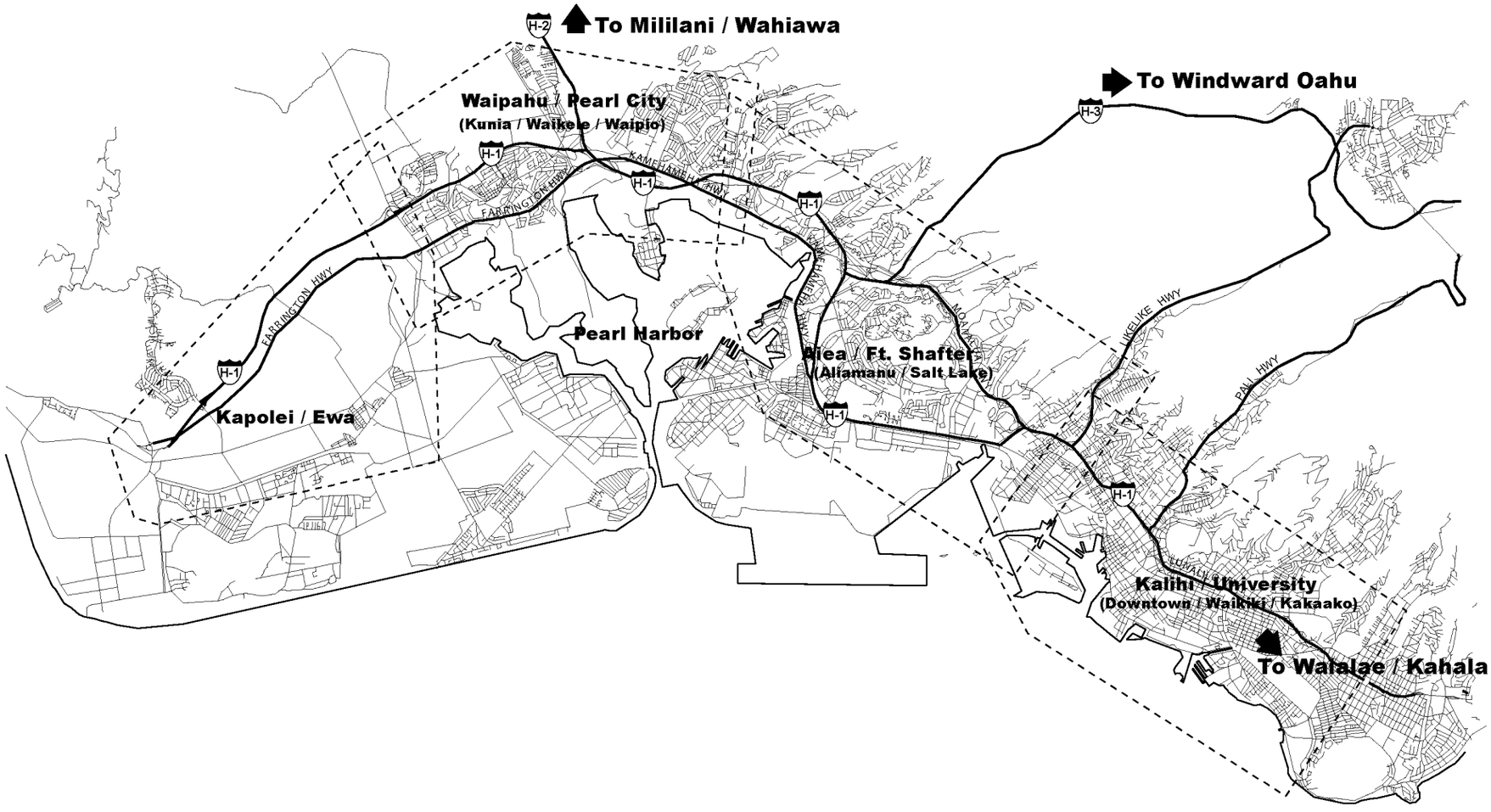
3.2 EXISTING TRANSPORTATION CONDITIONS

This section presents a summary of the characteristics of the existing transportation system in the study area.

3.2.1 Highway Network

Oahu's road network is heavily constrained by topography (major roadway facilities in the study area are shown in Figure 3.2-1). Roadways are primarily located in the coastal areas between the mountains and ocean. The dominant highways, with the exception of H-2 and H-3 Freeways and Likelike and Pali Highways, generally parallel the coastline and carry Ewa-Koko Head traffic. Oahu has three state freeways:

- H-1 Freeway, extending from Ewa to Waialae/Kahala;
- H-2 Freeway, servicing traffic between Mililani/Wahiawa and Pearl City; and
- H-3 Freeway, carrying traffic between Windward Oahu and Pearl Harbor.



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

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Scale: 0 .75 1.50 mi

Scale: 0 1.25 2.5 km

Existing Highway System

Figure 3.2-1

Average daily traffic (ADT) indicates the level of roadway usage at representative points on the roadway. The H-1 Freeway is the most traveled freeway on Oahu, with ADT of 216,966, measured between the Waiau and Halawa Interchanges (traffic in both directions). ADT on H-2, south of Kipapa Bridge, is 78,858. The lowest ADT is 39,605, recorded on H-3, north of Halawa Interchange. (Traffic Survey Data, Island of Oahu, 2000).

Route 78 (Moanalua Road) serves as an H-1 Freeway bypass from the Kahauiki Interchange in Kalihi to the Halawa Interchange. It then continues as an arterial roadway, nearly parallel to Kamehameha Highway, winding through Aiea and ending in Pearl City at Waimano Home Road. Motorists traveling between Kahala and Hawaii Kai use Kalanianaole Highway. Pali and Likelike Highways traverse the Koolau Mountains, connecting the downtown area with Windward Oahu (Kailua and Kaneohe). Additional roads carry regional and local traffic.

This road network serves many travel markets, including home to work trips from residential areas in Central and Leeward Oahu to Downtown, Honolulu International Airport to Waikiki, and goods distribution from Honolulu Harbor.

Level of Service F (congested conditions) with characteristic stop-and-go traffic, is common during the morning and afternoon peak hours on the major roadways, particularly on the H-1 Freeway from the Waiawa Interchange (near the junction of H-1 and H-2) to the University of Hawaii area. Signalized routes, like Nimitz Highway, also are congested, typically requiring more than one traffic signal cycle to clear intersections and with long vehicle queues during peak periods.

Based on existing peak hour traffic volumes, the transportation corridors Ewa of Downtown Honolulu are the most constrained, with corridor deficiencies ranging from 2,500 to 4,000 vehicles per hour (vph). Other corridors, such as the Trans-Koolau and East Honolulu corridors, experience peak period congestion but not to the same degree as the primary transportation corridor.

To avoid peak-hour congestion, many motorists have shifted their time of travel, resulting in extended peak traffic hours. Weekday morning and afternoon peak traffic conditions typically last two to three hours each. Mid-day weekend traffic conditions also can resemble the weekday peak period conditions.

Recent improvements have provided better mobility for buses and vehicles with two or more passengers. The zipper lane, a contra-flow freeway lane created by using movable concrete barriers, has created a relatively high-speed morning peak period lane on the H-1 Freeway between Waiawa Interchange and Pearl Harbor Interchange. This lane has helped reduce travel time between these interchanges, but vehicles in the zipper lane must still rejoin vehicles in the general purpose lanes at Keehi Interchange and face the same delays as other vehicles traveling Koko Head from there.

Physical constraints make the addition of highway capacity within the primary transportation corridor very difficult, particularly in the segment between Middle Street and Downtown. Given the difficulty of adding roadway capacity within this corridor, more innovative approaches to accommodating future growth in travel are needed.

3.2.2 Transit Network

The City and County of Honolulu has an extensive fixed-route bus system (TheBus) that provides islandwide service and is described in the following sections.

1) Bus Routes and Operations

TheBus system began service in March 1971 with a fleet of 67 buses. The active bus fleet for FY 2001 includes 525 vehicles, with 450 buses operating on over 88 routes during peak periods. All buses are equipped with bicycle racks and encourage multi-modal travel.

During the weekdays, morning service begins at 3:16 a.m. and night service ends at 1:54 a.m. On Saturdays and Sundays, TheBus system operates from 3:51 a.m. to 2:03 a.m.

The current bus network consists of five route types:

- Urban Trunk – routes serving the downtown area;
- Urban Collector – routes connecting downtown neighborhoods to urban trunk routes and downtown destinations;
- Suburban Trunk – routes providing direct service between suburban neighborhoods and the downtown area;
- Suburban Feeder – routes connecting smaller suburban neighborhoods to suburban trunk routes; and
- Express – routes providing limited stop service from suburban areas to the downtown area.

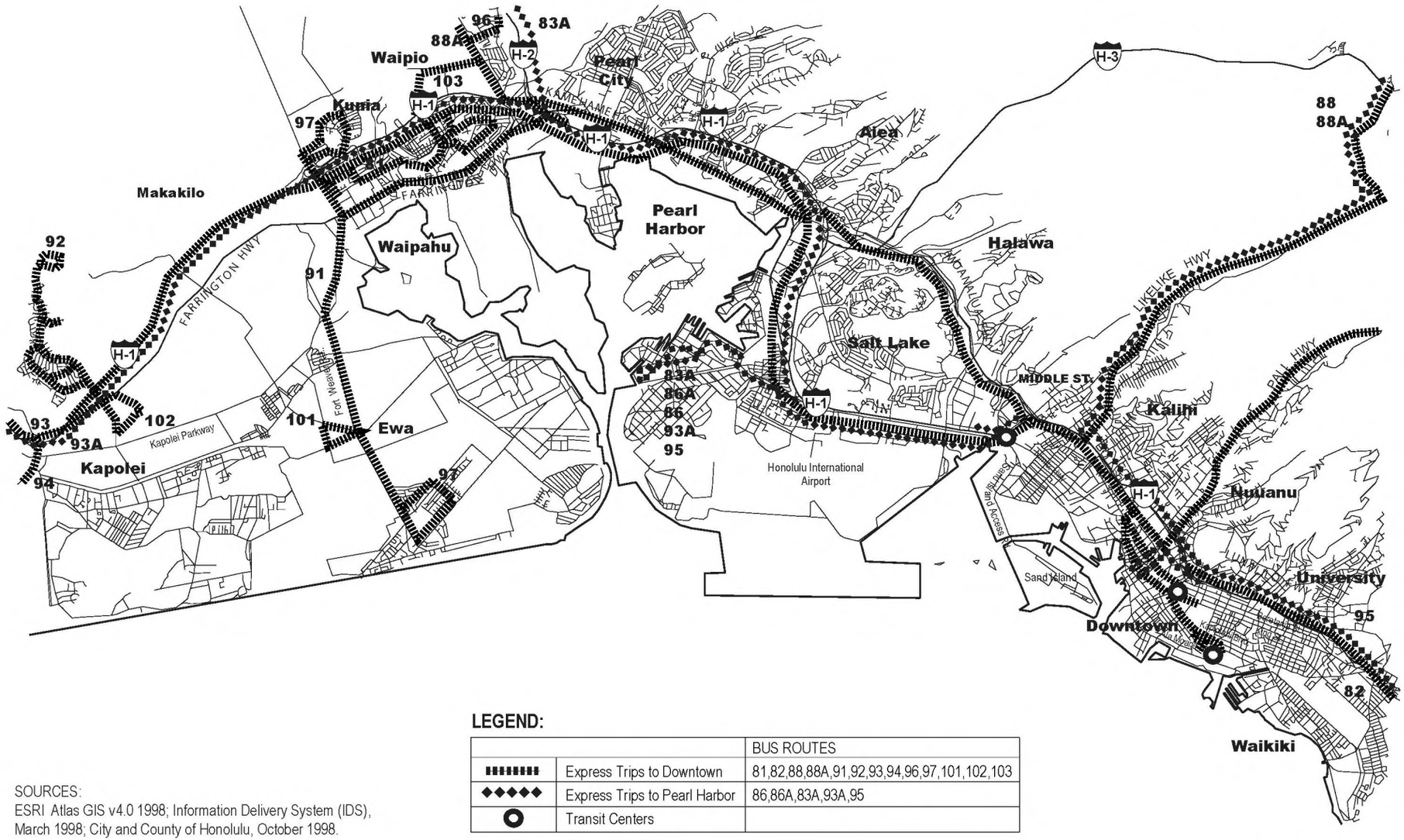
Besides serving different parts of the island, each route type provides different levels of service, with the urban trunk routes providing the highest levels of service and the express routes providing a limited number of trips during peak periods only. With the exception of suburban feeders, nearly all routes provide direct access to the downtown area. This high level of service benefits passengers with limited wait times and provides multiple options for passengers traveling in the downtown area.

Figures 3.2-2A through 3.2-2D show the major existing bus routes. Routes 1 through 32, exclusive of Route 11, serve the central urban area of Honolulu. Route 11 and Routes 47 through 65 provide bus service between Central Honolulu and the outlying suburban and rural areas of Oahu. Routes 70 through 77 provide feeder and shuttle bus service within selected communities of suburban and rural Oahu. Routes numbered 80 and higher provide peak-period express service between suburban residential communities and major employment and activity centers (i.e., Downtown, University of Hawaii at Manoa, Waikiki, and Pearl Harbor). Routes A, B, and C are new limited stop routes.

Service frequency varies with route. In general, during peak periods, five routes operate at 10-minute or shorter headways, and 18 other routes operate at headways of 30 minutes or less. Actual service to patrons along major portions of trunk routes is more frequent, since several routes operate on the same street. Routes with peak period headways of 60 minutes or longer are Routes 70 and 72.

During the peak period, TheBus system is approaching capacity and, in recent years, average operating speeds have declined. Reduced speeds diminish the attractiveness of transit as an alternative to the private automobile, and congestion reduces transit schedule reliability. In Downtown, particularly on King and Beretania Streets, peak-hour bus volumes exceed 75 buses per hour. If bus volumes increase into the 80 to 100 buses per hour range, additional declines in bus speeds can be expected. Closely spaced bus stops are also contributing to the decline in bus speeds. The declines in average operating speeds have been most pronounced for all route types except express.

With the exception of Leeward Oahu, which is the first area to be converted to a hub-and-spoke pattern, the existing bus system operates largely as a "radial" system, with most routes directed Downtown. Most bus routes are oriented to get people into and out of the PUC. A radial system is appropriate for trips to and from Downtown, but is not ideal for other combinations of origin and destination, such as from one suburban area to another. In addition, as a result of the radial bus network configuration, the major Ewa-Koko Head streets in Downtown carry not only the urban trunk routes but also urban collector routes. Duplication of service



LEGEND:

		BUS ROUTES
▮▮▮▮▮▮▮▮	Express Trips to Downtown	81,82,88,88A,91,92,93,94,96,97,101,102,103
◆◆◆◆◆	Express Trips to Pearl Harbor	86,86A,83A,93A,95
○	Transit Centers	

SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

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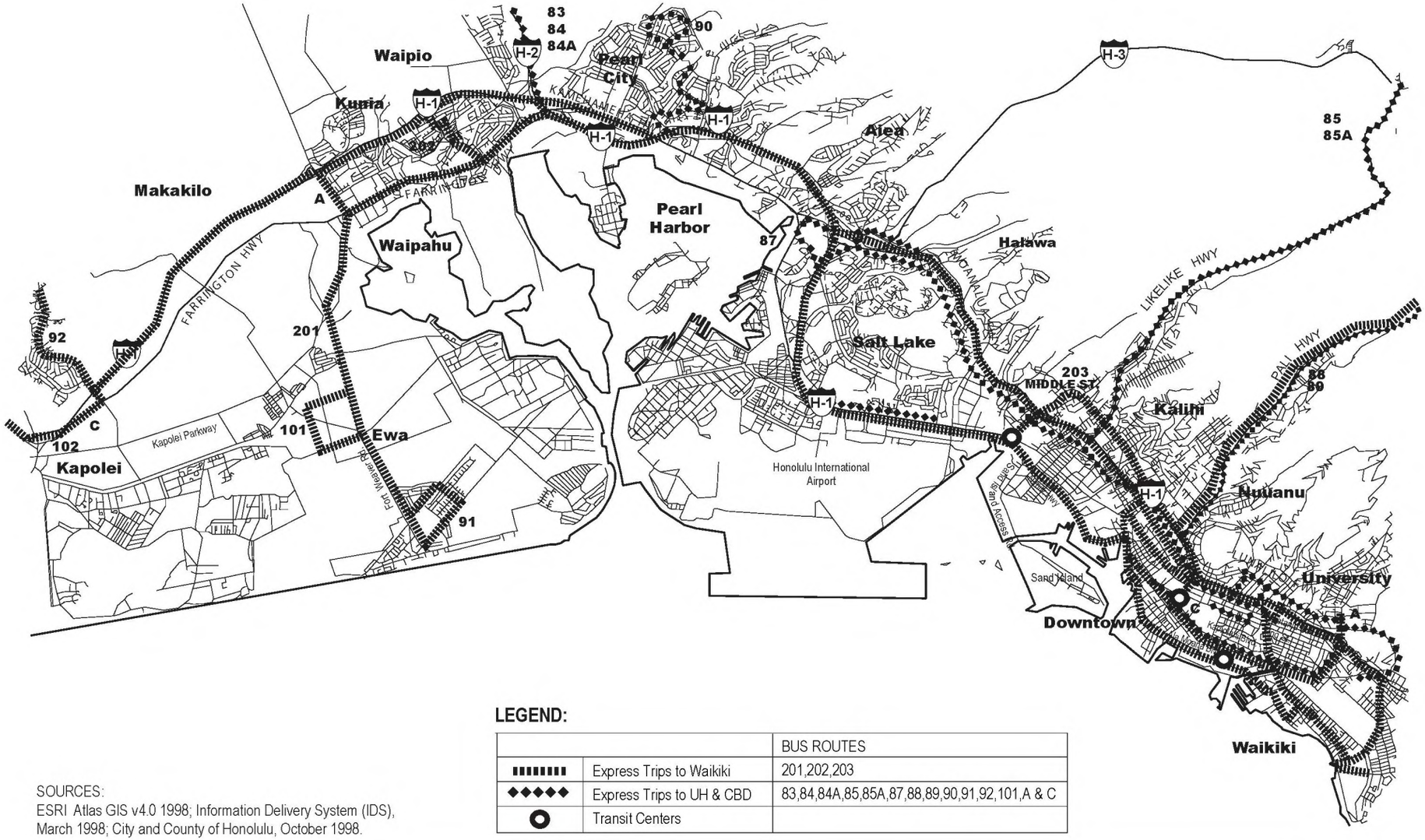
Scale: 0 1.25 2.50 mi

Scale: 0 2.0 4 km

Existing Express Bus Routes: Downtown / Pearl Harbor

Figure 3.2-2A



LEGEND:

		BUS ROUTES
▮▮▮▮▮▮▮▮	Express Trips to Waikiki	201,202,203
◆◆◆◆◆	Express Trips to UH & CBD	83,84,84A,85,85A,87,88,89,90,91,92,101,A & C
○	Transit Centers	

SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

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Scale: 0 1.25 2.50 mi

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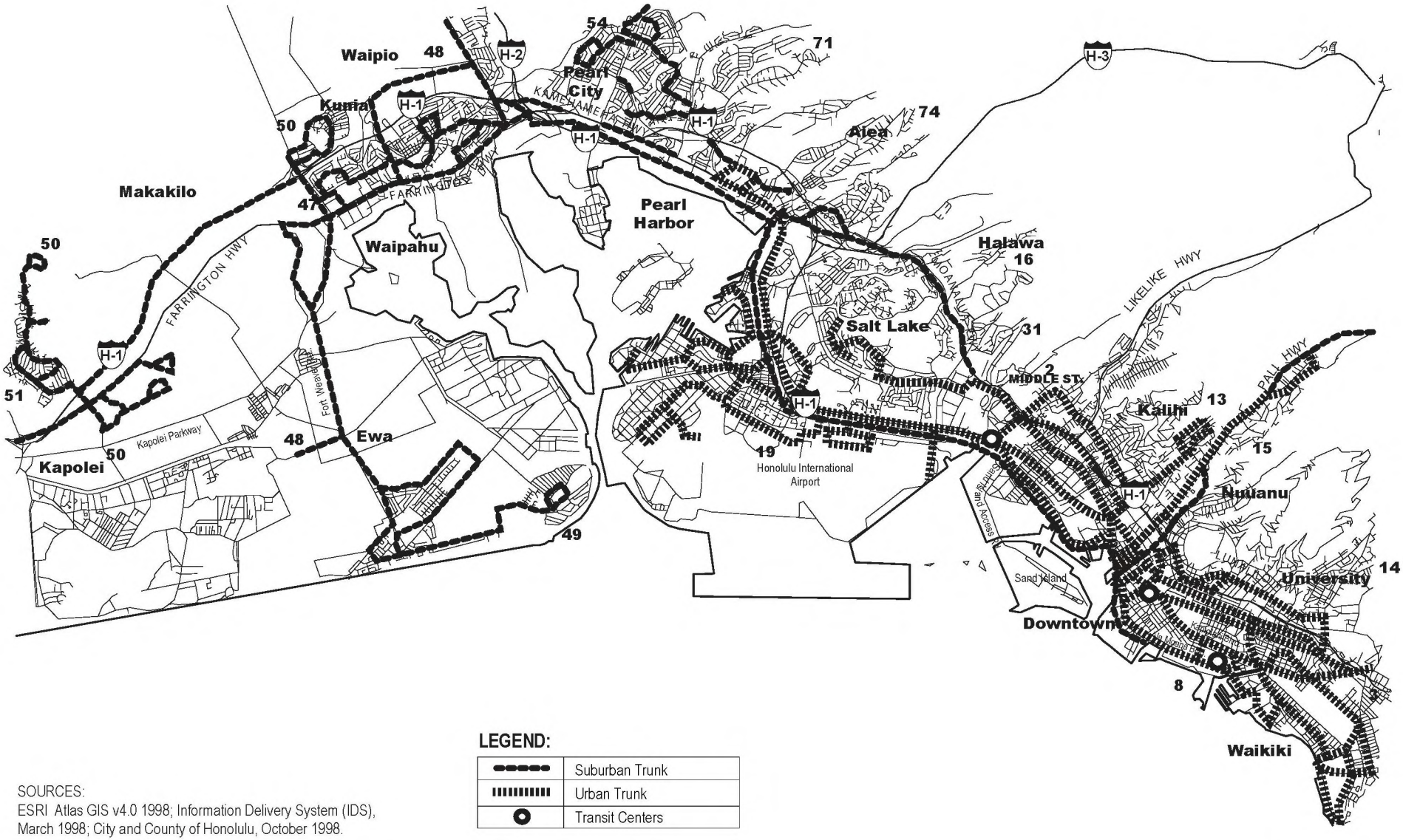
Existing Express Bus Routes: UH, Downtown and Waikiki

Figure 3.2-2B



LEGEND:

▬▬▬	Suburban Trunk
▮▮▮▮▮▮▮▮▮▮	Urban Trunk
⊙	Transit Centers

SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

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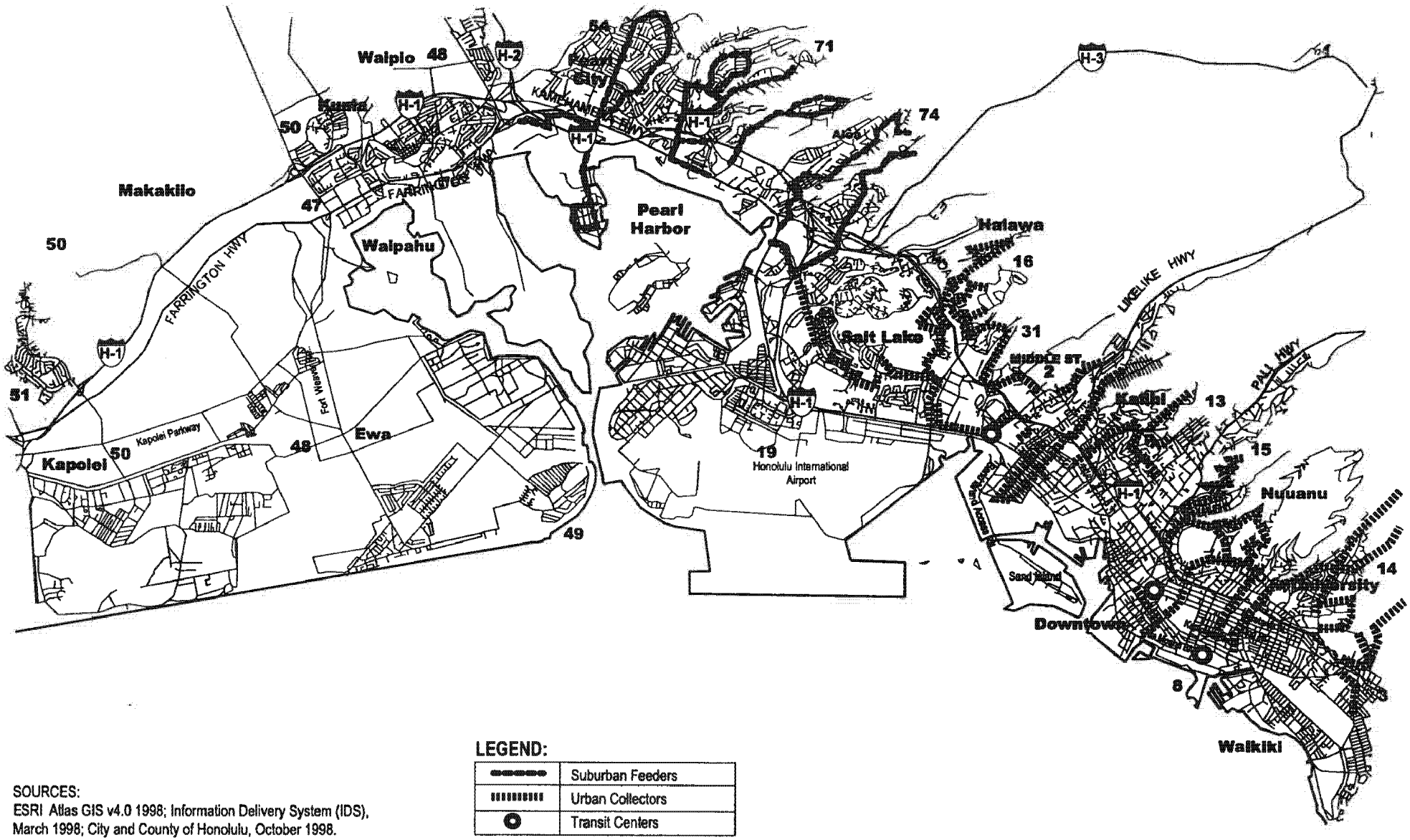
Scale: 0 1.25 2.50 mi

Scale: 0 2.0 4 km

Existing Local Bus and Trunk Routes: Suburban Trunk and Urban Trunk

Figure 3.2-2C



LEGEND:

▬▬▬	Suburban Feeders
▪▪▪▪▪▪▪▪▪▪	Urban Collectors
◉	Transit Centers

SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

N

Scale: 0 1.25 2.50 mi

Scale: 0 2.0 4 km

Existing Local Bus & Trunk Routes: Suburban Feeders and Urban Collectors

Figure 3.2-2D

along these corridors provides greater convenience for passengers with buses passing through more frequently. However, this duplication is operationally not efficient and results in slower travel through the corridor.

To improve operating efficiency, special lanes have been constructed and/or designated for use only by buses and other high occupancy vehicles (HOV). Priority-lane operations include the Kalakaua Avenue bus lane, the H-1 Freeway HOV/bus lane, the Hawaii Kai Drive/Kawaihae Street bus lane, the Kalanianaole Highway HOV/bus lane and the Moanalua Freeway HOV/bus lane. Within Downtown, the half-mile-long Hotel Street Transit Mall also facilitates bus operations.

The Hub-and-Spoke Bus Route Revision Program is a further means to improve operating efficiency through the corridor. Currently underway, this program is a major overhaul of the existing bus service operations. Starting with Leeward Oahu, the program goal is to convert the existing, primarily radial bus route architecture into a hub-and-spoke system that connects the different networks throughout the island. Such a system includes limited bus stop service all day long and enhanced local and neighborhood circulator services. All 18 Leeward Oahu routes were converted in 2000. All 20 Central Oahu routes are scheduled to be converted in 2003. The PUC routes will start the changeover process during fiscal year 2003.

Table 3.2-1 shows the number of daily trips, the revenue hours and estimated daily boardings by route type. Approximately 50 percent of the total estimated daily ridership uses an urban trunk service along the Ewa-Koko Head arterials of the central portion of the PUC. However, all suburban trunk routes have ridership levels ranked in the top 25 for the system.

TABLE 3.2-1
SUMMARY OF BUS ROUTE TRIPS, REVENUE HOURS AND ESTIMATED DAILY BOARDINGS

Route Type	Daily Trips		Revenue Hours		Estimated Daily Boardings	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Urban Trunk	1,449	35%	1,392.50	39%	102,676	50%
Urban Collector	541	13%	266.05	7%	11,568	6%
Suburban Trunk	902	22%	1,041.95	29%	50,893	25%
Suburban Feeder	629	15%	238.30	7%	7,419	4%
Express	246	6%	285.25	8%	10,267	5%
City/CountyExpress!	350	9%	373.85	10%	24,251	12%

Source: Oahu Transit Services, Inc. (OTS) March 2002.

2) Transit Travel Times

On TheBus system, there is a large difference in travel times for peak hours and off-peak hours. Table 3.2-2 provides examples of the travel time differences between peak and off-peak trips.

According to the Technical Paper on Current Transit Quality of Service in the Primary Corridor (March 1999), the existing bus system traveling through Downtown Honolulu is convenient, having many bus choices and frequent service. However, such a high level of service is limited to travel within Downtown during peak periods. For example, limited stop express buses from outlying areas are not available during off-peak hours, requiring passengers to catch local buses with longer travel times. Passengers must also transfer more often at central downtown stops to catch the buses to their final destinations. In general, the furthest distances take the most time to travel not only because of the distance itself, but also because there are more bus stops during the trip.

TABLE 3.2-2
ESTIMATED TRAVEL TIMES (MINUTES)

Origin	Destination	Express Routes – Peak	Non-Express Routes – Off-Peak	City/County Express! Avg. All Day
Ewa	Downtown Honolulu	58	81	
Waipahu	Downtown Honolulu	58	80	58
Makaha	Downtown Honolulu	81	107	81
Pearl City	Downtown Honolulu	40	46	46
Kaneohe	Downtown Honolulu	40	55	

Source: Technical Paper on Current Transit Quality of Service in the Primary Corridor, Parsons Brinckerhoff Inc., March 1999. City/CountryExpress! travel times taken from OTS March 2002 sign-up data.

Moreover, current bus scheduling does not coordinate the timing of transfers. As a result, trips requiring transfers often take longer than if they were continuous trips, making bus service less attractive for such trips. Part of the hub-and-spoke conversion is to schedule the bus arrival times at transit centers to reduce transferring times.

3.2.3 Travel Patterns

Resident households, port operations, the airport, other commercial activities, and visitors are the generators of travel on Oahu. Of these travel components, travel by members of resident households represents well over 90 percent of traffic volumes and transit ridership. This section documents current travel patterns of resident households in terms of their geographic orientation, travel purpose, and travel mode.

The information for all travel forecasts has been derived from the travel forecasting procedures maintained by OMPO, the regional transportation planning agency for the island. These procedures simulate the choices made by residents, businesses, and visitors regarding the nature, number, mode, time-of-day, and geographic orientation of trips that are made on a typical weekday. The procedures have been developed based on data obtained in extensive surveys of Oahu households, transit riders, and air passengers.

Estimates using these procedures indicate the amount of travel between different parts of the island, the share of this travel that occurs on different modes (autos, carpools, buses, and walking), and the traffic volumes and transit ridership that result on individual streets and transit lines. The following sections summarize the 2000 estimates using these procedures. The analysis is based on February 28, 1999 land use information the DPP prepared and provides a baseline for comparison with all future-year forecasts.

The summaries are based on 23 planning districts that consist of the 762 small subareas of the island, called "transportation analysis zones" (TAZs), used by computerized travel demand modeling programs. The planning districts for Oahu are the following:

- Downtown
- Kakaako
- Ala Moana
- Beretania
- Makiki
- Waikiki
- McCully
- UH Manoa
- Kaimuki
- Iwilei
- Kalihi
- Airport
- Salt Lake
- Aiea
- Waipahu
- Mililani
- Ewa
- Waianae
- North Shore
- Koolauloa
- Kaneohe
- Kailua
- East Honolulu

Modeling programs estimate the number of trips between each pair of zones and then allocate these zone-to-zone trips to the available travel modes, highway facilities, and transit services. Trips and transit share are analyzed in the "production-attraction" format. Productions are defined to be at the residence while attractions are at the workplace or other non-home location. A worker, who travels from home to work and then returns home makes two trips, both produced at the residence and attracted to the workplace. This format therefore yields summary tables in which predominantly residential areas have many more productions than attractions, while employment areas have many more attractions than productions.

1) Travel by Resident Households

The 2000 travel patterns of permanent Oahu residents were estimated for a typical weekday for travel to/from work and for all other travel purposes, respectively. "Home-based-work" trips are summed across all travel modes. These trips include travel made directly between home and work (and between work and home) but exclude the six to seven percent of work travel that involves an intermediate stop (for shopping or day-care pick-ups, for example). The estimate indicates that Oahu residents on a typical weekday make about 552,500 direct work trips, equivalent to about 276,000 workers making one trip to work and a second to return home. Not all workers travel to work on a typical weekday because of part-time employment, vacations, sick leave, business travel, and shifted work schedules (with two weekdays off rather than the weekend off). Further, some workers make intermediate stops during their work trips and are therefore counted in other types of trips.

Of the 552,500 daily work trips, approximately 106,700 work trips (19 percent) are attracted to jobs in Downtown, by far the largest single employment concentration on Oahu. Large numbers of work trips are also attracted to the Airport/Pearl Harbor area, Kakaako, and Waikiki. Large volumes of work trips are produced in the residential areas within Aiea, Mililani, Kalihi, and Kaneohe.

The estimated distribution of work travel indicates that Downtown tends to be the most common workplace location for residents of the urban core of Oahu. The largest single travel market to jobs in Downtown is from the Kalihi district, which is both close to Downtown and heavily, populated. Residents of areas that are more distant from Downtown tend to find employment more frequently in their own district (as with Ewa, the North Shore and Koolauloa) or in a significant employment center – often a military base – as with Salt Lake, Mililani, Kaneohe, and Kailua.

Oahu residents make slightly over 2,000,000 trips for all other purposes – such as school, shopping, and recreation –for all travel modes on a typical weekday. Because these trips are generally much shorter than for work travel, the most likely location of these activities is within the same district as the residence. This effect is particularly true for the larger, outlying districts where more than 60 percent of non-work travel remains within the district (as in Mililani, Waianae, Kaneohe, and Kailua).

2) Travel on Transit Services by Resident Households

This section discusses the 2000 estimated trips using transit services on a typical weekday for work and for all other purposes. The transit trips are "linked" through any transfers made along the way. Thus, the total number of boardings (or "unlinked" trips) on transit buses associated with travel by Oahu residents is approximately 15 percent higher than the number of linked trips. Travel by visitors increases the number of boardings by another 15 percent, almost entirely on bus services within Waikiki and to Ala Moana Center.

Some 95,700 daily work trips use the bus system, approximately 17 percent of all home-based-work trips. As expected, the largest concentration of trips involving transit is to workplaces in Downtown Honolulu. The high share of downtown workers who use transit – 35 percent – presumably results from high parking costs, excellent bus service, and the relatively large number of downtown workers who live in nearby residential areas that also enjoy excellent bus service. Large transit volumes also occur to jobs in Kakaako and Waikiki,

while transit carries a much smaller share of workers traveling to areas outside the urban core. The transit share of travel produced from various residential areas is relatively constant, ranging primarily between 13 and 18 percent. These moderate shares are the products of very high transit shares from every residential area to Downtown and the urban core, combined with much lower shares to other areas. Variations in transit shares are tied to the average income and auto-ownership levels of various residential areas (Waikiki, Waipahu, and Iwilei), as well as the presence of nearby military facilities to which transit travel is not competitive (Airport and Mililani).

Oahu residents on a typical weekday make approximately 93,100 non-work transit trips. While Downtown is again the most common single destination for these transit trips, the concentration of non-work transit travel to Downtown is much less pronounced than it is for work trips. This pattern is the result of the nature of non-work travel (generally shorter and to areas closer to home than Downtown) and the households who choose transit for non-work travel (high concentrations of elderly, students, and lower-income persons).

3) Automobile Travel by Resident Households

The estimates for 2000 also show the number of trips that would be made using automobiles, based on auto person travel on a typical weekday for work and for all other purposes. There were approximately 942,500 daily work-related auto person trips in 2000. As expected, the largest number of these trips are attracted to Downtown. Other significant areas attracting work-related auto person trips are McCully, Iwilei, Pearl City/Aiea, and Mililani. Areas producing large shares of work-related trips are Pearl City/Aiea, Waipahu, Mililani, Ewa, Kaneohe, and Kailua. A key pattern to note is that there are significant suburban areas (Pearl City/Aiea, Mililani) attracting work trips as well as the more urban areas (Downtown, McCully, Iwilei).

There were approximately 1,339,000 daily non-work auto person trips in 2000. The larger non-work trip attractors are oriented more toward the suburban areas such as Pearl City/Aiea, Waipahu, Mililani, Kaneohe, and Kailua. Significant non-work attraction areas are Downtown, McCully, and Iwilei. Areas producing non-work auto person trips are Salt Lake, Pearl City/Aiea, Waipahu, Mililani, Kaneohe, Kailua, and East Honolulu.

3.2.4 Bicycle Travel and Pedestrian Facilities

The Honolulu Bicycle Master Plan (April 1999), sponsored by the City and County of Honolulu, and Bike Plan Hawaii (April 1994), a Statewide bike plan, inventoried existing facilities and provided recommendations to enhance bicycle travel (refer to Figure 3.1-4A through 3.1-4C).

About 100,000 bicycles are registered in Honolulu, and 1.3 percent of employees (10,500 persons) bike to work (1990 Census). There are 24.8 miles of bikeways within the PUC, the longest being the Pearl Harbor Bike Path extending from near Aloha Stadium to Waipio Peninsula (Waipahu). The DTS installed bicycle racks on downtown sidewalks to make it easier to bike to work, and placed bicycle racks on all of its buses. Hookups to the bus bicycle racks now exceed 1,100 per day (Oahu Transit Services, Inc., November 2001).

Oahu has a developed pedestrian trail system, several components of which exist entirely or in part within the project area. The study area also contains other areas of concentrated pedestrian activity, including pedestrian malls and public beach accesses. For example, there is heavy pedestrian traffic daily in and around areas such as Downtown, Waikiki, Ala Moana, and University. On Kalakaua Avenue, the City and County of Honolulu widened the sidewalk to enhance the pedestrian experience along Kuhio Beach (Kuhio Beach Park Expansion/ Kalakaua Promenade, Signing and Striping Plan, City and County of Honolulu,. August 18, 1999). The City and County also developed the Historic Waikiki Trail that winds through Waikiki, taking pedestrians to various sites of historic importance (Office of Waikiki Development, Mayor's Office, March 2000).

3.2.5 Parking

The high cost of land and development densities in Downtown Honolulu and Waikiki make it important to preserve or improve existing parking conditions, either by increasing supply or reducing the demand for spaces. Parking prices indicate that the existing parking spaces are in high demand. Parking costs published by the Downtown Planet in November 2001 showed that short-term weekday parking rates in the Downtown/Chinatown area range from 50 cents per half hour to $3.00 for every 20 minutes. Monthly rates can be as much as $250, especially in the center of Downtown, although more outlying parking garages such as those on the edge of Chinatown cost as little as $75.

Public parking can be categorized as either off-street or on-street. Off-street parking is those spaces available in parking structures or designated parking lots. These parking facilities may be privately or publicly operated. On-street parking refers to curbside spaces that may or may not be marked with meters or painted spaces. Metered parking fees accrue to the City and County of Honolulu.

The availability of parking varies by neighborhood and by street. Most travel destinations tend to have associated off-street parking facilities. Metered and unmetered on-street parking is also available throughout the entire study area, particularly at major destinations such as Chinatown, Downtown, Ala Moana, and Waikiki. In general, parking at major destinations tends to be metered and in higher demand than those at less trafficked areas. On-street parking also tends to be restricted to certain non-peak hours of the day, especially where those spaces are in the curbside lanes of roads with rush hour traffic. In areas of high parking demand, many parking vendors offer off-street parking opportunities to the public, including municipally operated parking garages.

3.2.6 Loading Zones

Vehicle loading zones are curbside areas set aside for passenger or cargo loading and unloading. They can also include some bus and shuttle stops. Some loading zones are restricted to use only during certain hours of the day, while others are unrestricted.

Loading zones are located throughout the city, but their frequency and sizes vary. Locations with highly used loading zones tend to be in key areas like Downtown and Waikiki. Due to the limited parking opportunities and the frequency of passenger loading and unloading in these areas, loading zones serve an important public function in the congested metropolitan setting. In contrast, most of the project corridor Ewa of Middle Street tends to be less populated and centered around major highways such as H-1, which contain no significant loading zones.

Waikiki has a significant number of loading zones. The existing parking and loading restrictions in Waikiki are shown on the signing and striping plans for Kalakaua, Kapahulu and Kuhio Avenues, contained in DTS Bulletin Number 4 entitled the Kalakaua Avenue Safety and Beautification Project (circa 1988). This bulletin states that the restrictions were initiated on May 26, 1987. In general, private vehicles are restricted from stopping, standing, or parking along Kalakaua Avenue and Kuhio Avenue. Commercial passenger and baggage loading and unloading along curbs are allowed on both sides of Kuhio Avenue and on the makai side of Kalakaua Avenue, except between the hours of 3:30 p.m. and 5:30 p.m. and where prohibited. There is no restriction on loading and unloading in loading bays at any time. Freight loading and unloading is allowed from 10:00 p.m. to 9:30 a.m. on both sides of Kuhio Avenue and from 10:00 p.m. to 9:00 a.m. on the makai side of Kalakaua Avenue. No stopping, standing, loading, or unloading is permitted on the mauka side of Kalakaua Avenue except freight vehicles with permits between the hours of 10:00 p.m. and 9:00 a.m. Kapahulu Avenue has a roughly 200-foot segment on the Ewa side that is restricted to loading and unloading only on Mondays through Saturdays between 7:00 a.m. and 11:00 p.m.

On Alakea Street between King and Hotel Streets, passenger and freight loading takes place on the Ewa curb at all hours of the day. This block is marked as “No Parking, Tow Away Zone” which allows commercial

vehicles with permits to make brief stops for loading and unloading operations. On Kaaahi Street, freight loading occurs along both sides of this dead end street in the Iwilei area.

3.3 NEIGHBORHOODS

The primary transportation corridor spans 18 identifiable neighborhoods (see Figure 3.3-1 and Table 3.3-1). Their demographics, community resources, and location relative to the alternatives characterize these neighborhoods below.

3.3.1 Demographic Description

1) Population Trends

Population growth by neighborhood from 1990 to 2000 is shown in Table 3.3-1. The total 2000 Oahu population was 876,156, which was about five percent greater than the 1990 population. In the 1990s, the average annual growth rate was about one-half percent, based on an estimated 1997 islandwide population of approximately 870,000. Nevertheless, during the 1990s, certain neighborhoods experienced substantial population growth.

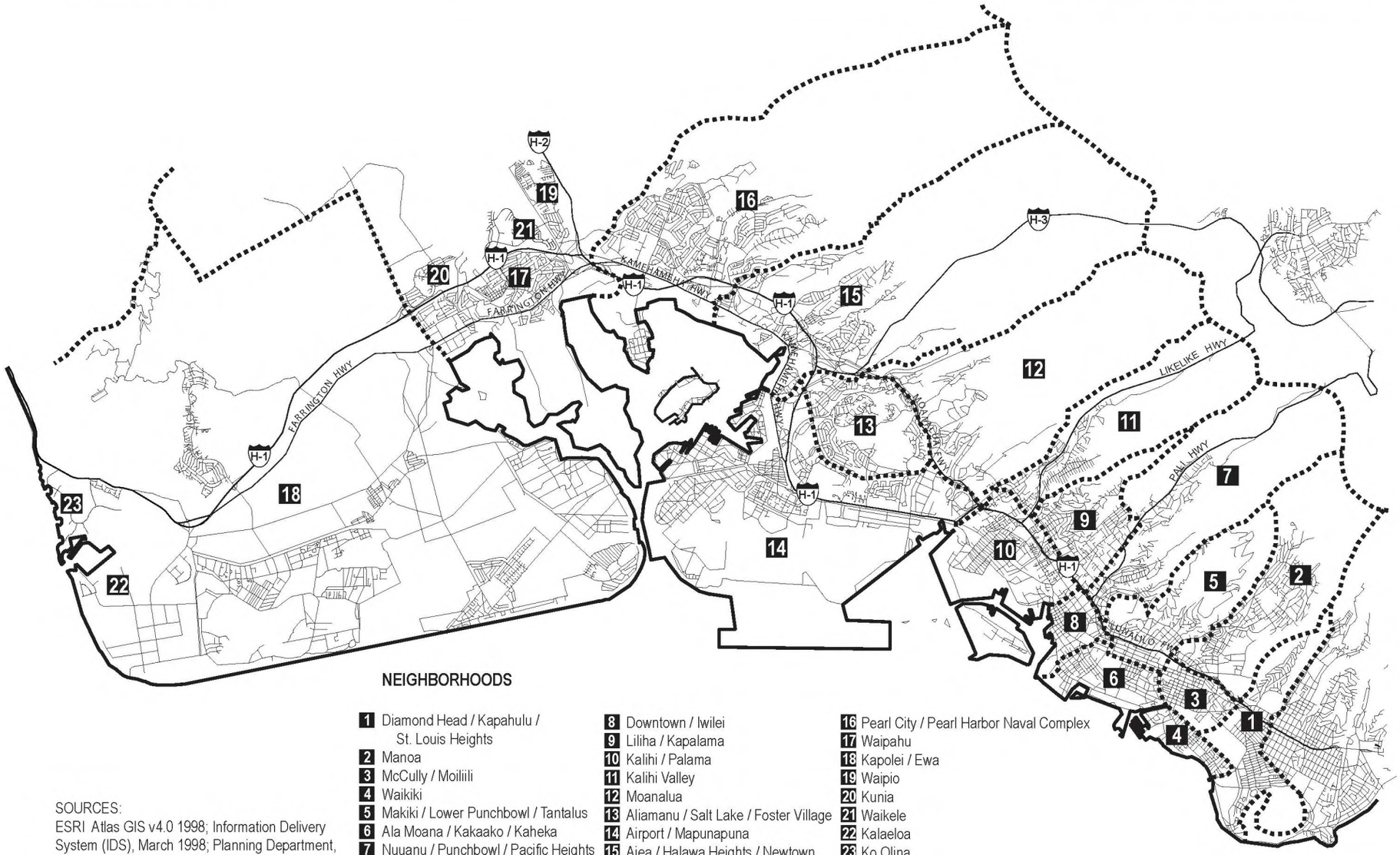
For example, Waipahu/Waikele/Kunia/Waipio and Ewa/Kapolei grew 22 and 97 percent, respectively, during the 1990s. These neighborhoods are in the western part of the corridor where former agricultural land is being converted to urban uses. Housing in Ewa and Central Oahu tends to be more affordable than in the PUC, resulting in a much higher growth rate in these outlying areas compared to the rest of the island. This trend is not changing in the 2000s, as most new housing is being built in Ewa and Central Oahu.

Growth areas in the PUC were clustered in Ala Moana/Kakaako and Downtown (see Table 3.3-1). Population growth in these neighborhoods resulted mostly from development of high-rise apartment buildings. Little to moderate growth occurred in the Pearl City, Makiki/Tantalus/Lower Punchbowl, Nuuanu/Punchbowl/Pacific Heights, and Kalihi Valley neighborhoods. Neighborhoods that experienced no growth or decreases in population from 1990 to 2000 were mostly in the eastern part of the PUC, such as Manoa, McCully/Moiliili, Waikiki and Diamond Head/Kapahulu/St. Louis Heights, and in the Aiea, Aliamanu/Salt Lake, Liliha/Kapalama Kalihi/Palama, Moanalua, and Airport/Hickam/Pearl Harbor Naval Station neighborhoods. Some of these neighborhoods are older communities, contain mostly single-family residences and are in transition from residential to commercial or industrial uses. Also, an aging population characterizes some of the neighborhoods.

2) Ethnicity

In 1990, Whites made up 32 percent of the islandwide population. They were followed by Japanese (24 percent), Filipino (14 percent), Hawaiian/part Hawaiian (11 percent), and Chinese (8 percent). The 2000 Census allowed people to choose their ethnicity among two or more races, which makes it difficult to compare this information with the 1990 census. Table 3.3-2 presents the 2000 ethnicity by neighborhood. It presents only the ethnicity data for those indicating one race on the Census form because the majority of people completing the Census indicated only one race. For example, on Oahu 80.1% indicated one race and 19.9% indicated two or more races. It should be noted that because people could indicate more than one race, the percentages will not total 100.

Ethnic mix varies by neighborhood. Neighborhoods with proportionately higher populations of White residents are Waikiki and Airport/Hickam/Pearl Harbor Naval Station. Waikiki has a high transient population. The Airport neighborhood encompasses mostly Air Force and Navy military housing. Asians are the largest ethnic group islandwide. Fifteen of the neighborhoods have Asian populations of 50% or greater. The exceptions are Waikiki, Airport, and Moanalua. Native Hawaiians and other Pacific Islanders are less numerous in the



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; Planning Department, City and County of Honolulu, 1998.

N Scale: 0 .5 1.0 1.5 2.0mi

Neighborhoods

Figure 3.3-1

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corridor than the groups previously described. The neighborhoods with the highest proportion of Hawaiian and other Pacific Islanders, exceeding the nine percent islandwide proportion, are Kalihi Valley, Kalihi/Palama, and Nuuanu/Punchbowl. The Papakolea homestead area, a Department of Hawaiian Home Lands (DHHL) property, is located in the Nuuanu/Punchbowl neighborhood.

TABLE 3.3-1
POPULATION GROWTH BY NEIGHBORHOOD
(1990 TO 2000)

Neighborhood	Population		Percent Change
	1990	2000	
Diamond Head/Kapahulu/St. Louis Hts.	20,945	19,137	-8.6%
Manoa	21,496	21,184	-1.5%
McCully/Moiliili	28,466	26,122	-8.2%
Waikiki	19,768	19,720	-0.2%
Makiki/Tantalus/Lower Punchbowl	29,416	30,145	2.5%
Ala Moana/Kakaako	10,978	14,186	29.2%
Nuuanu/Punchbowl/Pacific Heights	16,254	16,494	1.5%
Downtown/Iwilei	11,601	14,575	25.6%
Liliha/Kapalama	21,221	19,905	-6.2%
Kalihi/Palama	40,147	37,987	-5.4%
Kalihi Valley	17,798	17,937	0.8%
Moanalua	12,256	11,748	-4.1%
Aliamanu/Salt Lake/Foster Village	37,498	36,572	-2.5%
Airport/Hickam/Pearl Harbor Naval Station	26,762	18,163	-32.1%
Aiea	32,553	31,221	-4.1%
Pearl City/Pearl Harbor Complex	46,928	47,794	1.8%
Waipahu/Waikele/Kunia/Waipio	51,174	62,402	21.9%
Ewa/Kapolei/Makakilo	26,898	53,099	97.4%
Total Oahu	**836,231**	**876,156**	**4.8%**

Source: 2000 Census SF1 File; Planning Davison, Honolulu Department of Planning and Permitting, January 2002.

3) Families and Households

Household and family characteristics by neighborhood are shown in Table 3.3-3. Seventy-five percent of the households on Oahu in 1990 were families, which are defined as two or more persons related by blood, marriage, or law living together. This percentage dropped to 72 percent in 2000. Neighborhoods with the highest percentage of families are mainly in the western half of the corridor, Ewa of Moanalua, and include Pearl City, Waipahu and Ewa as well as Moanalua and Airport/Hickam/Pearl Harbor areas. The 2000 census indicates that these community characteristics have not changed. These neighborhoods have higher percentages of low-density housing (see Section 3.1.3), have generally younger inhabitants based on median age, and have larger household sizes.

Neighborhoods with lower percentages of families and smaller household sizes are generally located in the older parts of the central Urban Core, such as McCully/Moiliili, Makiki/Tantalus, Downtown, and Ala Moana/Kakaako. These neighborhoods have higher percentages of multifamily housing.

Educational attainment among adults in the corridor is similar to the overall Oahu population. However, certain neighborhoods, such as Manoa, Waikiki, and Makiki/Tantalus, substantially exceed the islandwide profile for high school and college graduates. Neighborhoods with a substantially lower distribution of educational attainment compared to the islandwide distribution are Kalihi/Palama and Kalihi Valley.

TABLE 3.3-2
ETHNICITY BY NEIGHBORHOOD – 2000[1]

Neighborhood	White	Black	American Indian	Asian	Native Hawaiian	Other	Two or More Races
Diamond Head/Kapahulu/St. Louis Heights	21%	0.5%	0.1%	55%	7%	0.7%	16%
Manoa	21%	0.7%	0.2%	59%	4%	0.7%	15%
McCully/Moiliili	15%	1%	0.2%	60%	7%	0.9%	16%
Waikiki	44%	2%	0.3%	39%	5%	1%	10%
Makiki/Tantalus	22%	1%	0.2%	54%	6 %	1%	16%
Ala Moana/Kakaako	19%	1%	0.2%	62%	4%	0.7%	12%
Nuuanu/Punchbowl	16%	0.5%	0.1%	53%	12%	0.8%	19%
Downtown	22%	1%	0.2%	58%	6%	0.7%	12%
Liliha/Kapalama	8%	0.3%	0.1%	67%	8%	0.3%	16%
Kalihi/Palama	4%	0.6%	0.1%	66%	14%	0.7%	14%
Kalihi Valley	6%	0.4%	0.1%	66%	12%	0.7%	16%
Moanalua	22%	5%	0.2%	46%	7%	2%	18%
Aliamanu/Salt Lake	19%	6%	0.3%	52%	6%	2%	14%
Airport/Hickam/Pearl Harbor Naval Station	62%	12%	0.6%	11%	1%	4%	9%
Aiea	18%	2%	0.3%	50%	8%	1%	20%
Pearl City	16%	2%	0.2%	56%	6%	1%	18%
Waipahu/Waikele/Kunia/Waipio	8%	2%	0.2%	62%	9%	1%	18%
Ewa/Kapolei/Makakilo	17%	2%	0.2%	50%	7%	1%	23%
Oahu	21%	2%	0.2%	46%	9%	1.3%	20%

Source: 2000 Census SF1 File; Planning Division, Honolulu Department of Planning and Permitting, January 2002.
Note: [1]Does not sum to 100 percent because people could chose more than one ethnicity.

TABLE 3.3-3
HOUSEHOLD AND FAMILY CHARACTERISTICS BY NEIGHBORHOOD – 2000

Neighborhood	Median Age	Households (HH)	Families (Percent of HH)	Average HH Size
Diamond Head/Kapahulu/St. Louis Heights	42.7	7,698	59%	2.44
Manoa	39.3	7,051	68%	2.59
McCully/Moiliili	38.9	12,670	48%	2.04
Waikiki	42.2	11,397	36%	1.72
Makiki/Tantalus	41.0	14,998	46%	1.97
Ala Moana/Kakaako	42.9	7,797	41%	1.78
Nuuanu/Punchbowl	43.5	6,180	66%	2.63
Downtown	40.9	6,818	41%	1.87
Liliha/Kapalama	44.4	6,495	72%	2.93
Kalihi/Palama	36.3	10,258	75%	3.57
Kalihi Valley	36.5	3,941	85%	4.42
Moanalua	36.0	3,219	87%	3.08
Aliamanu/Salt Lake	33.4	11,732	75%	3.09
Airport/Hickam/Pearl Harbor Naval Station	25.7	5,001	98%	3.32
Aiea	37.6	10,580	71%	2.89
Pearl City	37.7	14,369	82%	3.13
Waipahu/Waikele/Kunia/Waipio	34.1	16,937	81%	3.60
Ewa/Kapolei/Makakilo	30.8	14,324	85%	3.68
Oahu	35.7	286,450	72%	2.95

Source: 2000 Census SF1 File; Planning Division, Honolulu Department of Planning and Permitting, January 2002.

4) Housing Stock

Housing characteristics by neighborhood are shown in Table 3.3-4. Housing of all types on Oahu increased from about 174,000 units in 1970 to over 280,000 units in 1990 to 316,000 in 2000. A majority of the new homes were developed in Ewa and Central Oahu. Most of the housing units are low-density, single-family and townhouse dwellings. In the corridor, low-density neighborhoods are generally clustered in the eastern and western portions. Housing units in central Urban Core neighborhoods are higher densities, and many are in medium to high-rise apartment buildings. These neighborhoods include McCully/Moiliili, Waikiki, Makiki/Tantalus, Ala Moana/Kakaako, Downtown, Kalihi/Palama and Aliamanu/Salt Lake.

Vacancy rates of most neighborhoods ranged from one to three percent in 1990, compared to the two percent islandwide rate. The islandwide vacancy rate rose to five percent in 2000. McCully/Moiliili had a 7 percent vacancy rate followed by Manoa (3 percent) and Waikiki (23 percent).

5) Home Ownership and Stability

Home ownership characteristics are also shown in Table 3.3-4. Oahu has a lower home ownership rate (55 percent) as a result of the high cost of housing in Hawaii. In 2000, home ownership rates across the corridor neighborhoods vary from 71 and 69 percent in Pearl City and Ewa/Kapolei/Makakilo, respectively, to 2, 23, 28 and 29 percent in the Airport area, Downtown, McCully/Moiliili and Kalihi/Palama, respectively. Neighborhoods with high ownership rates tend to be more stable than neighborhoods with higher proportions of renters because resident turnover tends to be less. Also, suburban outlying areas tend to have higher home ownership rates than in central Honolulu. In 2000, the Ewa area had a 70 percent home ownership rate compared to 46 percent for the PUC and 60 percent for Central Oahu.

TABLE 3.3-4
HOUSING CHARACTERISTICS BY NEIGHBORHOOD – 2000

Neighborhood	Housing Units	Vacancy Rate	Home Ownership Rate
Diamond Head/Kapahulu/St. Louis Hts.	8,649	6%	53%
Manoa	7,420	3%	60%
McCully/Moiliili	14,098	7%	28%
Waikiki	18,370	23%	34%
Makiki/Tantalus	16,368	6%	39%
Ala Moana/Kakaako	9,440	8%	32%
Nuuanu/Punchbowl	6,584	3%	59%
Downtown	7,342	6%	23%
Liliha/Kapalama	6,852	3%	57%
Kalihi/Palama	11,108	6%	29%
Kalihi Valley	4,169	3%	60%
Moanalua	3,4,62	2%	50%
Aliamanu/Salt Lake	12,927	6%	46%
Airport/Hickam/Pearl Harbor Naval Sta.	5,627	1%	2%
Aiea	11,044	3%	59%
Pearl City	14,182	2%	71%
Waipahu/Waikele/Kunia/Waipio	17,897	4%	64%
Ewa/Kapolei/Makakilo	15,845	4%	69%
Oahu	315,988	5%	55%

Source: 2000 Census SF1 File; Planning Division, Honolulu Department of Planning and Permitting, January 2002.

6) Income

Income by neighborhood is shown in Table 3.3-5. The 2000 Census income data was not available as of May 2002. Median household income in 1990 for Oahu was $40,581. Certain neighborhoods in the corridor, such as Manoa and Pearl City, had median incomes substantially higher than this islandwide median. Neighborhoods with moderately high median incomes were Nuuanu/Punchbowl, Liliha/Kapalama, Moanalua, Aiea and Waipahu/Waikele/Kunia/Waipio.

Neighborhoods with median incomes substantially lower than the islandwide median were Waikiki, Makiki/Tantalus, Ala Moana/Kakaako, Downtown, Kalihi/Palama, and Airport/Hickam/Pearl Harbor Naval Station. However, the first four of these neighborhoods have smaller average household sizes than the Oahu average, partially explaining the lower median household incomes. Although the Airport neighborhood has a low median income level, it consists mostly of military housing, which is a form of in-kind income. The poverty rate of this neighborhood is only two percent, much lower than the Oahu overall rate. Neighborhoods with high poverty rates are Downtown, Kalihi/ Palama, Kalihi Valley and Waipahu/Waikele/Kunia/Waipio. These areas contain low-income and/or public housing units, have a disproportionate number of elderly residents, and are areas where new immigrants have settled. Low-income means a household income at or below the Department of Health and Human Services guidelines.

Neighborhoods with the highest percentages of households receiving social security and retirement incomes tend to be located in the center of the PUC, such as Liliha/Kapalama, Kalihi/Palama, and Kalihi Valley. These neighborhoods contain a large amount of older housing and long-time residents. Neighborhoods in the western portion of the corridor have lower rates of households with social security and retirement incomes. Neighborhoods with higher rates of households receiving public assistance are Downtown, Kalihi/Palama, Kalihi Valley and Waipahu/Waikele/Kunia/Waipio, the same neighborhoods that have higher than average poverty rates.

TABLE 3.3-5
INCOME AND HOME OWNERSHIP CHARACTERISTICS BY NEIGHBORHOOD – 1990

Neighborhood	Median Household (HH) Income	Families in Poverty (Percent)	Selected Sources of Income (Percent of HH)		
			Social Security	Retirement	Public Assistance
Diamond Head/Kapahulu/St. Louis Hts.	$39,357	4%	11%	8%	2%
Manoa	$51,866	2%	10%	8%	1%
McCully/Moiliili	$31,974	7%	8%	5%	2%
Waikiki	$26,980	6%	11%	8%	2%
Makiki/Tantalus	$33,623	6%	8%	5%	1%
Ala Moana/Kakaako	$25,162	7%	11%	7%	2%
Nuuanu/Punchbowl	$44,199	4%	11%	8%	2%
Downtown	$25,436	10%	7%	4%	4%
Liliha/Kapalama	$43,164	2%	14%	9%	2%
Kalihi/Palama	$25,647	16%	13%	7%	6%
Kalihi Valley	$39,794	13%	12%	8%	5%
Moanalua	$43,706	2%	8%	7%	1%
Aliamanu/Salt Lake	$38,078	4%	4%	6%	2%
Airport/Hickam/Pearl Harbor Naval Sta.	$29,989	2%	1%	0.5%	0.4%
Aiea	$45,585	4%	8%	8%	2%
Pearl City	$55,053	2%	6%	7%	1%
Waipahu/Waikele/Kunia/Waipio	$46,501	8%	7%	6%	4%
Ewa/Kapolei/Makakilo	$40,679	4%	5%	6%	2%
Oahu	$40,581	5%	8%	7%	2%

Source: Neighborhood Profiles, City and County of Honolulu Planning Department (now Department of Planning and Permitting), 1996.

Note: Does not sum to 100 percent because vacant units are included in the calculation.

3.3.2 Community Facilities and Services

Community facilities and services include libraries, shopping centers, churches, police stations, fire stations, schools (public and private), hospitals, and clinics. Parks are discussed in Section 3.11.

Activity centers and growth areas that attract and generate travel exist throughout the study area. Table 3.3-6 lists some of the major activity centers in the corridor by DP AREA.

3.3.3 Cultural Activities

To identify the cultural activities and resources in the study area, a panel of experts was formed and convened on May 24, 2001. Its purpose was to develop a working definition of "cultural practice" in an urban setting and to develop a working definition of the geographic boundary of the study area. The panel included individuals with expertise including cultural anthropology, urban planning, social impact assessment and planning, and ethnography. The definition of "cultural practices" was expanded to include the many traditions and ethnicities of Hawaii. The study corridor was identified, as the area between the H-1 Freeway and the ocean, from Middle Street to Kapiolani Park. Several methods were employed to identify cultural practices and resources, such as using the panel members' and key informants' knowledge, driving and walking through the study area neighborhoods, and obtaining schedules and other publications that provide cultural event information.

The panel was able to identify over 400 cultural practices, which were categorized in the following manner:

- Culturally Significant Districts. Often referred to as Traditional Cultural Properties (see Section 3.10), the only culturally significant districts identified in the study area are Chinatown and the Iolani Palace/King Kamehameha Statue area. Both areas are also listed on the National Register of Historic Places in part or whole. Further details on these two areas are provided in Section 3.10.2.

- Flora Gathered for Lei-Making, Sharing, Ceremonies and Cultural Activities. Flowers, foliage, seeds and other flora materials are gathered from private and public properties throughout the study area.

- Lion Dances and Fireworks Associated with Lunar New Year Celebrations. The streets and sidewalks of Chinatown are the venue for cultural practices during the Lunar New Year.

- Kupuna Iwi. Kupuna Iwi (ancestral bones) in the study area is discussed in Section 3.10.2.

- Parades and Street Festivals. Some of the streets in the study area from Downtown Honolulu to Waikiki are used for parades and street festivals, many of which are annual events. The corridor used most often for parades includes South King Street from Downtown to Punchbowl Street, to Ala Moana Boulevard to Kalakaua Avenue up to Kapiolani Park.

3.4 VISUAL AND AESTHETIC CONDITIONS

An important part of the alternatives development and analysis was the consideration given to the possible visual and aesthetic impacts a future system might have on existing visual resources. The visual impact analysis was based on the Federal Highway Administration's (FHWA's) methodology for visual impact assessment as described in their Publication No. FHWA-HI-88-054 guidelines, Visual Impact Assessment for Highway Projects. Three types of visual resources are discussed in this section: sectors/landscape units, coastal views, and other special view opportunities.

TABLE 3.3-6
MAJOR ACTIVITY SITES IN THE PRIMARY TRANSPORTATION CORRIDOR

Ewa Area	
City of Kapolei	Kalaeloa(former Barbers Point Naval Air Station)
Central Oahu Area	
Royal Kunia Shopping Center	Waikele Center/Waikele Premium Outlets
Waipahu Town	Waipio
Waikele	Kunia
Primary Urban Center Area	
Leeward Community College	West Oahu College
Pearl Highlands Center	Pearl City Shopping Center
Westridge Shopping Center	Pearlridge Center
Pearl Kai Center	Aloha Stadium
Stadium Marketplace and Mall	Bougainville Center
Salt Lake	Pearl Harbor Naval Base
Arizona Memorial	Hickam Air Force Base
Mapunapuna Industrial Area	Honolulu International Airport
Honolulu Community College	Middle Street Industrial Area
Kalihi Kai Industrial District	Kalihi/Palama
Iwilei Industrial District	Sand Island
Honolulu Harbor	Chinatown
Downtown Financial District	Government centers (Federal/State/City)
Queen's Medical Center	Kakaako
Pali Momi Medical Center	Kaiser Medical Center
Victoria Ward Centers	Neal Blaisdell Center
Kapiolani Business District	Ala Moana Park
Ala Moana Center	Fort DeRussy
Waikiki	Honolulu Zoo
Ala Wai Park	Tokai University Pacific Center
Kapiolani Park	University of Hawaii at Manoa
McCully/Moiliili	Chaminade College
Hawaii Convention Center	

Source: Parsons Brinckerhoff, Inc., September 2002.

3.4.1 Sectors and Landscape Units

For ease of analysis, the project area was divided into sectors and landscape units. A "sector" is defined as a large but recognizable geographic entity having generally consistent land use and visual character. Sectors are comprised of smaller components called "landscape units." Thirteen sectors and 70 landscape units along potential alignments were identified in the primary transportation corridor. These sectors and landscape units are described in more detail in the Environmental Baseline Report (Parsons Brinckerhoff, Inc., June 1999).

Visual impacts were identified based on the visual character and visual quality of the landscape units, and how the alternatives are visually compatible with these units. Visual character refers to certain aesthetic attributes such as form, line, color, or texture. Visual quality is the level at which the landscape unit is vivid (memorable), is intact (free from visual encroachment), or has unity (forms a coherent harmonious visual pattern). For more detail on the methodology for analysis, refer to the Environmental Baseline Report.

Landscape units were ranked by visual field assessments on a 10-point scale with 10 being very high and 0 being very low. Of the 70 landscape units identified in the study area, the units with the highest visual character and quality include the following:

- Hawaii Capital Special District
- Chinatown Special District
- Nimitz Highway portion fronting Downtown Honolulu
- portions of Kapiolani Boulevard between the Hawaii Convention Center and Ala Moana Center
- Ala Moana Boulevard fronting Ala Moana Park
- Kalia Road in Waikiki
- portions of Kalakaua Avenue along Waikiki Beach
- portions of Ala Wai Boulevard parallel to the Ala Wai Canal
- Kapahulu Avenue between Kalakaua and Kuhio Avenues
- University Avenue between H-1 and Bachman Hall
- portions of North and South King Streets from Liliha Street through Chinatown and Downtown
- Thomas Square/Academy of Arts Special District

3.4.2 Coastal View Sections

In addition to landscape units, the primary transportation corridor contains several major coastal viewsheds. The Hawaii Coastal Zone Management Program and the City's Special Management Area Use Program both require the consideration of important coastal views.

The Coastal View Study (City and County of Honolulu, Department of Land Utilization, 1987) identifies significant makai and lateral views along Oahu's coastline. The following are those significant makai and lateral views along Oahu's shoreline that also relate to the primary transportation corridor, as listed in the Coastal View Study:

- Ewa Beach Road/Ewa Beach Park (makai views from park)
- Pearl Harbor (makai views of harbor from Kamehameha Highway, at Richardson Park)
- Keehi Lagoon (makai views of lagoon from Lagoon Drive and from Kamehameha Highway)
- Honolulu Harbor (makai views of harbor from Nimitz Highway)
- Kewalo Basin
- Ala Moana Park/Magic Island
- Ala Wai Yacht Harbor
- Kalia Road/Fort DeRussy
- Kalakaua Avenue/Waikiki Beach

3.4.3 Other Special View Opportunities

Special view opportunities were considered by identifying the character and quality of the visual environment. The importance of coastal views and views within special districts was further reinforced. The following view opportunities were considered relative to these viewsheds:

- Residential, Commercial, Institutional, and Industrial Areas: Views of and from various types of buildings and built environments within the viewsheds;
- Koolau and Waianae Mountain Ranges: Views of and from the distant mountains.

- Special Districts: Views of and from special districts designated by the City and County of Honolulu, or non-designated areas of distinctly unique character due to cultural and historical context. Special Districts include Chinatown, Hawaii Capital, Thomas Square, and Waikiki;
- Non-designated Districts: Views of and from neighborhoods that have not been officially designated by the City and County of Honolulu, but nonetheless possess unique identifiable character and fabric. These non-designated districts include the Kalihi-Palama District on North King Street, University of Hawaii-Manoa Campus mauka of Dole Street, Downtown, and Kapiolani Boulevard.
- Pacific Ocean, Pearl Harbor, and Honolulu Harbor: Limited makai views of and from the water adjacent to the study areas.

Specific view opportunities along potential project alignments include:

- Keehi Lagoon
- Kalihi-Palama District
- Kakaako Waterfront Park
- Downtown
- Hawaii Capital Special District
- Chinatown Special District
- Thomas Square/Academy of Arts Special District
- Waikiki Special District
- Hawaii Convention Center
- University of Hawaii - Manoa
- Pacific Ocean, Pearl Harbor, and Honolulu Harbor
- Koolau and Waianae Mountain Ranges

3.5 AIR QUALITY

3.5.1 Relevant Pollutants

Ambient concentrations of air pollution are regulated by both national and State ambient air quality standards (AAQS) (see Table 3.5-1). As indicated in the table, national and State AAQS have been established for particulate matter (PM), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), ozone and lead. The State has also set a standard for hydrogen sulfide.

Particulate matter includes dust, soot, smoke, and liquid droplets. Sulfur oxides, which include SO_2, are colorless gases emitted primarily by burning fossil fuels and volcanic activity. Nitrogen dioxide is a brownish, highly corrosive gas with a pungent odor that is formed from nitrogen oxides emitted by electric utilities, industrial boilers and combustion of fossil fuels. Carbon monoxide is a colorless, odorless and tasteless gas produced by the incomplete combustion of fossil fuels. Ozone is formed in the atmosphere by a chemical reaction of nitrogen oxides and volatile organic compounds in the presence of sunlight. Although an ozone layer in the upper atmosphere shields the earth from harmful ultraviolet radiation, high ozone levels at ground level can cause harmful effects to humans and plants. Lead is a naturally occurring substance that has been used extensively in paint and gasoline. Historically, lead particulates enter the air mainly from vehicle exhaust. The elimination of lead in gasoline sold in the United States has greatly reduced the amount of lead in the air. Hydrogen sulfide is a colorless malodorous gas with the smell of rotten eggs. It is normally generated when sewage is allowed to stand for a long period.

TABLE 3.5-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Units	Averaging Time	Maximum Allowable Concentration		
			National Primary	National Secondary	State of Hawaii
Particulate Matter (<10 microns)	$\mu g/m^3$	Annual 24 Hours	50[1] 150[2]	50[1] 150[2]	50 150[3]
Particulate Matter (<2.5 microns)	$\mu g/m^3$	Annual 24 hours	15[1] 65[4]	15[1] 65[4]	- -
Sulfur Dioxide	$\mu g/m^3$	Annual 24 Hours 3 Hours	80 365[3] -	- - 1,300[3]	80 365[3] 1,300[3]
Nitrogen Dioxide	$\mu g/m^3$	Annual	100	100	70
Carbon Monoxide	$\mu g/m^3$	8 Hours 1 Hour	10,000 40,000	10,000 40,000-	5,000 10,000
Ozone	$\mu g/m^3$	8 Hours 1 Hour	157[5,6] 235[7]	157[5,6] 235[7]	- 100[3]
Lead	$\mu g/m^3$	Calendar Quarter	1.5	1.5	1.5
Hydrogen Sulfide	$\mu g/m^3$	1 Hour	-	-	35[3]

Source: Section 40, Part 50, Code of Federal Regulations.
Chapter 11-59, Hawaii Administrative Rules.

Notes:
[1] Three-year average of annual arithmetic mean.
[2] 99th percentile value averaged over three years.
[3] Not to be exceeded more than once per year.
[4] 98th percentile value averaged over three years.
[5] Three-year average of fourth-highest daily 8-hour maximum.
[6] Implementation of standard currently stayed pending federal court decision.
[7] Standard is attained when the expected number of exceedances is less than or equal to 1.

The national AAQS are stated in terms of primary and secondary standards for most of the regulated air pollutants. National primary standards are designed to protect public health with an "adequate margin of safety". On the other hand, national secondary standards define levels of air quality necessary to protect public welfare from "any known or anticipated adverse effects of a pollutant". In contrast to the national AAQS, the State AAQS are designed "to protect public health and welfare and to prevent the significant deterioration of air quality". The AAQS specify a maximum allowable concentration for a given air pollutant for one or more averaging times to prevent harmful effects. Averaging times vary from one hour to one year depending on the pollutant and type of exposure necessary to cause adverse effects. In the case of the short-term (i.e., 1-hour to 24-hour) AAQS, national and State standards allow a specified number of exceedances per year. The State AAQS are in some cases considerably more stringent than comparable national AAQS. In particular, the Hawaii 1-hour AAQS for CO is four times more stringent than the comparable national limit, and the State 1-hour limit for ozone is more than twice as stringent as the national 1-hour standard. Pending court review, the national 1-hour ozone standard will be phased out during the next few years in favor of a new (and more stringent) 8-hour standard.

The pollutants relevant to the project are those related in large measure to motor vehicles, which have historically constituted a major source of ambient air pollution. These pollutants are CO, hydrocarbons, nitrogen oxides and ozone. Lead was a major motor vehicle pollutant until its elimination from gasoline. Carbon monoxide impacts are localized. Even under the worst meteorological conditions, high concentrations of CO under the most congested traffic conditions are limited to a relatively short distance from heavily traveled roadways. Therefore, CO impacts are analyzed on a localized or “microscale” level. Hydrocarbon and nitrogen oxide automotive emissions play a large role in the formation of ozone. Since the chemical reactions are slow and occur as the pollutants diffuse downwind, elevated ozone levels are often found many miles from pollutant sources. Therefore, the impacts from hydrocarbon and nitrogen oxide emissions are generally analyzed on a regional or “mesoscale” level.

3.5.2 Regional Compliance with the Standards

Air pollutants from vehicular, industrial, natural and/or agricultural sources affect the present air quality in the project area. Much of the PM emissions on Oahu originate from area sources, such as agriculture. Sulfur oxides are emitted almost exclusively by point sources, such as power plants and refineries. Nitrogen oxide and hydrocarbon emissions emanate predominantly from industrial point sources, although area sources (mostly motor vehicle traffic) also contribute a substantial share of total nitrogen oxide emissions. The majority of CO emissions are generated by motor vehicles.

The Hawaii State Department of Health (DOH) operates a network of nine air quality monitoring stations at various locations on Oahu. However, each station typically monitors only certain air quality parameters. Seven of the DOH air monitoring stations on Oahu are located within or near the project study area. These include stations at Kapolei, Makaiwa, Pearl City, Liliha, Sand Island, Downtown Honolulu and Waikiki. Table 3.5-2 summarizes annual statistics from these stations based on the most recent data currently available. A brief summary of the air quality monitoring data at these stations is provided below.

Particulate matter of less than 10 microns in diameter (PM-10) is monitored at Kapolei, Pearl City, Liliha and Downtown Honolulu. The maximum 24-hour PM-10 concentrations 1999 and 2000 ranged from 43 ug/m^3 at the Downtown Honolulu station in 1999 to 164 ug/m^3 at the Pearl City station in 2000. There were no recorded exceedances of the State or national AAQS.

Carbon monoxide is monitored at Kapolei, Downtown Honolulu and Waikiki. In 1999 and 2000, maximum 1-hour CO concentrations at these locations ranged from 5.2 to 4,788 ug/m^3, and no exceedances of the State or national 1-hour AAQS were recorded. The 8-hour CO concentrations for 1999 and 2000 reached a maximum level of 1,853 ug/m^3, which is 37 percent of the allowable State limit and 19 percent of the allowable national limit. Although the highest CO concentrations typically occur on sidewalks near traffic-congested intersections, DOH measurements are not made at these locations because of practical constraints. Therefore, the DOH monitoring data may not be entirely representative of the maximum concentrations that occur within public areas.

Ozone is measured only at the Sand Island station. The maximum 1-hour concentration for 1999 was 110 ug/m^3 and for 2000 was 98 ug/m^3. There were no exceedances of the State or national AAQS.

Sulfur dioxide (SO_2) is monitored at Kapolei, Makaiwa and Downtown Honolulu. No exceedances of the State or national 3-hour standard were recorded at these stations in 1999 and 2000. The maximum 3-hour SO_2 concentration recorded was 50 ug/m^3 at the Makaiwa station in 1999. This is about four percent of the State and national standards. There were also no exceedances of the State or national 24-hour AAQS for SO_2 during 1999 and 2000. The maximum 24-hour concentration at any of the three locations during 1999 and 2000 monitoring period was 20 ug/m^3, which is about five percent of the State and national standards.

Ambient lead monitoring was discontinued in October 1997 with the EPA's approval.

Nitrogen dioxide is only monitored at the Kapolei station. The highest measurements of NO_2 concentrations ranged between 7 and 9 ug/m^3, well within the State and national AAQS. Therefore, no exceedances were recorded.

Based on the discussion above, the State and national AAQS for SO_2, NO_2, ozone and PM-10 currently are met in the project area. In fact, the project area, as well as the entire State, is presently an attainment area for all national AAQS. In addition, while CO measurements taken at the monitoring stations suggest that concentrations are in compliance with the State standards, CO concentrations near congested intersections could exceed the State AAQS at times. As indicated in Section 3.5.1, the State standards for ozone and CO are more stringent than the national standards.

TABLE 3.5-2
AIR QUALITY DATA FOR STUDY AREA MONITORING STATIONS (1999-2000)

Air Pollutant	Kapolei		Makaiwa		Pearl City		Liliha		Sand Island		Downtown Honolulu		Waikiki	
	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000
24-Hour Particulate Matter <10 microns in diameter (PM-10)														
Possible Periods (Day)	365	366	NM	NM	365	366	365	366	NM	NM	365	366	NM	NM
Valid Periods (Day)	362	356	NM	NM	252	358	350	361	NM	NM	357	361	NM	NM
Highest Value (ug/m^3)	129	148	NM	NM	94	164	133	65	NM	NM	43	83	NM	NM
Annual Mean (ug/m^3)	15	17	NM	NM	14	16	15	15	NM	NM	14	14	NM	NM
Number times SAAQS exceeded	0	0	NM	NM	0	0	0	0	NM	NM	0	0	NM	NM
Number times NAAQS exceeded	0	0	NM	NM	0	0	0	0	NM	NM	0	0	NM	NM
1-Hour Carbon Monoxide (CO)														
Possible Periods (Hour)	8760	8784	NM	NM	NM	NM	NM	NM	NM	NM	8760	8784	8760	8784
Valid Periods (Hour)	8395	8595	NM	NM	NM	NM	NM	NM	NM	NM	8610	8726	7959	8728
Highest Value (ug/m^3)	1482	2508	NM	NM	NM	NM	NM	NM	NM	NM	4788	3990	3990	4332
Annual Mean (ug/m^3)	215	336	NM	NM	NM	NM	NM	NM	NM	NM	706	774	1048	905
Number times SAAQS exceeded	0	0	NM	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
Number times NAAQS exceeded	0	0	NM	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
8-Hour Carbon Monoxide (CO)														
Possible Periods (8-Hour)	1095	1098	NM	NM	NM	NM	NM	NM	NM	NM	1095	1098	1095	1098
Valid Periods (8-Hour)	1048	1076	NM	NM	NM	NM	NM	NM	NM	NM	1076	1091	994	1094
Highest Value (ug/m^3)	613	1055	NM	NM	NM	NM	NM	NM	NM	NM	1853	1753	2337	2166
Annual Mean (ug/m^3)	215	336	NM	NM	NM	NM	NM	NM	NM	NM	706	774	1048	905
Number times SAAQS exceeded	0	0	NM	NM	NM	NM	NM	NM	NM	NM	0	0	0	0
Number times NAAQS exceeded	0	0	NM	NM	NM	NM	NM	NM	NM	NM	0	0	0	0

TABLE 3.5-2 (CONTINUED)
AIR QUALITY DATA FOR STUDY AREA MONITORING STATIONS (1999-2000)

Air Pollutant	Kapolei		Makaiwa		Pearl City		Liliha		Sand Island		Downtown Honolulu		Waikiki	
	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000
1-Hour Ozone (O_3)														
Possible Periods (Hour)	NM	NM	NM	NM	NM	NM	NM	NM	8760	8784	NM	NM	NM	NM
Valid Periods (Hour)	NM	NM	NM	NM	NM	NM	NM	NM	8566	8482	NM	NM	NM	NM
Highest Value (ug/m^3)	NM	NM	NM	NM	NM	NM	NM	NM	110	98	NM	NM	NM	NM
Annual Mean (ug/m^3)	NM	NM	NM	NM	NM	NM	NM	NM	40	32	NM	NM	NM	NM
Number times SAAQS exceeded	NM	NM	NM	NM	NM	NM	NM	NM	0	0	NM	NM	NM	NM
Number times NAAQS exceeded	NM	NM	NM	NM	NM	NM	NM	NM	0	0	NM	NM	NM	NM
3-Hour Sulfur Dioxide (SO_2)														
Possible Periods (3-Hour)	2920	2928	2920	2928	NM	NM	NM	NM	NM	NM	2757	2928	NM	NM
Valid Periods (3-Hour)	2710	2505	2899	2862	NM	NM	NM	NM	NM	NM	2757	2832	NM	NM
Highest Value (ug/m^3)	30	23	50	72	NM	NM	NM	NM	NM	NM	46	45	NM	NM
Annual Mean (ug/m^3)	2	1	2	3	NM	NM	NM	NM	NM	NM	2	1	NM	NM
Number times SAAQS exceeded	0	0	0	0	NM	NM	NM	NM	NM	NM	0	0	NM	NM
Number times NAAQS exceeded	0	0	0	0	NM	NM	NM	NM	NM	NM	0	0	NM	NM
24-Hour Sulfur Dioxide (SO_2)														
Possible Periods (Day)	365	366	365	366	NM	NM	NM	NM	NM	NM	365	366	NM	NM
Valid Periods (Day)	360	362	364	361	NM	NM	NM	NM	NM	NM	350	357	NM	NM
Highest Value (ug/m^3)	6	6	11	20	NM	NM	NM	NM	NM	NM	8	9	NM	NM
Annual Mean (ug/m^3)	2	1	2	3	NM	NM	NM	NM	NM	NM	2	1	NM	NM
Number times SAAQS exceeded	0	0	0	0	NM	NM	NM	NM	NM	NM	0	0	NM	NM
Number times NAAQS exceeded	0	0	0	0	NM	NM	NM	NM	NM	NM	0	0	NM	NM

Source: Annual Summary Hawaii Air Quality Data, 1999 and 2000, State Department of Health, Clean Air Branch.
Notes: NM = Not Measured.
Possible Periods = the total number of possible sampling periods in the year.
Valid Periods = the total number of valid sampling periods.

3.5.3 Identification of Sensitive Sites

Since areas near congested intersections may have CO concentrations exceeding the State AAQS, representative receptor areas within the project boundaries were identified for analysis. Because of the large scale of this project and the many intersections that could be affected by it, the CO microscale air quality analysis was limited to 23 intersections dispersed across the project area. They were selected based on a qualitative assessment that these could be areas of maximal CO concentrations from existing and future traffic congestion. They are meant to be representative of the locations in the project area expected to experience peak CO concentrations. The selected intersections are listed below, and the locations of these intersections are shown by number on Figures 3.5-1A and 3.5-1B.

1. Kahuapaani Street / Salt Lake Boulevard
2. Luapele Drive / Salt Lake Boulevard
3. N. King Street / Kalihi Street
4. Dillingham Boulevard / Kalihi Street
5. S. King Street / Bishop Street
6. Hotel Street / Bishop Street
7. S. King Street / Punchbowl Street
8. S. King Street / Ward Avenue
9. S. King Street / Pensacola Street
10. Kapiolani Boulevard / Pensacola Street
11. Kapiolani Boulevard / Kalakaua Avenue
12. S. King Street / Beretania Street / University Avenue
13. Dole Street / University Avenue
14. Nimitz Highway / Sand Island Access Road
15. Nimitz Highway / Waiakamilo Road
16. Ala Moana Boulevard / Richards Street
17. Ala Moana Boulevard / South St.
18. Ala Moana Boulevard / Atkinson Drive
19. Ala Moana Boulevard / Kalia Road
20. Kalakaua Avenue / Kaiulani Avenue
21. Kalakaua Avenue / Kapahulu Avenue
22. Kuhio Avenue / Kapahulu Avenue
23. Kuhio Avenue / Seaside Avenue

3.6 NOISE AND VIBRATION

3.6.1 Noise and Vibration Metrics and Standards

1) Transit Noise

The Federal Transit Administration (FTA) has developed criteria for assessing noise impacts related to transit projects. The standards outlined in Transit Noise and Vibration Impact Assessment (FTA, 1995) are based on community reaction to noise. The standards evaluate changes in existing noise conditions using a sliding scale. The higher the level of existing noise, the less transit projects are allowed to contribute additional noise.

The basic unit of measurement for noise is the decibel. To better account for human sensitivity to noise, decibels are measured on the "A-scale," abbreviated dBA. In accordance with FTA guidelines, the EIS focuses on average noise conditions over a 24-hour period, in order to account for human sensitivity to noise during the nighttime hours. Noise that occurs at night (between 10:00 p.m. and 7:00 a.m.) is given a ten dBA penalty. This adjusted noise measurement unit is known as a Day Night Equivalent Level (Ldn). A rural area with no major roads nearby would average around 50 dBA (Ldn); a noisy residential area close to a major

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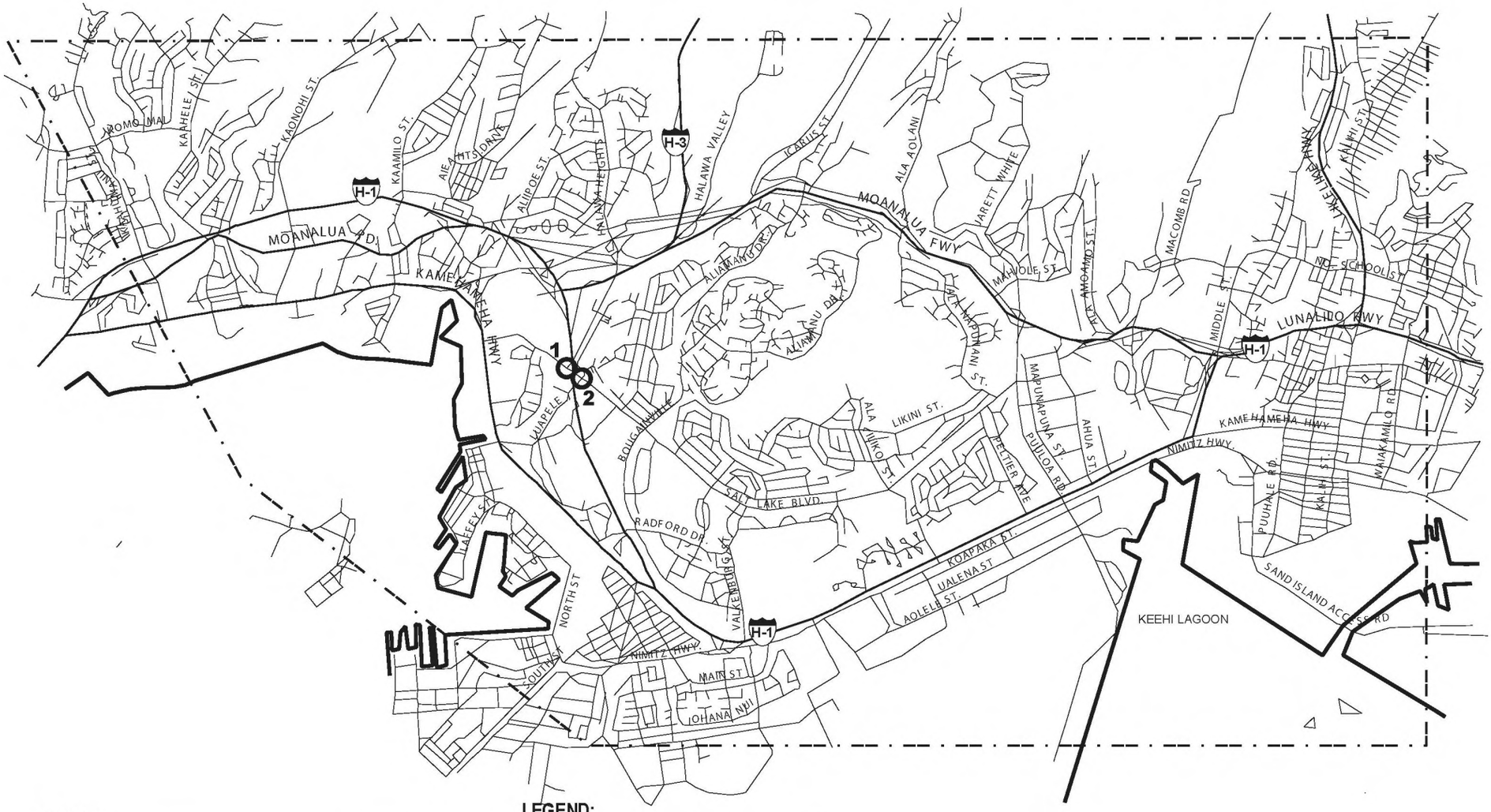


LEGEND:

# O	Location of Intersections that underwent Microscale Analysis

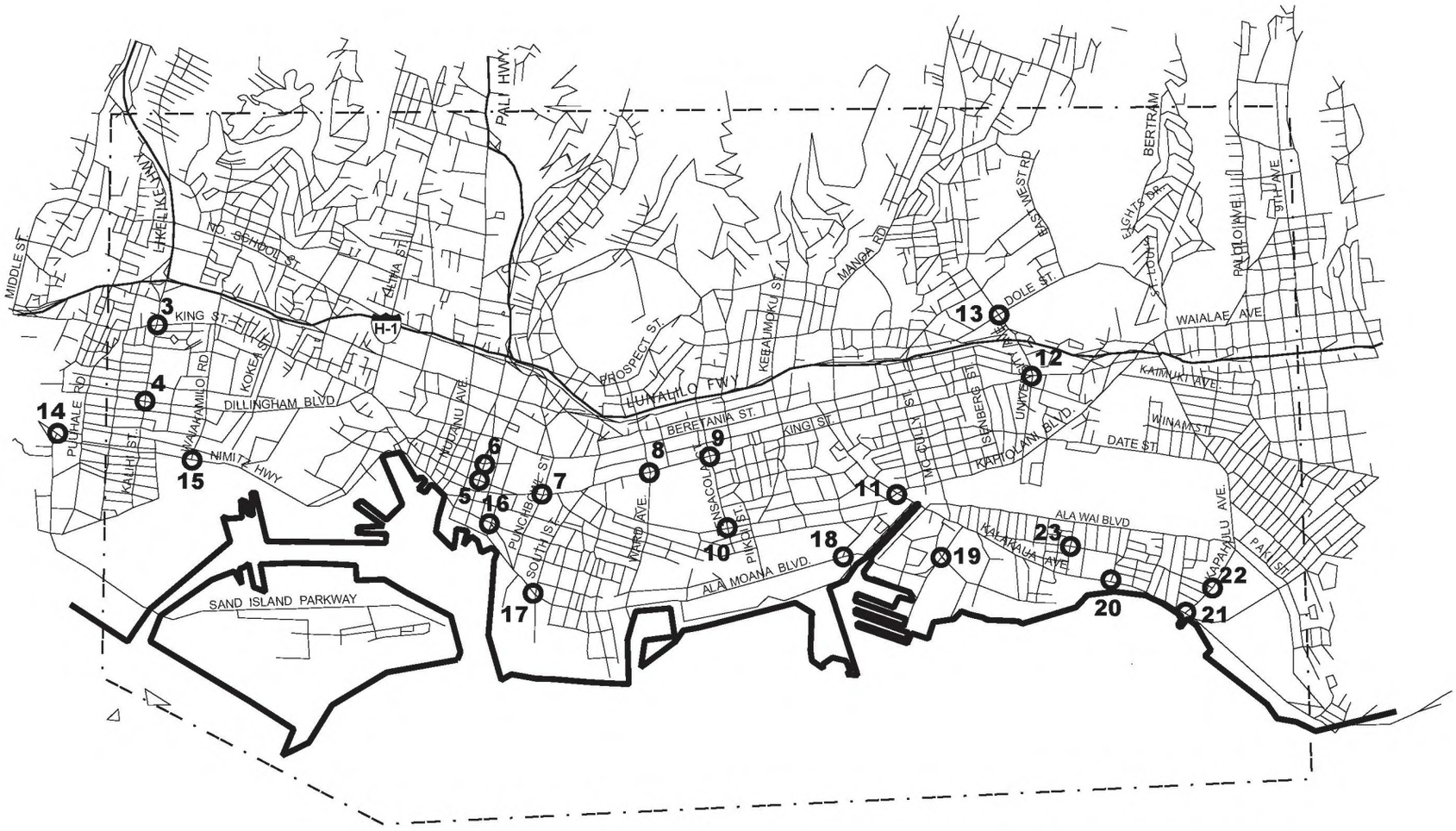
SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

N

Scale: 0 .25 .50 mi

Intersections That Underwent Microscale Analysis

Figure 3.5-1A



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

LEGEND:

# O	Location of Intersections that underwent Microscale Analysis

N

Scale: 0 .25 .50 mi

Intersections That Underwent Microscale Analysis

Figure 3.5-1B

arterial would average around 70 dBA. Most of the residential areas in the study corridor fall within this range. Figure 3.6-1 provides other typical Ldn values for rural and urban areas.

Some land use activities are more sensitive to noise than others (parks, churches, and residences are more noise sensitive than industrial and commercial areas). The FTA Noise Impact Criteria group sensitive land uses into the following three categories:

- Category 1: Buildings or parks where quiet is an essential element of their purpose.
- Category 2: Residences and buildings where people normally sleep. This includes residences, hospitals and hotels where nighttime sensitivity is assumed to be of utmost importance.
- Category 3: Institutional land uses with primarily daytime uses that depend on quiet as an important part of operations, including schools, libraries and churches.

Representative noise sensitive receptors are selected where existing 24-hour noise levels are measured for Category 2 land uses and peak one-hour noise levels are measured for Category 1 and 3 land uses. At these locations, the noise level including that from the proposed transit alternatives is calculated and compared to the measured existing noise level.

2) Transit Vibration

In addition to transit noise, there is also the concern for potential impacts of vibration from transit operations. Ground-borne vibration is a small but rapidly fluctuating motion transmitted through the ground. Ground-borne vibration diminishes (or "attenuates") over distance. Some soil types transmit vibration quite efficiently; others do not. The response of humans, buildings, and sensitive equipment to vibration is described in this section in terms of the root-mean square (RMS) velocity level in decibel units (VdB). As a point of reference, the average person can just barely perceive vibration velocity levels below 70 VdB. Comparisons of typical ground-borne vibration levels are presented in Figure 3.6-2.

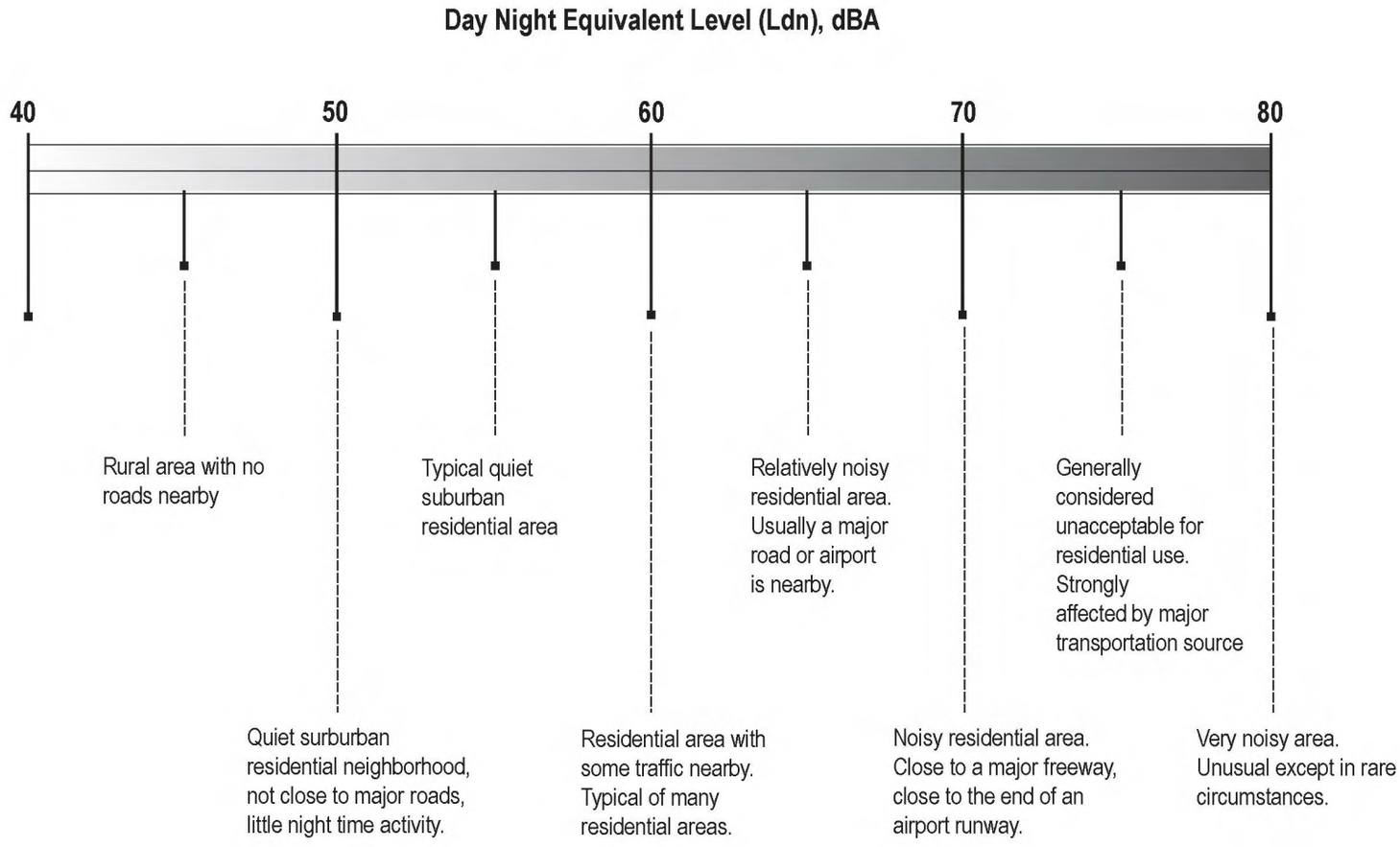
3.6.2 Existing Noise and Vibration Environment

Existing noise levels vary widely along the BRT alignment, which reflects the variety of current land uses and noise sources within the study area. Noise levels were measured in April and December of 1999 and October 2001 to characterize the existing noise environment in the vicinity of the Refined BRT alignment (Figures 3.6-3A and 3.6-3B). To assess the potential noise effects of the proposed Aloha Stadium Transit Center, additional noise measurements were conducted in June 2002 at sensitive receptor locations (Sites AS-1 through AS-10) in the Puuwai Momi and Halawa Valley residential communities. The existing noise levels for a total of 41 sites are summarized in Table 3.6-1.

Twenty-eight sites required long-term (24-hour) measurements to characterize noise levels at land uses with nighttime sleep activity such as residences and hotel/motels. The 13 short-term measurement sites represent daytime land uses such as schools and parks. Each measurement location is representative of surrounding noise sensitive land uses. Ambient vibration levels were not measured as part of this study. The FTA Vibration Impact Criteria were used to identify locations where potential impacts may occur based on existing land use activities.

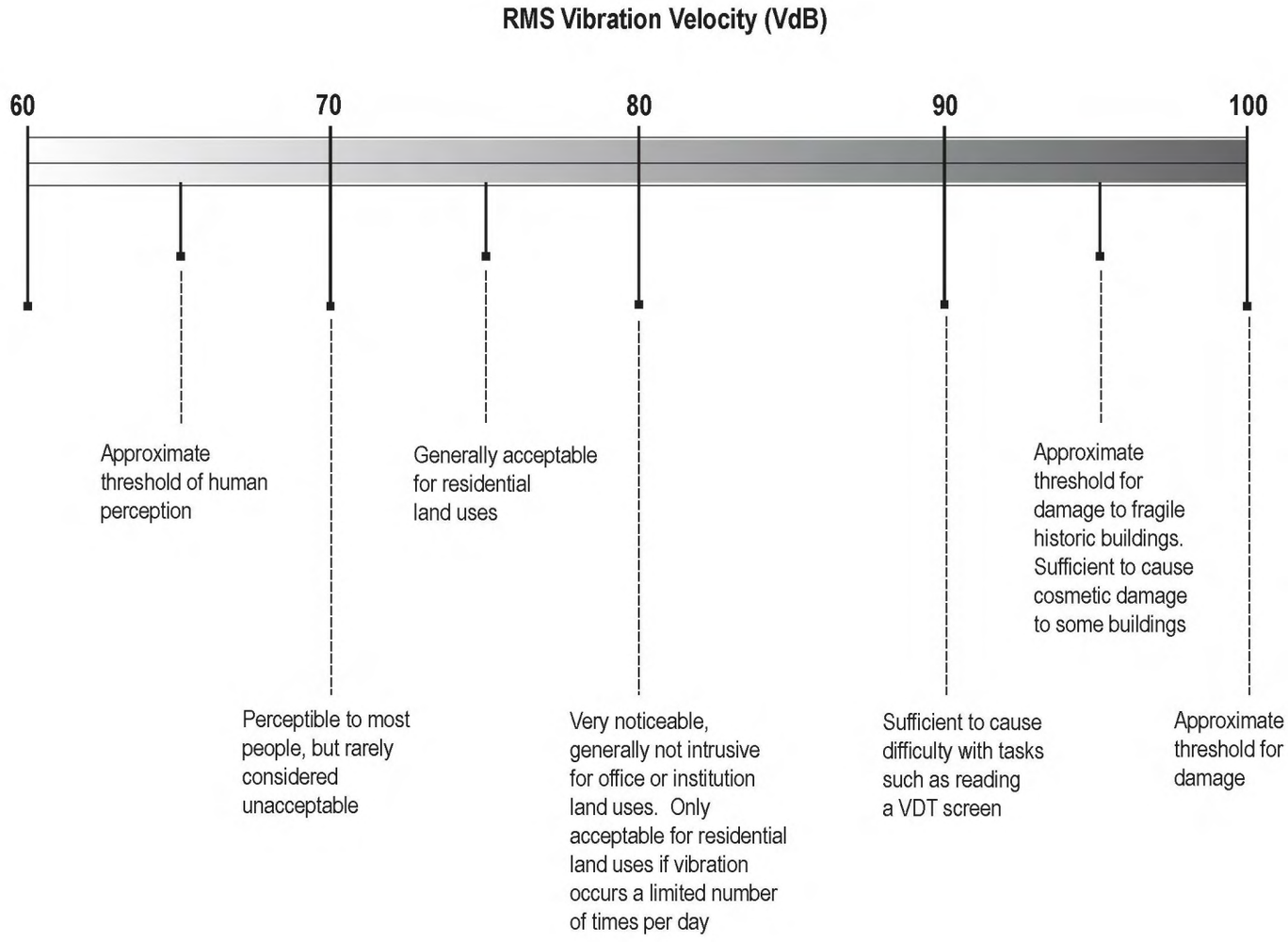
3.7 ECOSYSTEMS

This section reviews the existing vegetation, wildlife, and marine ecosystems in the study area.



SOURCE:
FTA, April 1995

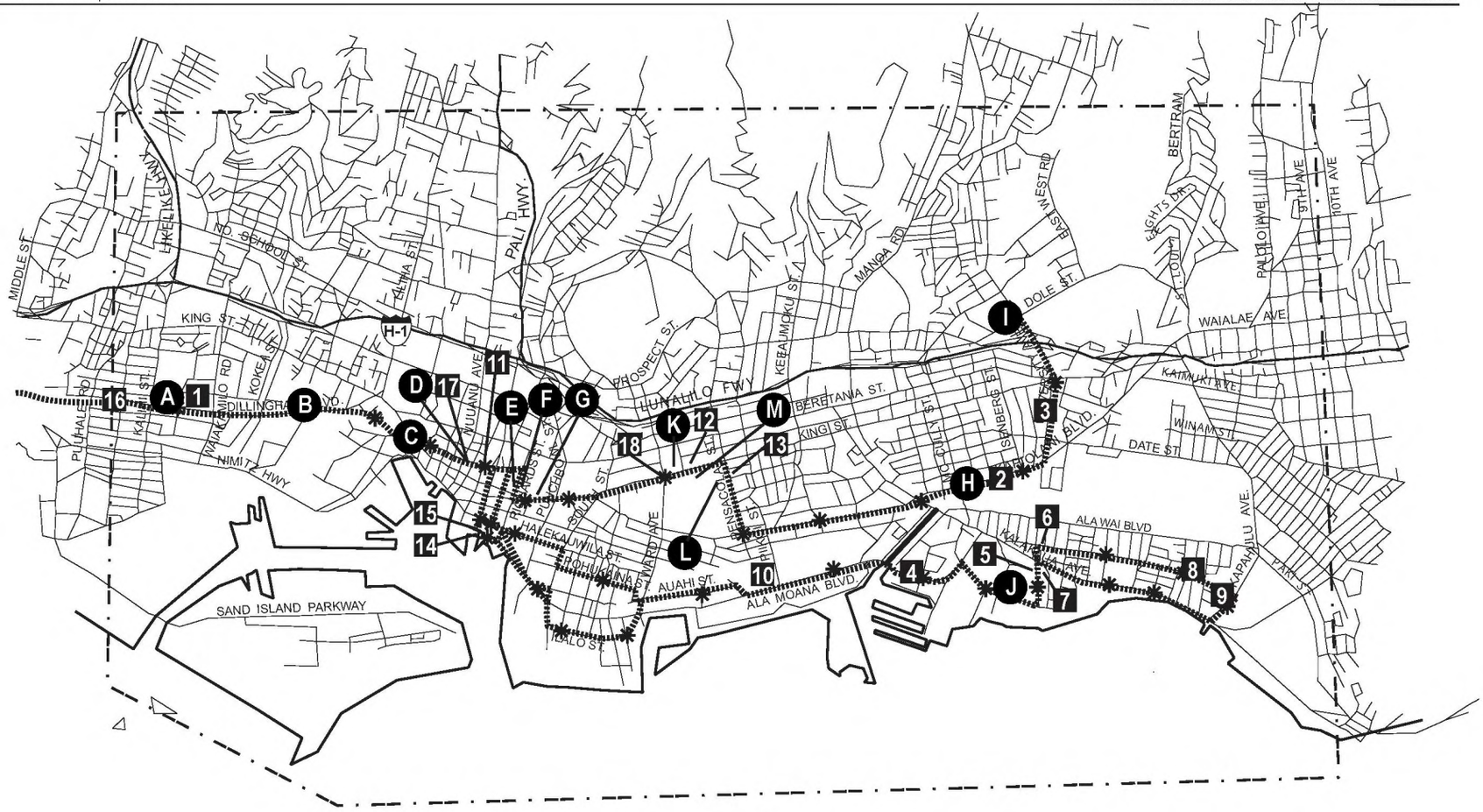
Typical Ldn Values For Rural And Urban Areas — **Figure 3.6-1**



SOURCE:
FTA, April 1995

Typical Levels Of Ground-Borne Vibration

Figure 3.6-2



LEGEND:

●	15 - Minute Noise Monitoring Sites
■	24 - Hour Noise Monitoring Sites
▪▪▪▪▪	Refined Locally Preferred Alternative
✱	Transit Center/Stop

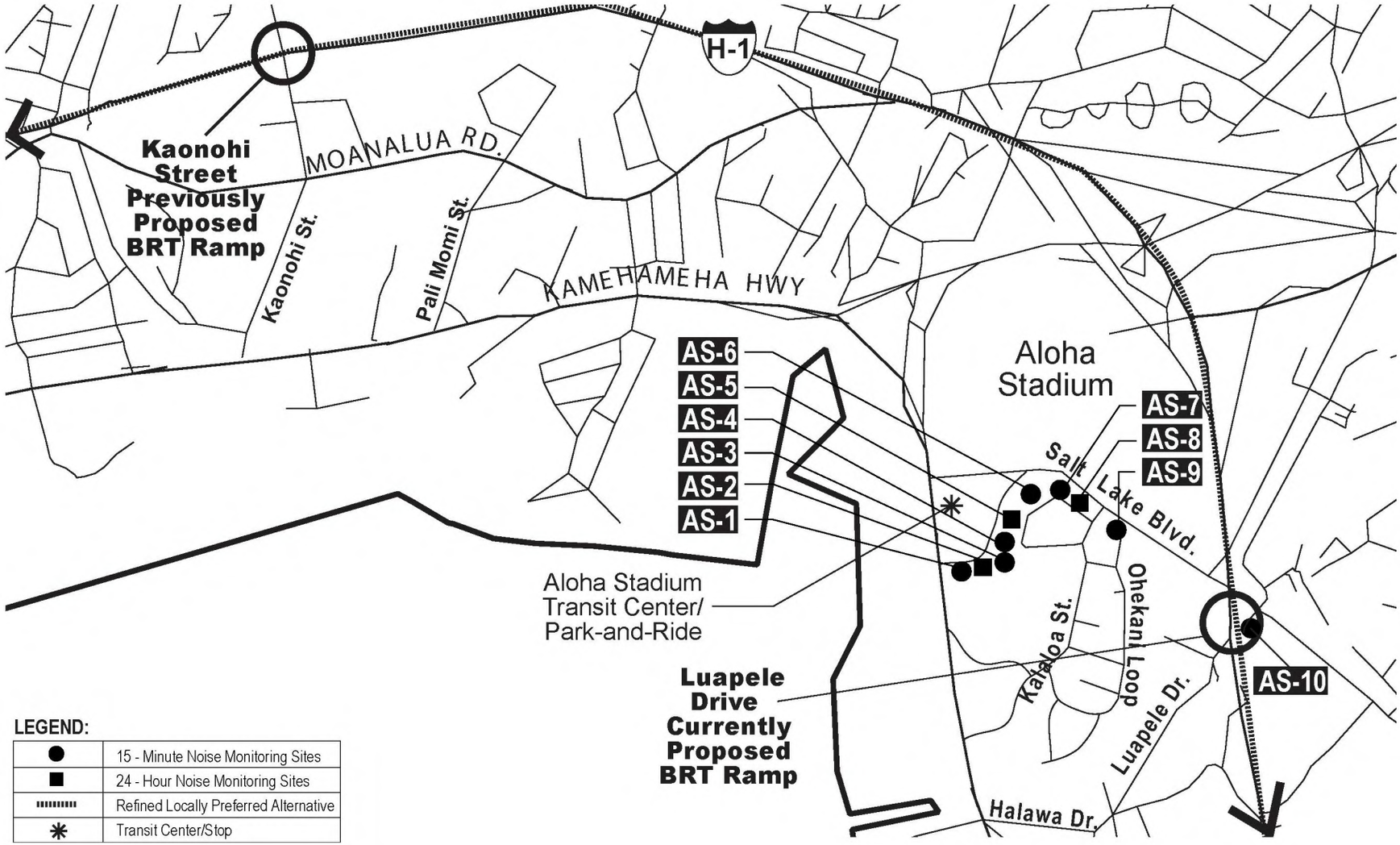
SOURCES:
Parsons Brinckerhoff Quade & Douglas, Inc., 2002; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

N

Scale: 0 .25 .50 mi

Noise Monitoring Sites: Kalihi - University

Figure 3.6-3A



SOURCES:
City and County of Honolulu and Parsons Brinckerhoff, October 2001.

N Scale: 0 .25 mi

Noise Monitoring Sites: Aloha Stadium Transit Center and Luapele Ramp

Figure 3.6-3B

TABLE 3.6-1
MEASURED EXISTING NOISE LEVELS

Receiver Location	Land Use Category[1]	Address LONG-TERM 24-HOUR SITES	Ldn/Leq[2]
1	FTA 2	Bishop Garden Apartments at 1470 Dillingham Boulevard	66/64
2	FTA 2	2386 Kapiolani Boulevard	74/72
3	FTA 2	845 University Avenue	69/71
4	FTA 2	Apartment Building, 1720 Ala Moana	77/75
5	FTA 2	Saratoga Road at Post Office	66/63
6	FTA 2	Apartments on Kuhio Avenue between Launiu & Kaiolu Streets	76/78
7	FTA 2	Outrigger Waikiki Islander Hotel	70/76
8	FTA 2	Waikiki Banyan Hotel	72/72
9	FTA 2	Queen Kapiolani Hotel on Kapahulu at Cartwright Road	70/68
10	FTA 2	Apartment Building, 1350 Ala Moana Boulevard	73/71
11	FTA 2	Executive Center at Hotel and Bishop Streets	77/77
12	FTA 2	Residences on King Street	66/66
13	FTA 2	1122 Elm Street Apartment on Pensacola Street	74/74
14	FTA 2	Harbor Square Condominiums – Ala Moana Boulevard side	76/74
15	FTA 2	Harbor Square Condominiums – Alakea Street side	73/71
16	FTA 2	Nakama Residence (near Blood Bank)	77/77
17	FTA 2	Chinatown Gateway Apartments	73/72
18	FTA 2	Straub Hospital	75/72
AS-1[3]	FTA 2	Puuwai Momi Apartments – Building 1	67/68
AS-2	FTA 2	Puuwai Momi Apartments – Building 3	67/68
AS-3[3]	FTA 2	Puuwai Momi Apartments – Buildings 4 and 5	62/63
AS-4[3]	FTA 2	Single-family residence on Ohenana Loop, Halawa Valley Estates	55/54
AS-5	FTA 2	Single-family residence on Ohenana Loop, Halawa Valley Estates	60/59
AS-6[3]	FTA 2	Single-family residence on Ohenana Loop, Halawa Valley Estates	60/59
AS-7[3]	FTA 2	Single-family residence on Ohenana Loop, Halawa Valley Estates	69/70
AS-8	FTA 2	Single-family residence on Ohenana Loop, Halawa Valley Estates	69/70
AS-9[3]	FTA 2	Single-family residence on Ohialomi Place, Halawa Valley Estates	72/73
AS-10	FTA 2	Single-family residence on Luaole Street	69/68
		SHORT-TERM 15-MINUTE SITES	**Leq**
A	FTA 3	Kalihi Kai Elementary School	69
B	FTA 3	Honolulu Community College	72
C	FTA 3	Aala Park on King Street	68
D	FTA 3	Chinatown Gateway Park at Hotel and Bethel Streets	73
E	FTA 3	YWCA on Richards Street	68
F	FTA 3	Iolani Palace, on Richards	68
G	FTA 3	Iolani Palace, on King	75
H	FTA 3	Ala Wai Community Park	67
I	FTA 3	Buddhist Study Center on University Avenue	70
J	FTA 3	Fort DeRussy, on mauka side of Kalia Road	66
K	FTA 3	Thomas Square on King Street	62
L	FTA 3	McKinley High School classroom building on Pensacola Street	61
M	FTA 3	McKinley High School building on King Street	62

Source: Parsons Brinckerhoff, Inc. September 2002.

Notes: [1] Land use category descriptors:

FTA Category 1 = Buildings or parks where quiet is an essential element of their purpose.

FTA Category 2 = Residences and other buildings where people sleep, such as hotels, apartments and hospitals.

FTA Category 3 = Institutional land uses with primarily daytime and evening use, including schools, libraries and churches.

[2] Ldn is used for land uses with nighttime noise sensitivity and for residential areas where FTA rather than FHWA noise procedures are applicable. Peak-hour Leq is used for commercial, industrial, and other land uses that do not have nighttime noise sensitivity.

[3] 24-hour noise levels at these locations were estimated based upon short-term noise samples, which were compared to the closest 24-hour noise measurement locations.

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3.7.1 Terrestrial Vegetation

Vegetation within the study area consists of:

- Maintained plantings, such as roadway medians, shoulders, landscaping of adjacent properties, golf courses, and botanical gardens
- Ruderal (weedy) patches, such as undeveloped properties
- Abandoned agricultural areas, such as the area makai of H-1 near Kapolei
- Cultivated agricultural areas, such as the Pearlridge watercress farm and the diverse agricultural areas in Ewa

According to the U.S. Fish and Wildlife Service (FWS), three federally endangered plant species have been observed within the Ewa area of the study corridor:

- kooloaula *(Abutilon menziesii)*,
- awiwi *(Centaurium sebaeoides)*, and
- ihiihi *(Marsillea villosa*)

In addition, the plant pu'uka'a (*Torulinium odoratum* ssp. *auriculatum)*, a Species of Concern, has been reported within the Ewa portion of the study area.

Many impressive trees and plants are found within the study area. Some of these trees meet the criteria for "Exceptional Trees," which are defined as "a tree or grove of trees with historic or cultural value, or which by reason of its age, rarity, location, size, aesthetic quality, or endemic status has been designated by the city council as worthy of preservation." (Revised Ordinance of Honolulu Section 41-13.2, 1990)

In addition, several streets within the study area contain mature vegetation within medians and streetscapes. These include Dillingham Boulevard, Richards Street, Halekauwila Street, Kapiolani Boulevard, South King Street, and Kalakaua Avenue. Many examples of banyan trees, monkeypods, mahogany trees, palm trees, and other impressive species lie along the corridors.

The community and elected officials had concerns regarding the potential impacts to existing trees as a result of the proposed project. A tree inventory was conducted where street widening was anticipated. In compiling the baseline tree inventory, a certified arborist recorded trees on the In-Town BRT alignment. Other streets and specific areas were added to the inventory as necessary. More than 900 trees were inventoried. The survey entailed noting the tree species, size (in diameter at breast height), distance from the curb, maturity (including transplantability), and health condition. The arborist determined the maturity, transplantability, and health of each tree by conducting a visual check.

Notable trees were also identified as part of the study. A "notable" tree is defined as those trees that the arborist deemed to be important to the urban landscape character. This category includes individual trees or tree types, as well as groups of trees that together comprise a recognized and important element of the visual landscape. Examples of notable trees along the alignment are large banyan trees (*Ficus spp.*) on Kalia Road, the Kamani trees (*Callophylum inophyllum*) lining Dillingham Boulevard, monkeypod trees (*Samanea saman*) on Kapiolani Boulevard, and clusters of various palms on Saratoga Road in Waikiki.

Tree health was also considered in determining whether or not trees are "notable". If the arborist identified a tree to be "overmature" (close to its life expectancy for successful replanting) or otherwise unhealthy, the tree was typically not deemed to be "notable". Only in a few instances were unhealthy or overmature individual trees identified as "notable" because of their contribution to the overall landscape. Examples of such trees are the Kamani trees on Dillingham Boulevard and the monkeypods on Kapiolani Boulevard.

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Preliminary designs prepared after the MIS/DEIS was published (August 2000) and initial plans indicated that there would be impacts on urban street trees. Because of concerns about the magnitude of tree impacts initially identified, the City undertook concerted efforts to redesign portions of the In-Town BRT to minimize tree impacts. Redesign efforts in various locations included shifting or eliminating bus stops, reducing the number or size of traffic and BRT lanes, converting some exclusive BRT lanes to semi-exclusive or mixed-traffic lanes, and designing bus stops around existing trees, among others.

3.7.2 Freshwater Fish and Terrestrial Wildlife

The study area encompasses mostly urbanized land. Any remaining terrestrial wildlife habitats are generally highly modified and populated with introduced wildlife species. Numerous streams within the corridors provide habitat for species of introduced and indigenous fish, and migrating shorebirds. All streams have been modified in the lower reaches and are of relatively poor ecological quality.

The FWS notes that the Hawaiian hoary bat (*Lasiurus cinereus semotus*), federally listed as endangered, has been sporadically sighted within the Honolulu metropolitan area. The following waterbird species, federally listed as endangered, have been observed in wetland areas within the project area:

- Hawaiian coot (Fulica americana alai),
- Hawaiian duck (*Anas wyvilliana*),
- Hawaiian common moorhen (*Gallinula chloropus sandvicensis*), and
- Hawaiian stilt (*Himantopus mexicanus knudseni*).

The Oahu elepaio (*Chaoiempis sandwichensis ibidis*) has also recently been listed as an endangered species and its critical habitat designated. Their critical habitat is associated with the Koolau and Waianae mountains on Oahu.

The State of Hawaii lists the Oahu population of the white tern (*Gygis alba*) as endangered. White terns are a relatively recent bird to the avifauna of Oahu. Prior to the 1960s, they could only be seen with regularity in the Northwestern Hawaiian Islands. Their establishment on Oahu may be a result of crowded conditions elsewhere which have forced the birds to search for other roosting and nesting localities. At present the major site used by white terns on Oahu is Kapiolani Park, with some activity scattered elsewhere in urban Honolulu (Bruner, May 1992).

3.8 WATER

This section discusses surface waters (such as lagoons, streams, navigable waters, or harbors), groundwater, floodplains, coastal areas, wetlands, and water-dependent recreation.

3.8.1 Surface Water

The State's general policy is to maintain or improve existing water quality in all State waters. All waters of the State of Hawaii are classified as inland waters or marine waters. Inland waters are fresh waters, brackish waters, or saline waters, including streams, springs, wetlands, estuaries, anchialine pools, and saline lakes. Types of marine waters are embayments, open coastal waters, or oceanic waters. The State has defined water use classifications for inland and marine waters and set water quality criteria for each water use classification.

According to the Hawaii Department of Health (HDOH) administrative rules, inland waters can be either water use Class 1 or Class 2. The water quality in Class 1 waters is to be maintained in their natural states; no waste discharge is allowable. Class 2 waters are those to be protected for recreational use, propagation of aquatic life, agricultural and industrial water supplies, shipping, and navigation. Marine waters are

categorized as Class AA and Class A. Class AA waters are to "remain in the natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-caused source or actions." Class A waters can be used for "recreational use and aesthetic enjoyment," among other allowable uses compatible with protecting the natural resources in these waters (Hawaii Administrative Rules (HAR), Chapter 11-54, Water Quality Standards).

1) Coastal Surface Waterbodies

The following large coastal surface water bodies are located within or adjacent to the project study area:

- Pearl Harbor
- Keehi Lagoon
- Honolulu Harbor
- Kewalo Basin
- Ala Wai Canal and Boat Harbor

These five water bodies are all highly urbanized and/or altered from their natural state. All have been listed by HDOH as "Water Quality-Limited Segments," as required by the Clean Water Act Section 305(b) and defined by 40 CFR 130.8. Water Quality-Limited Segments are water bodies having pollutants in excess of the established water quality standards, such that they cannot reasonably be expected to attain or maintain state water quality standards without additional action to control sources of pollution.

a) Pearl Harbor

Pearl Harbor is an estuary designated as Class 2 inland water, with a special set of water quality criteria because of its polluted condition. Pearl Harbor receives flows from a drainage basin of approximately 100 square miles. Freshwater inflows create a stratified estuary where a surface layer of brackish water flows out of the main channel with little tidal influence. The abundant rainfall at the heads of the streams that drain into Pearl Harbor results in runoff that transports pollutants from upland forest, agricultural, commercial, industrial, military, and residential lands. Water quality parameters for nitrogen, phosphorus, turbidity, fecal coliform, temperature, and chlorophyll are frequently violated in Pearl Harbor. The narrow entrance channel and the configuration of the lochs retard flushing of the harbor (Hawaii Coastal Zone Management Program, Office of State Planning, June 1996). Siltation is also a major problem, which is addressed by frequent maintenance dredging. Sediments are continuously resuspended by ship traffic.

b) Keehi Lagoon

Keehi Lagoon is a highly modified water body, designated Class A by HDOH. After World War II, seaplane runways were dredged, greatly increasing the volume of the lagoon and retarding flushing. When the Honolulu International Airport (HIA) was built, an additional circulation channel was constructed, which improved water quality, but a gradient of increasing turbidity and plant nutrients exists toward the discharges of Kalihi and Moanalua Streams. Other point source discharges to the lagoon include a drainage canal from HIA and adjacent industrial areas, and several additional drainage outlets along Lagoon Drive on the more southwesterly shoreline of the lagoon. The currents in Oahu's southern coastal waters move from Honolulu Harbor into Keehi Lagoon. These currents may transport pollutants into Keehi Lagoon and recirculate suspended matter. Various causes, effects and symptoms of water pollution in the lagoon have been documented, including petrochemical contamination of sediments and water, fish kills, and the presence of human enteric viruses. Although circulation in Keehi Lagoon is good, the lagoon regularly experiences violations of water quality parameters for phosphorus and turbidity. Nearly the entire lagoon includes fill material deposited from nearby dredging and from other sources.

In 1943, Kalihi Channel was dredged to the depth of 35–40 feet as part of military project to connect Kapalama Basin in Honolulu Harbor with the open ocean. Currently, there are two bridges over the Kalihi Channel effectively blocking ship access to Honolulu Harbor from Keehi Lagoon.

Over 300 vessels (e.g. boats and floating structures) are anchored throughout Keehi Lagoon and are often used as residences. Many of the vessels are not seaworthy and cannot propel themselves under their own power.

c) Honolulu Harbor

Honolulu Harbor is a Class A marine embayment. Honolulu Harbor has had recognized water pollution problems as far back as the 1920s. Two streams, Kapalama and Nuuanu, and numerous ditches and storm drains, contribute runoff to the harbor, along with associated pollutants. Water quality in the Kapalama Basin portion of the harbor is particularly poor because of discharges from Kapalama Stream. The parameters of greatest concern are nutrients, metals, suspended solids, pathogens, and turbidity (HDOH, March 1998). Coliform bacteria, nitrogen, phosphorus, and turbidity levels in the water regularly exceed State water quality standards. In 1978 and subsequent HDOH sampling, heavy metals, chlorinated pesticides, polychlorinated biphenyls (PCBs), chlordane, and dieldrin (a toxic chlorinated organic compound used in insecticides) have been identified in harbor waters.

d) Kewalo Basin

Two major storm drains discharge into Kewalo Basin, a Class A marine embayment. One drain serves Ala Moana Park and Center and the mauka residential and commercial areas. The other drain serves the Ward Avenue-Kakaako District, which consists of mostly light industrial and commercial businesses. All areas support heavy vehicular traffic. Kewalo Basin's design hinders circulation of water in the basin. As a result, the urban pollutants that collect in the basin remain concentrated for extended periods. Street debris, oil, chemicals, nutrients, and heavy metals are transported by urban runoff into Kewalo Basin (Hawaii Coastal Zone Management Program, Office of State Planning, June 1996). Water quality standards have been exceeded for nitrogen, phosphorus, and turbidity (HDOH, March 1998).

e) Ala Wai Canal and Boat Harbor

The Ala Wai Canal is a Class 2 inland water or estuary; the Ala Wai Boat Harbor at the mouth of the Ala Wai Canal is a Class A marine water body. As the connecting point for the Makiki, Manoa, Palolo, and Kapahulu watersheds, the Ala Wai Canal accumulates sediments, nutrients, some heavy metal contaminants, solid waste, and trash (Hawaii Coastal Zone Management Program, Office of State Planning, June 1996). Phytoplankton growth, suspended sediments, and visually objectionable trash discolor water in the canal. In addition, some incidences of bacterial infection have been reported. Water circulation from the point where the Manoa Stream meets the canal to near Kapahulu Avenue is poor. Floating debris collects under the makai side of the McCully Street Bridge, creating an unsightly mess. There is a fish advisory against the consumption of fish from the Ala Wai Canal, as well as other urban streams in Honolulu. Though the Ala Wai Canal flows into the boat harbor, the fish advisory does not mention the boat harbor specifically or other water bodies associated with urban streams.

2) Streams

In addition to the large water bodies discussed above, several streams are located within the study area. Most of these stream channels have been altered in the lower reaches and are not of high ecological quality. These streams include the following:

- Makakilo Gulch
- Makalapa Gulch
- Hunehune Gulch
- Kaloi Gulch
- Honouliuli Gulch
- Waikele Stream

- Kapakahi Stream
- Panakauahi Gulch
- Waiawa Stream
- Punanani Gulch
- Waimalu Stream
- Kalauao Stream
- Drainage canal next to Kalauao Stream
- Aiea Stream
- Halawa Stream
- Moanalua Stream
- Kahauiki Stream
- Kalihi Stream
- Kapalama Stream/Drainage Canal
- Waolani Stream
- Nuuanu Stream
- Pauoa Stream
- Makiki Stream
- Manoa-Palolo Drainage Canal

The water quality in these urban streams is poor. HDOH in May 1998 placed a health advisory against the consumption of fish from the Ala Wai Canal and other urban streams in Honolulu, due to the detection of organochlorine pesticides and lead in the fish. This advisory is still in effect (HDOH Fish Advisory, "DOH advises public to not eat fish from Honolulu streams," May 21, 1998).

3.8.2 Groundwater

1) Soil and Geology

Within the study area, coral reefs and eroded volcanic material have formed a wedge of sedimentary rock and sediments, referred to as caprock, which rests on the underlying volcanic rock. Caprock is composed predominantly of coral-algal limestone, interlaid with terrigenous clays and muds. Volcanic ash from the Honolulu volcanic series is often found in the caprock. The caprock is approximately zero to 1,000 feet thick in the study area (Wentworth, 1951).

Underneath the caprock lies the volcanic rock of the Koolau Range in most of the study area. Occasionally, these rocks are exposed towards the Koko Head end and they dominate the central portion. The rocks are mostly volcanic lava flows and pyroclastic deposits. The volcanic rocks exposed towards the Ewa end of the study area near Kapolei are part of the Waianae volcanic series.

There is recent alluvium in the study area, consisting mainly of clayey organic silt with variable amounts of sand, some pockets of gravel and cobbles, and localized thin layers of marine sediments. Low-lying areas were filled during urbanization and are usually underlain by recent alluvium. Often, these areas were originally marshlands. The Downtown Honolulu area consists mainly of silty sand and coral gravel dredged from Honolulu Harbor. It is unconsolidated, with high porosity and permeability.

The central and Ewa portions of the study area are mostly on alluvium and volcanic rock. The volcanic rocks are typical a'a and pahoehoe flows. They vary greatly in strength, thickness, hardness, and other engineering properties. There are also pyroclastic deposits that are generally permeable, low in strength, and may be highly weathered. Soil coverage on top of these rocks is generally thin to nonexistent.

2) Aquifers

The Southern Oahu Basal Aquifer (SOBA) is the principal aquifer underlying all of southern Oahu. The portions of the SOBA in the study area are the Pearl Harbor Aquifer Sector and the Ewa Aquifer System. In accordance with the 1984 Sole Source Aquifer Memorandum of Understanding between the FHWA and the Environmental Protection Agency (EPA), a Ground Water Impact Assessment (GWIA) was prepared to meet the coordination requirements of Section 1424(e) of the Safe Drinking Water Act.

The SOBA occurs as a basal freshwater lens floating on saline groundwater. It is recharged by rainfall that falls on the mauka area of Honolulu and the Leeward Coast. The caprock overlies the SOBA and impedes the escape of groundwater from this basaltic aquifer. Water in the caprock is brackish and not potable. The caprock is less permeable than water-bearing lava flows near the Koolau Range and constitutes a barrier that retards the seaward flow of groundwater. The caprock layer thins with distance from the shoreline and ends at varying distances inland, and the basalt layer is exposed or underlies surficial materials. As a consequence, inland areas of central Honolulu have the highest water tables in southern Oahu.

Beneath the caprock and underlying all of southern Oahu, the SOBA is heavily utilized, containing large supplies of fresh water. The basal groundwater is under artesian pressure; water levels range from ten to thirty feet above sea level. Although the capacity of the caprock to store and transmit water is small compared to that of the basalt aquifer, the caprock contains large quantities of water accumulating from rainfall, irrigation return, and leakage upward from the artesian portion of the basalt aquifer. Caprock water is generally of poor quality because of its relatively high chloride content, but it has been developed for agricultural and industrial purposes. Groundwater levels in the caprock in the study area vary with ocean tides and may also be influenced locally by streams. Depths may be as little as five feet below ground surface in the Koko Head portion of the study area.

There are numerous injection wells for waste discharge into the caprock in central Honolulu, including those for thermal effluent, car-wash return, and rainwater. Pollutants in these discharges do not reach the SOBA, however, due to upward artesian pressure.

The U.S. Environmental Protection Agency (EPA) has designated the SOBA as the sole or principal source of drinking water for the Pearl Harbor area. Based on Hawaii status codes related to the protection of drinking water, the SOBA is designated as a currently used source of fresh drinking water that is both irreplaceable and highly vulnerable to contamination (Mink and Lau, 1990).

3.8.3 Floodplains

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) indicate several areas within the study area falling within the 100- or 500-year base floodplains. These floodplains are associated with streams, estuaries, canals and tsunami inundation areas. The largest of these floodplain areas occurs Koko Head of Ward Avenue, makai of South King Street, and Ewa of Paoakalani Avenue. This area includes Ala Moana Beach Park, the Ala Moana Center, and Waikiki. The area includes the 100-year base floodplains associated with the Manoa-Palolo Stream and the Ala Wai Canal. It includes areas that would be inundated by worst-case hurricane conditions.

Other flood zones within the study area are associated with streams entering Pearl Harbor. Wailani, Kapakahi, and Waikele Streams form a floodplain where they enter the West and Middle Lochs. Waiawa, Honouliuli, Aiea, and Kalauao Streams all have floodplains associated with them as they enter Pearl Harbor. Additional floodplains occur at the mouth of Pearl Harbor, along much of the Leeward Coast, and along Halawa Stream near Moanalua Highway. Another isolated floodplain occurs at the confluence of Nuuanu and Waolani Streams near the intersection of the Pali Highway and the H-1 Freeway. Floodplains are also associated with Kaloi Gulch, near Kapolei Parkway.

3.8.4 Wetlands

As defined by 40 CFR 230.41(a)(1), wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. There are no wetlands suspected to be present within the proposed construction areas as many of the streams in the study area are concrete-lined, eliminating the potential for wetlands to exist.

3.8.5 Navigable Waters

Waters subject to tidal influence are generally defined as navigable. Further, navigability is defined by usage such that non-tidal streams carrying commercial traffic are deemed navigable. Table 3.8-1 lists the streams in the majority of the study area that have been deemed navigable. Navigation of all streams in the study area is extremely limited or non-existent. Most navigation is limited to small recreational boating such as canoes and kayaks (Communication with the U.S. DOT and the United States Coast Guard on March 23, 2000). Coordination with the U.S. Coast Guard will continue. For the purposes of the Department of the Army permitting requirements, the Division Engineer for the U.S. Army Corps of Engineers (ACOE) determines navigability under the authority of 33 Code of Federal Regulations (CFR) Part II, Section 329.14(b). The Coast Guard determination does not necessarily affect the ACOE permitting jurisdiction.

TABLE 3.8-1
NAVIGABLE WATERWAYS IN THE STUDY AREA

Waterway	Navigable Length	
	Kilometers	Miles
Waiawa Stream	0.16	0.1
Waimalu Stream	0.16	0.1
Waikele Stream	1.67	1.0
Kahauiki Stream	0.74	0.5
Panakauahi Gulch	2.04	1.3
Kapakahi Gulch	0.37	0.2
Kalauao Creek	0.16	0.1
Aiea Creek	0.32	0.2
Halawa Creek	0.32	0.2
Moanalua Stream	1.60	1.0
Kalihi Stream	0.80	0.5
Kapalama Stream	0.80	0.5
Nuuanu Stream	0.80	0.5
Pauoa Stream	Entire length	
Manoa-Palolo Drainage Canal	Entire length	
Ala Wai Canal	Entire length	

Sources: U.S. DOT, United States Coast Guard, letter, June 13, 1989.

3.8.6 Coastal Zone Management (CZM) Areas

The U.S. Department of Commerce in September 1978 approved the Hawaii Coastal Zone Management (CZM) Program with the following goals:

- Protect valuable resources;
- Preserve management options;
- Ensure public access to beaches, recreation areas, and natural reserves; and
- Provide for solid and liquid waste treatment within the Special Management Area (SMA).

In Hawaii, the Department of Business, Economic Development, and Tourism (DBEDT) administers the program. Federally funded activities must receive a consistency determination from the CZM program to assure that they meet the guidelines in the State policy. Hawaii Revised Statutes (HRS) Chapter 205A outlines special controls, policies, and guidelines for development within the area along the shoreline referred to as the Special Management Area (SMA) designated by the 1975 Shoreline Protection Act. This act gave the counties authority to issue permits for development activities proposed within the SMA. For the City and County of Honolulu, the Department of Planning and Permitting (formerly the Department of Land Utilization) is the agency that administers most of the SMA Use Permit program. The City Council has the authority to

approve these SMA permits. In addition, the Kakaako area is a Hawaii Community Development District. This district stretches from Honolulu Harbor to Piikoi Street. In this district, the Hawaii Community Development Authority (HCDA) has the authority to approve SMA permits.

3.8.7 Water Recreation

Recreational uses of surface waters within or adjacent to the study area are limited primarily to the ocean and the Ala Wai Canal. The Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation, manages the recreational uses of shore waters and shore areas in accordance with Chapter 13-250-256, Part III, entitled "Ocean Waters, Navigable Streams and Beaches." It divides the coastal areas into segments and specifies what water-based uses are allowed within specific zones. Most of the study area falls within the South Shore Oahu Ocean Recreation Management segment, which includes all ocean waters and navigable streams from Makapuu Point to the west boundary of the Reef Runway of HIA. In addition to swimming and sunbathing, people surf, snorkel, paddle, canoe, sail, cruise, ride jet skis, whale watch, water ski, and fish in this area. The remaining Ewa portion of the study areas falls within a Non-designated Ocean Recreation segment, from Pearl Harbor to Kalaeloa (formerly Barbers Point).

Makai of Ala Moana Regional Park is the Ala Moana Commercial Thrill Craft Zone, which is restricted to commercial operators. Ewa of this zone and makai of HIA is the Keehi Lagoon/Kahakaaulana Islet Commercial Zone, which is the site of commercial thrill craft and other commercial ocean activities. Recreational thrill craft are accommodated in the Reef Runway Zone that parallels the airport's Reef Runway.

Recreational use of the navigable streams in the corridor is minimal. Recreational use of the Ala Wai Canal consists primarily of paddling and fishing. However, as mentioned earlier in this section, the water quality is poor and HDOH has issued a health advisory regarding the consumption of fish from the Ala Wai Canal. (HDOH Fish Advisory, "DOH advises public to not eat fish from Honolulu streams," May 21, 1998).

3.9 HAZARDOUS MATERIALS

Present and historic land uses in the corridor could have produced site contamination. Most contaminated sites are or were associated with the use, transportation, or storage of hazardous materials. Heavy industrial activities and commercial uses such as vehicle service stations and dry cleaning operations are among the types of land uses with the potential to produce site contamination. Site contamination could result from on-site land uses, or contaminants may have migrated from a nearby site to an area involved in one or more of the project alternatives. This section provides preliminary information on documented sources of hazardous materials or contamination in the primary transportation corridor that could affect property acquisition or construction associated with the project.

Regulatory information indicates the presence of Leaking Underground Storage Tanks (LUSTs), other sources of petroleum contamination, PCBs, potential solid waste, and/or hazardous waste materials throughout the Regional and In-Town BRT corridors. The Refined LPA is designed to operate primarily on existing streets, where no hazardous materials are expected to be encountered. No hazardous material sites have been identified at proposed transit stops. However, off street facilities associated with the BRT, such as transit centers and traction power supply stations (TPSS) for the In-Town BRT may encounter site contamination issues.

The approximately 15 TPSS sites to be located intermittently along the In-Town BRT alignment would each have a roughly 500 square-foot footprint. In most cases, they would be located inside existing or proposed buildings. Potential TPSS locations are designated on the preliminary engineering drawings provided in Appendix B (see Volume 4). However, since it would be 8 to 14 years before the EPT is installed depending on the segment, the locations shown on the design drawings are not site specific; each notation is intended only to indicate the general vicinity in which a TPSS would be placed. Site specific environmental

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assessments of each TPSS would be prepared prior to proceeding with implementation of EPT. Locations and design treatments would be established with community input.

Methane is likely to be present in the subsurface areas where petroleum contamination occurs. Methane is produced during the degradation of organic matter, including petroleum hydrocarbons. Methane could be a concern in the case of confined subsurface structures (such as utility vaults) where methane gases can build up and potentially ignite. Such incidents have been reported in areas of Iwilei and downtown Honolulu, and the presence of methane may need to be considered in project planning.

3.10 HISTORIC AND ARCHAEOLOGICAL RESOURCES

3.10.1 Applicable Legal and Regulatory Requirements

Section 106 of the National Historic Preservation Act (NHPA) requires that actions that are federally funded, authorized or carried out take into account the effect of such actions on any district, site, building, structure or object that is included in or eligible for inclusion in the National Register of Historic Places (NRHP). Such resources are called "historic properties." Section 106 requires coordination and consultation the State Historic Preservation Officer (SHPO), and other agencies and organizations that may have an interest in or is mandated to protect historic properties. In addition, the Advisory Council on Historic Preservation is afforded the opportunity to comment on actions that may potentially affect historic properties.

Chapter 6E of the Hawaii Revised Statutes (HRS) places similar responsibilities on State agencies to evaluate their projects. Since the project involves both federal and State agencies, both HRS Chapter 6E and Section 106 apply to the project.

The Section 106 and Chapter 6E process consists of: (1) identification of historic properties in the Area of Potential Effect (APE); (2) assess potential project effects on the historic properties in the APE, and, (3) if necessary, mitigate adverse impacts. This section of the FEIS documents activities to identify historic properties in accordance with the requirements of the Code of Federal Regulations (CFR) pertaining to the Protection of Historic Properties (36 CFR 800) (known as Section 106) and HRS Chapter 6E.

For a district, site, building, structure or object to be considered eligible for the NRHP, it has "integrity of location, design, setting, materials, workmanship, feeling, and association", and meet any one of the following criteria:

(A) associated with events that have made a significant contribution to the broad patterns of history;
(B) associated with the lives of persons significant in the past;
(C) embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
(D) yielded, or may likely yield, information important in prehistory or history.

The Hawaii Register of Historic Places (HR) provides an additional criterion:

(E) site that has cultural significance, such as religious structures (shrines, *heiau*), or human burial locations.

For descriptive purposes, the historic properties identified in this section are categorized in the following manner:

- Archaeological Remains, Sites or Resources. Most of these historic or potentially historic properties would be related to the Native Hawaiian population, especially those originating prior to western contact.
- Historic-Period Resources. These are historic or potentially historic buildings, structures or objects constructed or erected after western contact. This category includes historic districts.

- Traditional Cultural Properties (TCP). An area or place associated with the cultural practices or beliefs of a living community because it is rooted in that community's history, or it is important in continuing that community's cultural identity.

3.10.2 Description of the Resources

The study area with regards to historic properties is called the Area of Potential Effect (APE). It is defined in 36 CFR 800.16 as the "geographic area or areas within which an undertaking (project, activity or program) may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. [It] is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." Since many elements of the Refined LPA, such as the In-Town BRT transitway, would not rise above or extend beyond existing streets, the APE was limited to the street itself. However, where elements of the Refined LPA uses new right-of-way, such as transit centers, and/or involve structures, such as transit stops, the APE would be extended to the new right-of-way or those properties immediately adjacent to the structure. However, what is meant by adjacent could vary depending on the property. In a letter dated March 8, 2000, the SHPO concurred with the APE definition (see Appendix A).

1) Archaeological Resources

It is unlikely that archaeological remains exist near the soil surface in the project area because most of the project area is fill and/or the soil surface has been highly disturbed in association with large-scale agriculture and urban development. Also, the APE along most of the project area would be within the H-1 Freeway and existing streets. However, archaeological deposits, including burials, have been discovered in the project area, such as in Chinatown, Downtown/Aloha Tower, the Capitol District, Kakaako, the University of Hawaii Historic District, the Fort DeRussy area, and along Kalakaua Avenue in Waikiki. Some of these discoveries were unexpected. For example, one human burial was discovered in 1997 during construction activities at Pier 40 in an area of reclaimed land, and three burials were found on a site adjacent to the Middle Street Bus Maintenance Facility in 1992. The sandy soil conditions of Fort DeRussy and Kalakaua Avenue make the discovery of burials in these locations not unexpected. Further study or monitoring would be conducted if required on a site-specific basis, depending on the construction activity (i.e. excavation).

Some of the Refined LPA's off-street elements are proposed to be in the Ewa plain, an area that has undergone substantial ground disturbance from past and present agricultural activities that would have removed or destroyed surface or near surface archaeological remains. However, natural archaeological/cultural features remain, such as Puu Kapolei. Other off-street elements of the Refined LPA are in urban areas where it is highly unlikely that there would be surface or near-surface archaeological resources or sites, but subsurface remains may be encountered if deep excavation is required.

2) Historic-Period Resources

The following program was used to identify historic-period resources in the APE. This program relied on consultation with the State Historic Preservation Division (SHPD).

1. Research of secondary data sources, such as previous survey reports and current NRHP and HR lists to identify known historic properties;
2. Conduct windshield surveys to identify buildings or structures that may be 50 years or older;
3. Obtain information on the age of buildings and structures identified in the windshield survey;
4. Consult with SHPD to eliminate buildings or structures that clearly would not meet NRHP Criteria;
5. Conduct inventory survey of the remaining buildings or structures after Step Four to assess eligibility for the NRHP; and
6. Obtain SHPD concurrence on NRHP eligibility assessment.

As described above, the APE for historic-period resources would not extend beyond the roadway for many of the elements of the TSM Alternative and Refined LPA because they would be at-grade and within roadway rights-of-way. There are no historic-period resources in the APE of the TSM Alternative. Similarly, there are no historic-period resources in the APE of the Regional BRT element of the Refined LPA, including project elements in Ewa and Aloha Stadium. However, the APE of the In-Town BRT element of the Refined LPA includes several historic-period resources, among them are the Chinatown Historic District, Hawaii Capital Historic District, and the University of Hawaii Historic District (see Table 3.10-1 and Figures 3.10-1A and 3.10-1B) because transit stops are planned to be located within each of these districts. Other historic-period resources listed on Table 3.10-1 and shown on Figures 3.10-1A and 3.10-1B were determined to be within the APE of the In-Town BRT because they are adjacent to proposed transit stops or would be affected by right-of-way acquisition. Many of the historic-period resources in the APE are located in an historic district. Descriptions of the three affected historic districts are provided below.

A. Chinatown Historic District

Chinatown (State Site 80-14-1380) is the oldest section of Downtown Honolulu. Constructed in the first decades of the 20th century, after the fire of 1900, Chinatown still retains a concentration of original and historically significant buildings, and its distinctive cultural activities and environment even of its earliest ethnic community. These historically significant buildings are primarily simple, two- and three-story structures of common materials, but with interesting details and harmonious designs. Typically the buildings abut the front and side property lines, with awnings over the sidewalks. Together, the buildings form a historical environment more significant than the individual structures.

The Chinatown BRT Stop is planned to be in proximity to two potentially historic properties, the Lung Doo Benevolent Society and Yew Char Buildings.

B. Hawaii Capital Historic District

The Hawaii Capital Historic District (State Site 80-14-1307) includes most of the important civic buildings in the core of Honolulu (see Figure 3.10-1B). The historic centralization of government services in Honolulu resulted in an unusual concentration of public and private architecture, spanning the years from 1820 (the Mission Frame House) through 1969 (the State Capitol Building).

The government buildings have inspired commercial firms, churches, the YMCA and YWCA, among others, to erect buildings complementing the civic structures. Most of the civic buildings are government-owned, but several are commercial or other institutional buildings. Some of the buildings in the district were specifically listed in the overall NRHP nomination, such as Iolani Palace and Grounds, Kawaiahao Church and Grounds, Saint Andrew's Cathedral, and the Mission Houses because they had already been placed individually on the NRHP. The U.S. Post Office, Custom House and Court House (State Site 80-14-9952), one of the two historic-period resources of the district in the APE of the In-Town BRT, was individually listed on the NRHP in 1975. Additional buildings were placed on the NRHP along with the district in 1978, including the other historic-period resources in the district in the APE, the Hawaii State Library (State Site 80-14-1307), There is a wide range of architectural styles in the district, with distinguished examples of Classical Revival, Romanesque, Spanish Mission, Italian Mediterranean, New England Colonial, French Baroque, and Georgian buildings.

The significance of this district resides in its architectural and visual character, its large amount of open space, and its central role in the history of Oahu and the Hawaiian Islands.

C. University of Hawaii Historic District

The University of Hawaii (UH) Historic District (State Site 80-14-1325) is a non-contiguous district that includes the historically significant structures on the Manoa campus (see Figure 3.10-1A). Structures (e.g., transit stops) associated with the In-Town BRT are not planned to be near the two areas of the campus that

contribute heavily to the historical significance of the district: the original quadrangle and a circular drive off Dole Street.

TABLE 3.10-1
KNOWN AND POSSIBLE HISTORIC-PERIOD RESOURCES IN THE APE

Loc. No.	Historic Resource	Street	State Site Number	Register Status[1]	Tax Map Key	Year Built
1	Chinatown Historic District	N. King St. and Hotel St.	80-14-9986	NRHP	All of plats 1-7-2,3,4, et al.	1900-1920
2	Lung Doo Benevolent Society	N. Hotel St.	None	*	1-7-3:33	
3	Yew Char Building	N. Hotel St.	None	*	1-7-3:42	
4	Portland Building	Hotel St.	None	DE (1/11/80)	2-1-10:13	1903
5	Hawaii Capital Historic District	Various	80-14-1307	NRHP	Various	--
6	U.S. Post Office, Custom House, & Court House (HCHD)	S. King St.	80-14-9952	NRHP	2-1-25:4	1871
7	Hawaii State Library	S. King St.	80-14-1307	NRHP	2-1-25:1	1913
8	Thomas Square	S. King St.	80-14-9990	NRHP	2-4-1:1	--
9	Kapiolani Boulevard historic landscape	Kapiolani Blvd.	None	*	Various	--
10	Blue Cross Animal Hospital	Kapiolani Blvd.	None	*	2-3-15:1	1938
11	Varsity Theater	University Ave.	None	TBD	2-8-006:032	1939
12	University of Hawaii Historic District	University Ave.	80-14-1325	HR	2-8-015:001	1931
13	Bachman Hall	UH Campus – University Ave.	None	*	2-8-023:003	1949
14	Dillingham Transportation Building	735 Bishop St.	80-14-9900	NRHP	2-1-14:03	1929
15	Ala Moana Park	Ala Moana Blvd.	80-14-1388	HR	2-3-37:01	--
16	Kapiolani Park (i/c Honolulu Zoo)	Kapahulu Ave.	80-14-9758	HR	Various	--

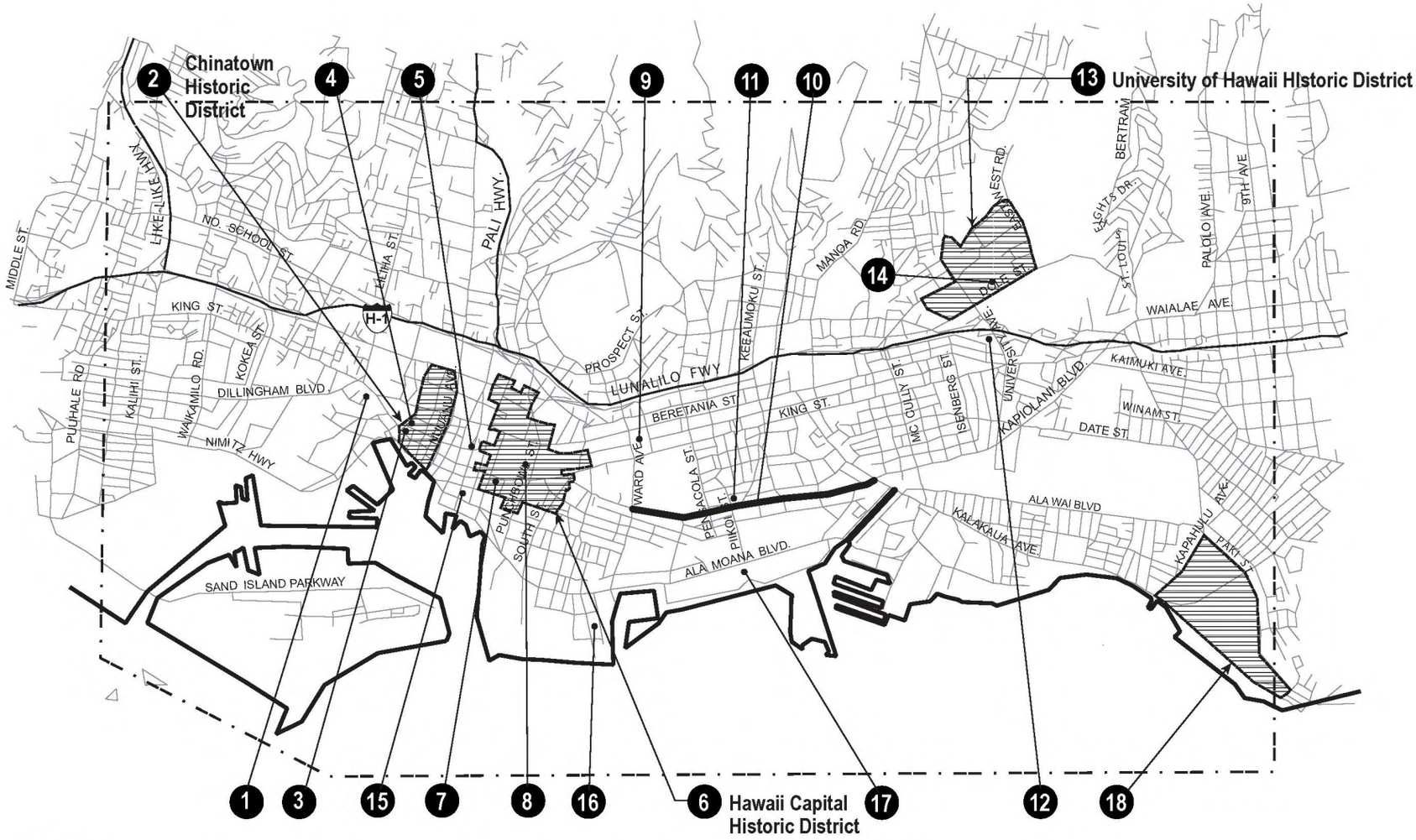
Source: Mason Architects, Inc. and State Historic Preservation Division, 2002
Notes: [1] Register Status:
NRHP Listed on National Register of Historic Places.
HR Listed on Hawaii Register of Historic Places (very likely to be eligible for the National Register).
DE Determined Eligible for the National Register by the Keeper of the NRHP.
* Determined eligible from consultation with SHPD on June 24, 2002.

In addition, In-Town BRT structures are not planned to be adjacent to other historic properties of the district, such as Founders Gate. However, the UH-Manoa BRT stop will be placed at Sinclair Circle and would be in proximity to Bachman Hall across a grassy lawn. The historic status of Bachman Hall has not been determined.

D. Other Historic-Period Resources

Other notable historic-period resources listed on Table 3.10-1 include Thomas Square (State Site 80-14-9990), Kapiolani Boulevard historic landscape, Dillingham Transportation Building (State Site 80-14-9900), Ala Moana Park, and Kapiolani Park, which includes Honolulu Zoo. The SHPD has designated the monkeypod trees along Kapiolani Boulevard as an historic landscape. These trees are considered "notable" because they are important to the urban landscape character.

Historic Sidewalk Features, which are typically curbs made of lava rocks and sidewalks made of Chinese granite, are located at various places throughout Honolulu, from Kalihi to University and Waikiki. They were used during earlier periods of Honolulu's development. The light-colored Chinese granite sidewalks tend to be limited to the Chinatown/Downtown area. Table 3.10-2 provides the locations along the proposed In-Town BRT alignment where lava curbs have been identified and may be affected.



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998; Mason Architects Inc., May 1999.

* Numbers correspond to Historic-Period Resources listed on Table 3.10-1

N

Scale: 0 .25 .50 mi

Historic-Period Resources In The Area Of Potential Effect: Kalihi To University Of Hawaii

Figure 3.10-1A

26 Iolani Barracks
27 Kamehameha Statue
28 Melim Building
29 Hawaiian Electric
30 Armed Services YMCA
31 State Office Building
32 Laniakea YWCA
33 Hawaii State Capitol and Grounds
34 Hawaii State Library
35 Iolani Palace and Grounds
(Old Archives and Court House)
36 Iolani Palace Bandstand
37 Ali'iolani Hale
38 Territorial Office Building
39 US Post Office,
Custom House and Court House
40 Kawaiaha'o Church and Grounds
(Lunalilo's Tomb and Adobe School House)
41 Mission House
42 Honolulu Hale and Grounds
43 Mission Memorial Building and Annex
44 Advertiser Building

SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998; Mason Architects Inc., May 1999.

* Numbers correspond to Historic-Period Resources listed on Table 3.10-1

N

Scale: 0 .0625 .125mi

Historic Period Resources in the Area of Potential Effect: Hawaii Capital Historic District

Figure 3.10-1B

TABLE 3.10-2
HISTORIC SIDEWALK AND CURB ELEMENTS
IN THE AREA OF POTENTIAL EFFECT OF THE IN-TOWN BRT

Location	Comments
CHINATOWN/DOWNTOWN	
Hotel Street at Kekaulike Mall	Makai side - all lava; Mauka side - mostly lava
Alakea Street between Queen Street and Nimitz Highway	KKHD Side - about 2.5 pieces of lava at existing bus stop
Bishop Street between Queen Street and Nimitz Highway	Ewa Side – lava curbs
South King Street at Punchbowl Street in front of State Library	Mauka side curb and edge of sidewalk all lava
KAKAAKO/MAKIKI	
South King Street at Alapai Street to Cooke Street	Mauka side - all lava to Cooke Street; Makai side – mostly lava
South King Street at Ward Avenue, in front of Thomas Square and Neal Blaisdell Center	Mauka side - all lava from Ward to Victoria St., except storm drain; Makai side - all lava at existing bus pull-out
South King Street at Pensacola Street, in front of Kaiser Honolulu Clinic	Mauka side - mostly lava; Makai side - all lava
WAIKIKI AREA	
Saratoga Road	Mostly lava rock

Source: Parsons Brinckerhoff, Inc., December 2001.
Note: Curbs locations surveyed approximately as shown in design drawings (SSFM, November 26, 2001). No granite sidewalks were noted during field surveys.

3) Traditional Cultural Properties or Practices (TCPs)

A traditional cultural property (TCP) may also be eligible for the NRHP. According to the National Register Bulletin 38, Guidelines for Evaluating and Documenting Traditional Cultural Properties (1994), a TCP is defined generally as a resource that is eligible for the NRHP because of its association with the cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. Consultation was held with the Office of Environmental Quality Control (OEQC) and the Office of Hawaiian Affairs (OHA) to identify potential TCPs in the study area.

Following the initial consultation, a panel of experts was formed and convened. Its purpose was to develop a working definition of "cultural practice" in an urban setting and to develop a working definition of the geographic boundary of the study area. The panel included a mix of individuals with expertise including cultural anthropology, urban planning, social impact assessment and planning, and ethnography.

The panel work session was held on May 24, 2001. It was agreed to define "cultural practices" to include the many traditions and ethnicities of Hawaii. The study corridor was identified, as the area between the H-1 Freeway and the ocean, and from Middle Street to Kapiolani Park. Several methods were employed to identify cultural areas and practices, such as using the knowledge of the panel members and key informants,

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driving and walking through the neighborhoods of the study area, and obtaining schedules and other publications that provide information about cultural events.

The panel was able to identify over 400 cultural practices, which were categorized in the following manner: From this list, two culturally significant districts were identified: Chinatown and Iolani Palace/Kamehameha Statue area. As stated above, both areas are already considered historic properties in part or whole.

Chinatown is the location of more than 70 cultural practices, the largest critical mass of practices identified in the study area. The "cultural character" of Chinatown is reinforced by the design of buildings, streets, and landscaping, as well as practices, such as the constant presence of sidewalk retail activities.

The Iolani Palace/Kamehameha Statue area, which is part of the Hawaii Capital Historic District, is culturally significant because of its historical and cultural symbolism. The "look" and the ability to carry out certain ceremonies in and through this area are important attributes, such as the starting point of the King Kamehameha Day Parade.

3.11 PARKLANDS

Parks and recreational facilities in the study area have been identified through a review of available mapping, coordination with City, State, and federal agencies, and field surveys. This section describes the findings of this work.

Hawaii's mild tropical climate encourages a variety of outdoor recreational activities. Consequently, numerous areas have been designated as parks and recreational areas on the island of Oahu. They are heavily utilized by the public for various activities, making Oahu's parks and recreational facilities valuable and important.

Through literature review, agency coordination and field review, parklands in the project area were identified. In addition to interviewing agencies, several documents were reviewed, including the Index of Oahu Parks and Facilities (City and County of Honolulu, April 1997); Existing State Parks and Other Areas Fiscal Year 1997-98 (State of Hawaii, 1998); aerial photos; and TMK Oahu Street and Condo Map Book, 12th Edition (Hawaii TMK Service, 1998).

This list was evaluated to identify those park and recreation resources located immediately adjacent to elements of the alternatives, including those located adjacent to proposed ramps, park-and-ride lots, and transit centers and transit stops. These parks and recreational facilities are listed on Table 3.11-1, and their locations are shown on Figures 3.11-1A through 3.11-1C.

TABLE 3.11-1
PARKLAND RESOURCES IMMEDIATELY ADJACENT TO PROJECT ELEMENTS

Map Key[1]	Park	Street	(Acres)	Classification [2]	Jurisdiction
1	Aloha Stadium	Kamehameha Hwy and Salt Lake Boulevard	97.44	Sports Arena	State of Hawaii
2	Aala Park	North King Street	6.69	Urban Park	City and County
3	Fort Street Mall	Fort Street	0.87	Mall	City and County
4	Chinatown Gateway Park	Bethel Street	0.40	Urban Park	City and County
5	Union Street Mall	Between Hotel and Bishop Streets	0.36	Mall	City and County
6	Iolani Palace State Monument	Hotel Street	10.60	Urban Park	State of Hawaii
7	Unnamed open space adjacent to federal building	Ala Moana Boulevard and Halekauwila Street	N/A	Urban Park	United States
8	Thomas Square	South Beretania Street, Ward Avenue and King Street	6.42	Urban Park	City and County
9	Mother Waldron Neighborhood Park	Pohukaina Street	1.76	Neighborhood Park	City and County
10	Ala Moana Regional Park, including Aina Moana Recreation Area (Magic Island)	Ala Moana Boulevard	119.18	Regional Park	City and County
11	Frank C. Judd Mini Park	Kapiolani Boulevard	0.37	Mini Park	City and County
12	Ala Wai Promenade	Kalakaua Avenue	4.43[3]	Urban Park	City and County
13	Ala Wai Community Park and Clubhouse	Kapiolani Boulevard	13.98	Community Park	City and County
14	Ala Wai Neighborhood Park	University Avenue	15.70	Neighborhood Park	City and County
15	Duke Paoa Kahanamoku Beach Park	Paoa Place	0.43	Beach Park	City and County
16	King Kalakaua Park (formerly Waikiki Gateway)	Kalakaua Avenue	0.57	Urban Park	City and County
17	Beachwalk Triangle	Beachwalk and Kalakaua Ave.	0.15	Urban Park	City and County
18	Princess Kaiulani Triangle	Kaiulani and Kuhio Avenues	0.12	Urban Park	City and County
19	Kuhio Avenue Mini Park	Kuhio Avenue	0.12[4]	Mini Park	City and County
20	Kuhio Beach Park	Kalakaua Avenue	3.40	Beach Park	City and County
21	Kapiolani Regional Park[5] (includes Honolulu Zoo)	Kapahulu and Kalakaua Avenues	154.73	Regional Park	City and County
22	Kapiolani Beach Park	Kalakaua Avenue	12.09	Beach Park	City and County
23	Waikiki Beach[6]	Kalakaua Avenue	unknown	Various	Various (City, State, and Private)
24	Irwin Memorial Park	Aloha Tower Drive	0.7	Urban Park	State of Hawaii
25	Makai Gateway Park	Ilalo Street	6	Community Park	State of Hawaii
26	Kakaako Waterfront Park	Kelikoi Street	30	State Park	State of Hawaii
27	Tamarind Park	Bishop/King Streets	N/A	Urban Park	Private

Sources: Parsons Brinckerhoff Inc., Initial Field Survey 1989, Update January 1992; City and County of Honolulu Department of Parks and Recreation, Index of Oahu Parks and Facilities, 1997; DLNR, State Parks Division, Existing State Parks and Other Areas, 1998, Agency Interviews, December 1999.

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TABLE 3.11-1 (CONT.)
PARKLAND RESOURCES IMMEDIATELY ADJACENT TO PROJECT ELEMENTS

Notes:

[1]Map Key refers to numbers on Figures 3.11-1A through 3.11-1C.

[2]Classifications:

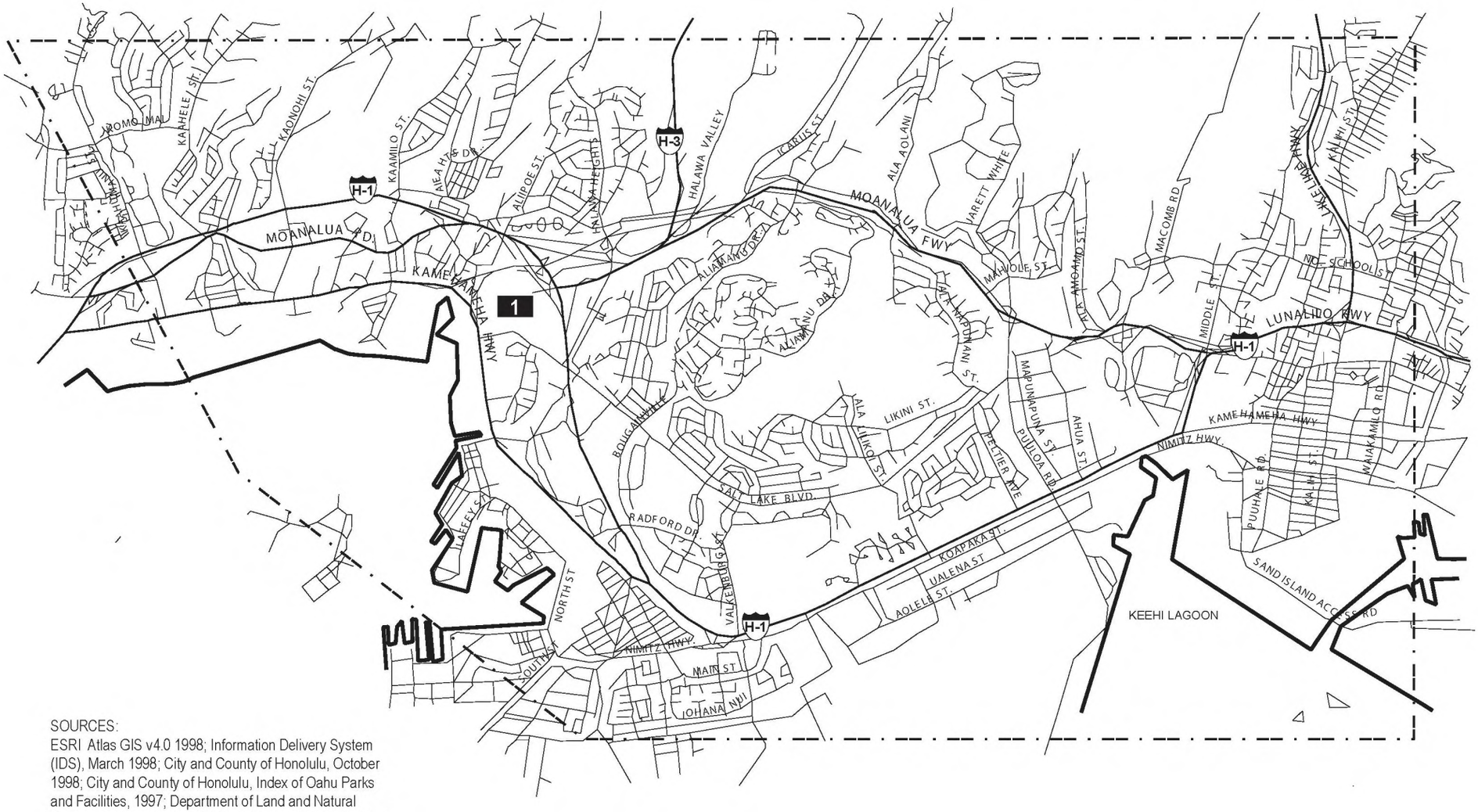
District Park - park approximately 20 acres in size servicing approximately 25,000 people, with playfields, recreation complex and passive areas.
Community Park - park approximately 10 acres in size servicing approximately 5,000 people with playfields, passive areas and a recreation building.
Neighborhood Park - park approximately 6 acres in size, servicing approximately 5,000 people, with playfields, courts, and a comfort station.
Mall - long, narrow, pedestrian walkway in commercial areas, with benches, water fountains, arbors, landscaping.
Mini Parks - small landscaped areas, servicing high-density areas with benches, picnic tables, and children's play areas.
Regional Park - Large area that may serve the entire island or region of the island with a variety of recreation park types and facilities, natural and cultural sites.
Urban Parks - Passive landscaped areas, usually located in residential or business areas.
Beach/Shoreline Park- Area along shoreline, with facilities to support water activities, picnicking, and other passive activities.
Classifications not included: Right-of-Ways, Traffic Related Areas, Military Parks and Unencumbered State Land

[3]Ala Wai Promenade has two portions, the Waikiki side and the Ewa side. The Ewa side is larger and measures roughly 4.43 acres. The size of the Waikiki side could not be determined, but it is a smaller, thin strip of land along the Ala Wai Canal, between Ala Moana Boulevard and McCully Street.

[4]The Kuhio Mini Park consists of three small areas along Kuhio Avenue. The area of only the largest of the three is known; the other two mini parks are landscaped bus stops.

[5]The acreage for Kapiolani Regional Park includes the Honolulu Zoo, the tennis courts, Paki Community Park, Waikiki Playground, and the community gardens.

[6]The name "Waikiki Beach" refers to a stretch of beach from the State-owned Duke Kahanamoku Beach to the edge of Sans Souci Beach, and does not refer to an official beach park area. Note that beach ownership in this area is both public and private.



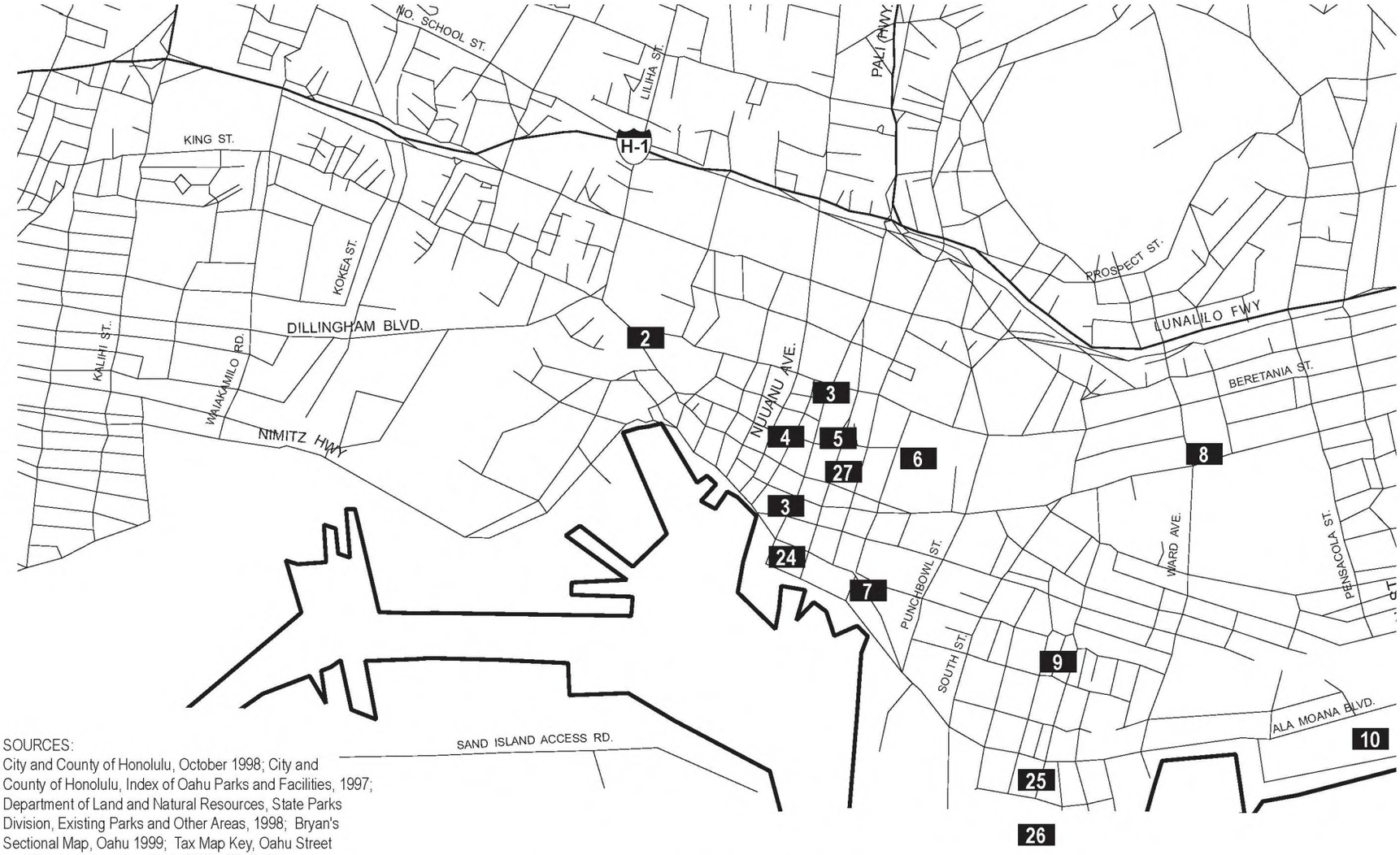
SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998; City and County of Honolulu, Index of Oahu Parks and Facilities, 1997; Department of Land and Natural Resources, State Parks Division, Existing Parks and Other Areas, 1998; Bryan's Sectional Map, Oahu 1999; Tax Map Key, Oahu Street and Condominium Map Book, 1998 12th Edition.

* Parklands' location/description can be found on Table 3.11-1

N Scale: 0 .25 .50 mi

Parkland Resources Adjacent To Project Elements: Aiea - Fort Shafter

Figure 3.11-1A



SOURCES:
City and County of Honolulu, October 1998; City and County of Honolulu, Index of Oahu Parks and Facilities, 1997; Department of Land and Natural Resources, State Parks Division, Existing Parks and Other Areas, 1998; Bryan's Sectional Map, Oahu 1999; Tax Map Key, Oahu Street and Condominium Map Book, 1998 12th Edition.

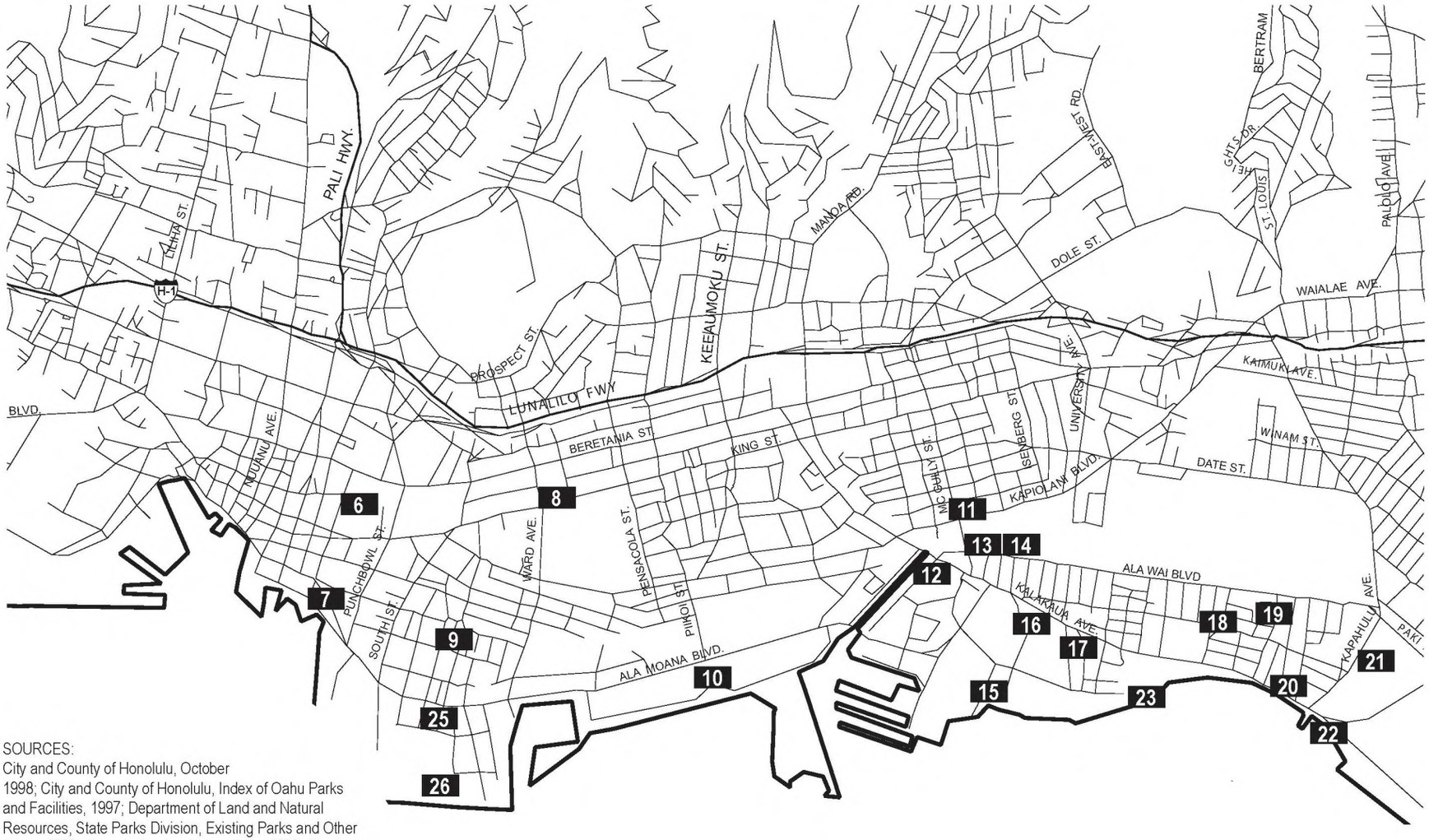
* Parklands' location/description can be found on Table 3.11-1

N

Scale: 0 .50 1 mi

Parkland Resources Adjacent To Project Elements: Fort Shafter - Downtown

Figure 3.11-1B



SOURCES:
City and County of Honolulu, October 1998; City and County of Honolulu, Index of Oahu Parks and Facilities, 1997; Department of Land and Natural Resources, State Parks Division, Existing Parks and Other Areas, 1998; Bryan's Sectional Map, Oahu 1999; Tax Map Key, Oahu Street and Condominium Map Book, 1998 12th Edition.

* Parklands' location/description can be found on Table 3.11-1

N

Scale: 0 .50 1 mi

Parkland Resources Adjacent To Project Elements: Downtown - Waikiki

Figure 3.11-1C

CHAPTER 4 TRANSPORTATION IMPACTS

CHAPTER OVERVIEW AND ORGANIZATION

This Chapter discusses transportation related impacts and performance, and is divided into two major parts. Section I covers the IOS and Section II covers the three alternatives for the Primary Corridor Transportation Project. The purpose of this presentation is to disclose fully the beneficial and adverse transportation related impacts of the project and to present proposed mitigation measures.

The first section of this Chapter is specific to the impacts of the IOS from Iwilei to Waikiki, the first segment of the Refined LPA to be built. The transportation impact analyses of the IOS reflect conditions in 2006, shortly after the opening of the IOS in 2005. The transportation impact analyses presented in Section II reflect conditions in 2025 for each of the entire primary transportation corridor alternatives- the No-Build Alternative, TSM Alternative, and Refined LPA.

I. IWILEI TO WAIKIKI (IOS) TRANSPORTATION IMPACTS AND MITIGATION

This section presents a summary of the potential transportation impacts associated with the IOS and No-Build conditions, as anticipated for the year 2006. Because 2006 is only three years from the time of the preparation of this document, traffic and transit volumes were factored by recent historical growth rates to produce a 2006 No-Build condition. The IOS was developed by maintaining the projected 2006 traffic volumes and modifying transit volumes to reflect proposed changes in transit service. The 2006 No-Build condition is different from the 2025 No-Build Alternative described and analyzed elsewhere in this FEIS. A more detailed presentation of the transportation impact assessment for the IOS is contained in Section IOS.4 (pages IOS-22 to IOS-31) in the IOS Chapter, which follows Chapter 5.

1) Transit Impacts

The IOS will operate in a combination of exclusive, semi-exclusive and mixed flow transit lanes. There will also be traffic signal priority at selected intersections to speed up BRT service.

The proposed average transit headways for the IOS is six minutes during peak periods and ten minutes during off-peak periods. Ten BRT vehicles will be needed to provide peak period service.

Most existing local and express bus service will be maintained, including Routes 19, 20, and 42 that travel on Ala Moana Boulevard as local service and Routes 201 and 202 that travel on Ala Moana Boulevard as express routes. Because the IOS will serve the same function as the existing Route 8, Route 8 will be replaced by the IOS. Likewise, Routes 55, 56, and 57 that provide suburban bus service from the windward side of Oahu to Downtown and then Ala Moana Center will terminate in Downtown, with the BRT providing service between Downtown and Ala Moana Center.

With these proposed changes, the forecasted Year 2006 linked transit trips and the daily transit boardings for the IOS are as summarized in Table 4-1.

The proposed enhancements included in the IOS are projected to result in approximately 4,500 new transit riders per day more than the No-Build condition in 2006 or about a fourth of the boardings on the IOS buses.

TABLE 4-1
PROJECTED YEAR 2006 TRANSIT RIDERSHIP

	Estimated Daily Trips/Boardings
Systemwide No-Build Daily Linked Transit Trips	199,680
Systemwide IOS Daily Linked Transit Trips	204,190
Projected New Transit Riders to System	4,510
Daily IOS Boardings	16,370

Source: Parsons Brinckerhoff, April 2003.

2) Urban Intersection Impacts

Because auto capacity along streets within the urban core of Honolulu is governed by intersection operations, intersection analyses were performed to assess the impacts of the IOS in relation to the No-Build condition. Key intersections along the IOS route were evaluated. These intersections were grouped into four areas for ease of discussion, and because traffic issues within these groupings tend to be similar. These areas are Downtown, Kakaako, Ala Moana-Fort DeRussy, and Waikiki.

Downtown Traffic Operations

The IOS will result in little difference from the No-Build condition in terms of traffic LOS at Downtown intersections. The maximum projected increase in intersection delay is 0.9 seconds, and this would occur at the Nimitz Highway/ Bishop Street intersection.

Kakaako Traffic Operations

There is very little difference in intersection operations forecast between the No-Build and IOS conditions. The lane geometry and signal operation of the intersections in Kakaako will be the same for the No-Build and IOS conditions. This includes Ala Moana Boulevard through Kakaako.

The IOS is proposed to operate in mixed traffic along Ala Moana Boulevard in the section between Queen Street and the Ala Wai Bridge. The lane conversions proposed in the future with the Refined LPA will take place when more of the Refined LPA is in place and the diversion of motorists to transit is sufficient to offset the traffic impacts of the lane conversions.

Ala Moana-Fort DeRussy Traffic Operations

The Ala Moana-Fort DeRussy area is located between the Ala Wai Canal (at Ala Moana Boulevard) on the Ewa end and Fort DeRussy on the Koko Head end. Ala Moana Boulevard, between Atkinson Drive and Kalakaua Avenue, experiences periods of congestion today. To help lessen the congestion, the IOS proposes to add a semi-exclusive transit lane in each direction on Ala Moana Boulevard between Holomoana Street and Kalia Road by reducing the width of the existing raised median and narrowing existing traffic lanes.

In the Koko Head-bound direction, the semi-exclusive lane is proposed to be added to the existing three general-purpose lanes. BRT vehicles, local buses, tour buses and trolleys, and vehicles making right-turns will be allowed into this semi-exclusive lane. The lane will begin just Ewa of Holomoana Street and continue to Kalia Road. The net effect in the Koko Head-bound direction will be to create a double right-turn movement, helping to accommodate the substantial existing and projected future right-turning traffic at Kalia Road.

In the Ewa-bound direction, the semi-exclusive lane will begin at the Kalia Road intersection. It will continue to Hobron Lane, where it will become a right-turn only lane except for City buses. City buses in the semi-exclusive lane will be given an advance green signal to allow BRT and other City buses to transition into the general purpose lanes without conflicting with other Ewa-bound through traffic on Ala Moana Boulevard. Ewa of Hobron Lane, the lane configurations will be the same for the No-Build and IOS conditions.

The analyses show that there will be an improvement in the LOS at the Hobron Lane intersection during the P.M. peak period with the IOS, otherwise there is no difference forecast between the No-Build and IOS conditions in terms of LOS for the other intersections along Ala Moana Boulevard.

The IOS includes widening of the two-lane segment of Kalia Road by one lane in each direction, with these lanes being designated as semi-exclusive lanes. BRT, local buses, private buses, and autos turning right into driveways on Kalia Road will be able to use these lanes. Removing these vehicles from the existing general-purpose lanes will provide room for other local traffic along this segment.

The Kalia Road/Ala Moana Boulevard intersection is expected to operate similarly between the No-Build and IOS conditions.

Kalia Road currently transitions from a two-way street to an Ewa-bound one-way street at Saratoga Road. The existing Saratoga/Kalia Road intersection is STOP-sign controlled. In the projected 2006 scenario, the IOS project will modify this intersection to make traffic movements between the Ewa Kalia leg and the Saratoga leg the through movement. The Koko Head Kalia leg would form a T-intersection with this through movement and will be signalized. This will not affect the LOS.

Waikiki Traffic Operations

The Waikiki area includes key intersections along Kalakaua and Kuhio Avenues between Saratoga Road and Kapahulu Avenue.

Lane configurations for intersections within this segment of the IOS alignment are the same for the No-Build and IOS conditions with the following exceptions: the makai curb lane on Kalakaua Avenue between Saratoga Road and Uluniu Avenue will be converted to a semi-exclusive lane in the IOS. This lane will be available for right turning vehicles and buses, both public and private. Another exception will occur at Kalaimoku Street. This street will be modified to accommodate an additional lane in the makai-bound direction between Kuhio Avenue and Kalakaua Avenue. The additional lane will be provided by eliminating on-street parking and narrowing the existing lanes on Kalaimoku Street. This configuration will allow BRT vehicles to return to Saratoga Road, which is a two-way street. The mauka-bound capacity for traffic on Kalaimoku Street will remain the same as with existing conditions. Also, on Saratoga Road at Kalakaua Avenue, a new lane will be added in the mauka-bound direction to allow an additional right turn movement onto Kalakaua Avenue.

The IOS in 2006 will operate in mixed traffic along Kuhio Avenue. The Refined LPA calls for the conversion of one of the Ewa bound lanes to a semi-exclusive transit lane in the future when the diversion of motorists to transit offsets the loss of the lane.

Minimal impacts are projected for the Waikiki segment when comparing the IOS to the No-Build condition. The BRT vehicles will run in mixed flow on Kuhio Avenue and Kapahulu Avenue and in semi-exclusive lanes on Kalakaua Avenue. On Kalakaua Avenue, the semi-exclusive lanes will be shared by BRT vehicles, tour buses, and vehicles making right turns onto cross streets. Analyses indicate that with this configuration, traffic LOS is not expected to be significantly different compared to the No-Build condition.

The Kalakaua Avenue/Saratoga Road intersection will have the most difference in peak hour operation with the IOS operating with slightly more delay per vehicle during the A.M. peak hour.

3) Parking Impacts

The only potential parking impacts with the IOS would be to on-street parking. Curbside parking spaces were counted as being affected if their expected use in Year 2006 will be affected in any way, either all day long or by limiting their use to off-peak hours.

The IOS will affect a total of 22 existing unrestricted spaces. Unrestricted spaces will be affected on Queen Street (5 marked spaces), Saratoga Road (5 marked spaces), and Kapahulu Avenue (12 marked spaces). The parking for the Kakaako Makai area will be coordinated with the Hawaii Community Development Authority (HCDA).

The IOS will not affect weekend, holiday, or overnight parking on the makai side of Ala Moana Boulevard adjacent to Ala Moana Park. The IOS will travel to Waikiki using the center lane during the off-peak times when vehicles are legally allowed to park along the curb.

Parking Impact Mitigation

Near each of the locations where on-street parking will need to be removed there are large existing off-street parking facilities with reserve capacity during most times to absorb the on-street parkers. Replacement of the removed parking is therefore not deemed necessary.

4) Loading Zone Impacts

Most loading zones are restricted to use by commercial vehicles, which are primarily tour buses and freight vehicles with permits. Other vehicles that may stand briefly in such loading zones include taxicabs, armored cars, and special transit service vehicles. Existing municipal bus stops are not considered loading zones.

Preliminary engineering for the IOS has taken into consideration the need to avoid impacts to passenger and freight loading zones. The IOS will therefore not result in any loading zone impacts.

5) Bicycling Impacts

The IOS is consistent with both the Honolulu Bicycle Master Plan (April 1999) and the State's Bike Plan Hawaii (1994). All buses will have bike racks to accommodate intermodal transit. New bike parking racks will continue to be installed around the city.

Impacts to Existing Bikeways and Cycling

Although most of the IOS alignment is not designated as a "bikeway", roadways along the segment are used by cyclists to varying degrees because of the paucity of bikeway facilities. Semi-exclusive/exclusive BRT curbside lanes will be provided on Hotel Street (existing bus lanes), Auahi Street, portions of Ala Moana Boulevard, Kalia Road, Saratoga Road in the vicinity of Fort DeRussy, and a segment of Kalakaua Avenue between Saratoga Road to Uluniu Street. Cyclists will be allowed to use these semi-exclusive/exclusive BRT curbside lanes, which will be an improvement in bicycle transportation over existing conditions where curbside lanes along these street segments are used by mixed or general traffic. The level of bicycle access and transportation service along the rest of the IOS will remain the same as today.

6) Pedestrian and Special Event Impacts

The IOS will be constructed along existing roadways and existing pedestrian street crossings will be preserved. Pedestrian access will be provided at transit stops in conformance with the Americans with Disabilities Act (ADA).

Moreover, the IOS will provide benefits for all pedestrians in a number of ways. Transit uses less space to carry more people than automobiles. The environmentally friendly transit vehicles that will be used with the IOS will produce less noise and air pollution. These factors will contribute to an improved urban walking experience.

The IOS will not affect parades and large events, such as the Hoolaulea, that are held on Ala Moana Boulevard and/or Kalakaua Avenue. When required, portions of the IOS can be rerouted during parades, just as the bus routes along these streets are rerouted during parades today, as stipulated by existing event detour plans.

The Waikiki Livable Communities Study has undertaken a comprehensive review of Waikiki with the intent of providing a more walkable environment for visitors and residents. One such improvement, the widening of sidewalks along Kuhio Avenue will be implemented concurrent with the IOS.

II. 2025 ALTERNATIVES

This part of Chapter 4 describes the transportation related impacts and performance of the Refined LPA and compares it to the No-Build and TSM Alternatives. The focus is on impacts and performance in 2025, the planning horizon for the Primary Corridor Transportation Project.

Several years have elapsed since publication of the MIS/DEIS. During this period some refinements have been made to the Locally Preferred Alternative based on community input and public comments. To maintain a fair comparison, comparable refinements have also been made to the No-Build and TSM Alternatives. These refinements are described in Chapter 2. Other differences from the MIS/DEIS that are reflected in this chapter of the FEIS are the following:

- The background highway network for all of the Alternatives in the FEIS has been updated to be consistent with the recently updated Oahu Metropolitan Planning Organization (OMPO) regional transportation plan contained in the report Transportation for Oahu Plan-TOP 2025. The MIS/DEIS included the committed to near-term projects that were in the then current Transportation Improvement Program (TIP) in the background highway network. The background highway network used in the FEIS is shown in Figure 2.2-1A in Chapter 2.
- The information presented in this chapter, as well as all of the evaluation information based on travel forecasts for 2025 presented in other chapters, has been developed using the most current travel demand forecasting models and procedures established by OMPO. These models simulate the choices made by residents and visitors regarding the nature, number, mode, time-of-day, and geographic orientation of trips that they make on an average weekday. The models have been developed with data obtained in extensive surveys of Oahu households, transit riders, and air passengers. The OMPO forecasting models used in the FEIS analyses reflect refinements to the OMPO models used in the MIS/DEIS, as OMPO continues to refine and improve their models. An explanation of the travel demand models is provided in section 4.1, and a full documentation of the OMPO forecasting models and procedures is available in OMPO Model Development Project, Final Documentation, 2002.
- Year 2025 forecasts reflect the population and employment projections that were prepared by the Department of Business, Economic Development and Tourism (DBEDT) in February 2000 and the zonal allocations that were prepared from these projections by the City's Department of Planning & Permitting. These revised forecasts are not significantly different from the forecasts used in the MIS/DEIS with the year 2025 population now forecast to be 5 percent lower and employment 4 percent higher than reflected in the MIS/DEIS.
- The BRT operations plan has been refined so that Regional BRT vehicles that serve the Middle Street Transit Center continue into town using the In-Town bus priority lanes rather than terminating at Middle Street. This will result in less transferring being required, faster travel times for riders, and more effective use of the In-Town BRT improvements.

Transportation performance is assessed in five principal areas: Island-wide and Corridor travel demand and indices, transit impacts, highway impacts, parking impacts, and bicycle and pedestrian impacts.

Implementation of the Refined LPA will be phased over 14 years, the first phase consisting of construction of the Initial Operating Segment (IOS), which is scheduled to begin in Calendar Year 2003. The IOS Chapter following Chapter 5 presents a detailed assessment of potential impacts resulting from implementation of this phase, as well as proposed mitigation measures.

4.1 OMPO TRAVEL DEMAND MODELS

Analyses of future transportation conditions conducted for the Primary Corridor Transportation Project were based on results obtained from the OMPO travel demand models. This section provides an overview of the elements of the travel demand model.

The OMPO travel demand models are analytic techniques that predict future travel demand based on land use, socioeconomic, and transportation system characteristics. Underlying the models is an assumption that demand for transportation is created by the separation of urban activities – the need to participate in these urban activities leads to a need for travel. The goal of analysis is to infer from the spatial distribution of activities the amount, type, and location of travel that a population will undertake. Regional travel forecasting requires: 1) gathering data at the lowest practical level of aggregation; 2) using official forecasts of population, employment, and income; 3) developing models to accurately represent travel behavior; and 4) applying the models to the forecast data inputs to produce forecasts of future travel patterns.

The travel demand model relies on the data of where individuals, businesses, and other places of activity are located (or will be located). In the case of forecasts, this is typically done in several steps: economic growth (basic employment) is estimated, then population growth stimulated by those jobs is estimated, then population-serving employment and attendant population increases are estimated. The resulting jobs and population (or households) are then allocated to small areas, or zones, of the region (typically, based on aggregations of census blocks, or in some cases, tracts.)

The State of Hawaii, Department of Business, Economic Development and Tourism (DBEDT) prepares forecasts for each county of total population, employment, personal income, and visitors. The City and County of Honolulu, DPP, allocates the population, dwelling units, and employment to the 726 TAZs.

The travel demand model incorporates numerous household and individual characteristics to make its forecast. Chief among these characteristics are household auto ownership and household or worker income.

The model also uses the performance of the transportation infrastructure available to each traveler. This infrastructure is described as networks of facilities through which transportation service is provided. The highway network in travel demand modeling is an abstraction of real or proposed facilities for serving the general driving public, commercial vehicles providing public transportation and goods movement services, bicyclists, and pedestrians. The abstraction emphasizes connectivity and spatial separation of the activity centers from which demand for travel emerges rather than representing physical details such as curvature, grade, and surface type, although these features are accounted for implicitly in the representation of vehicle throughput (capacity) for the roadway.

The transit network represents the spatial and temporal connectivity of the public transportation system on Oahu by relating transit routes and service levels to the highway network and thus to travel activity centers. The transit network abstraction allows generalized measures of separation to be determined between areas of the island which reflects weighted average in-vehicle travel time, access/egress time, out-of-vehicle waiting and transfer times, and cost.

The transportation networks provide a means for measuring the spatial separation between the groups of travelers and the opportunities they are attempting to realize. This separation, or as often called, impedance measure, affects the decisions travelers make in their destination, departure time, mode and route choices. The transportation networks are thus used to determine the demand for travel on routes between centers of activities. This demand for travel on routes of the networks may ultimately be related back to the transportation facilities being represented in the model to evaluate the transportation impacts of land use, facility, and service level changes, among other transportation policy concerns.

The population and employment forecasts, allocated to zones, and transportation networks become the inputs in the demand modeling process. They are used in conjunction with a set of models of travel behavior which, together with the abstracted demographic, economic, and infrastructure data, produce predictions of travel demand. The OMPO models of travel behavior include two sets of procedures, models of resident travel that forecast travel patterns of Oahu residents on an average weekday, and a set of ancillary models that forecast airport access trips, trips by visitors and trips by commercial vehicles. Following the estimation of travel demand (defined as numbers of trips between specified origins and destinations, by mode and by time of day) a final set of models are used to assign these trips to highway and transit networks.

The OMPO models of resident travel include five components:

- The Vehicle Ownership model estimates the distribution of vehicle-ownership levels by each type of household. It takes as input a distribution of households in each zone by their demographic characteristics, as produced by the land use model.
- The Trip Generation model predicts the trip-productions and trip attractions, stratified by 11 trip purposes, based on calibrated trip-rates applied to the numbers and characteristics of households and jobs in each zone on the island. The Vehicle-Ownership and Trip Generation models are applied together in a single computer program.

The 11 trip purposes used in the models of resident travel are:

1. Journey-to-Work – Home-Based Work
2. Journey-to-Work – Home-Based Non-Work
3. Journey-to-Work – Work-Based Non-Work
4. Journey-to-Work – Non-Home-Based, Non-Work-Based
5. Journey-at-Work – Work-Based
6. Journey-at-Work – Non-Work-Based
7. Non-Work-Related – Home-Based College
8. Non-Work-Related – Home-Based K-12 School
9. Non-Work-Related – Home-Based Shopping
10. Non-Work-Related – Home-Based Other
11. Non-Work-Related – Non-Home-Based

Examples of these trip purposes are described as follows:

a. A person leaves his home and goes to work (Journey-to-Work – Home-Based Work).

b. A person leaves his home heading toward work and stops at the dry cleaner (Journey-to-Work – Home-Based Non-Work). He continues on and then stops for a coffee (Journey-to-Work – Non-Home-Based, Non-Work-Based). He continues on and reaches work (Journey-to-Work – Work-Based Non-Work).

c. A person leaves work and goes to lunch (Journey-at-Work – Work-Based). He continues on to shop (Journey-at-Work – Non-Work-Based), and then returns to work (Journey-at-Work – Work-Based).

d. A person leaves his home and goes to college (Non-Work-Related – Home-Based College).

e. A person leaves his home and goes to high school (Non-Work-Related – Home-Based K-12 School).

f. A person leaves his home and goes shopping (Non-Work-Related – Home-Based Shopping). He continues on to a restaurant (Non-Work-Related – Non-Home-Based), and then returns home (Non-Work-Related – Home-Based Other).

- The Trip Distribution model applies a logit formulation to develop a zone-to-zone trip table for each trip purpose using the predicted trip productions and trip attractions in each zone together with zone-to-zone highway travel times derived from the highway network. The distribution model for several purposes uses segmentation by vehicle-ownership level. The model considers all travel over the average weekday for each trip purpose, using peak-period highway times for travel to/from work and school and off-peak highway times for all other trip purposes.
- The Mode Choice model applies a nested-logit formulation to estimate the shares of each zone-to-zone travel market that will use each of 10 competing travel options. The options include alternative modes (auto, transit, and non-motorized travel), occupancies (1, 2, and 3+ per vehicle), transit access-modes (walk, park/ride, and kiss/ride), transit paths (local, premium, and guideway), walking, and bicycling. The model considers a large number of characteristics of the trip, the traveler, and the competing travel options to estimate the shares attracted to each option. Like the Trip Distribution model, the Mode Choice model considers travel for an entire average weekday for each trip purpose, using peak travel conditions for commuter travel and off-peak conditions for all other trip purposes.
- The Time-of-Day/Direction model accomplishes several steps necessary to prepare trip tables for assignment to the highway and transit networks. First, it allocates the daily trip tables developed by the Trip Distribution model for each trip purpose across the individual time-periods of the day. Second, for the person-trips choosing one of the automobile options, it converts trip tables from production-attraction format to origin-destination format and computes vehicle trips based on the three occupancy levels. Finally, the model aggregates the resulting trips across trip purposes to produce time-period specific tables for assignment to the highway and transit networks.

The ancillary models include:

- The Airport Access trip procedures estimate vehicle trips generated by air travelers, to and from the airport. The estimation procedures consist of a trip generation step, a distribution step, and a mode choice/time of day step.
- The Visitor model utilizes a nested logit structure to simultaneously estimate the frequency/destination and mode choice of visitors traveling from hotels or resort condos to 25 key destinations on Oahu.
- The Truck trip estimation procedures estimate trips by 2-, 3-, and 4-axle trucks. The estimation procedures consist of a trip generation step, a distribution step, and a time of day step.

In the final travel demand modeling step, trips in the mode- and time-specific trip tables are assigned to paths in their respective infrastructure networks ("trip assignment.") The implied network performance (i.e., interzonal time characteristics) is calculated based on the volume expected on each link. The assignment algorithm typically assumes that each traveling party will attempt to minimize its individual cost ("generalized cost") for each trip.

The highway assignment procedures perform equilibrium capacity constraint assignments for the morning peak period (from 5 to 9 AM), the evening peak period (from 2 to 6 PM), and the off-peak period.

Transit trips are assigned by peak and off-peak time period to five different path types (walk-to-local-bus, walk-to-premium-bus, walk-to-guideway, kiss-n-ride, and park-n-ride). These results are then combined into one file for each time period, reporting volumes on each bus line in the network.

4.2 REGIONAL TRAVEL DEMAND AND SYSTEMWIDE PERFORMANCE

Chapter 1 of this FEIS, the Purpose and Need Chapter, summarizes existing and projected future travel demand for the Island of Oahu. The summaries show that travel to and from and within the urban core of Honolulu constitutes the majority of the travel that takes place on the island for both current and projected time frames. Because of the geographical constraints of the primary corridor (mountains on one side and ocean on the other), travel is concentrated along a linear corridor and focused onto a limited number of parallel highway and arterial streets. Even with the planned widenings and other improvements to the highway system, because of projected growth, congestion is forecast to get even worse than today. Community feedback from outreach activities such as the Trans 2K workshops have indicated that grade-separated structures and extensive roadway widening as means to reduce traffic congestion are unacceptable. Instead people indicated that they are in favor of solutions that increase the people carrying capacity of the existing transportation infrastructure. The BRT Alternative builds upon the already successful bus system in Honolulu and takes it to the next level with a bus rapid transit system.

The following sections summarize the regional transportation implications of implementing the Regional and In-Town BRT system as part of Oahu's multi-modal long-range regional transportation plan.

4.2.1 Person Trips By Mode

Table 4.2-1 summarizes the number of daily person trips projected for the year 2025 by mode. As shown, the Refined LPA is projected to result in the greatest number of transit person trips, about 52,000 more than the No-Build Alternative. Correspondingly, the Refined LPA would have the lowest number of auto person trips compared to the other Alternatives.

TABLE 4.2-1
PROJECTED YEAR 2025 DAILY SYSTEMWIDE
PERSON TRIPS BY MODE

Type of Trip	No-Build	TSM	Refined LPA
Auto Person Trips	3,367,860	3,368,250	3,302,070
Transit Person Trips	261,130	279,400	312,570

Source: Parsons Brinckerhoff Inc., June 2002.

4.2.2 Systemwide Highway Performance

Vehicular travel demand within the primary corridor is projected to exceed available capacity for all the Alternatives even with widening of the H-1 Freeway and other programmed roadway improvements as described in the TOP 2025 plan. Faced with this situation the goal has been to make the most efficient use of the roadway space available so that the greatest number of people can be served.

Table 4.2-2, Projected Year 2025 Daily Vehicle Miles of Travel (VMT) and Vehicle Hours of Delay (VHD), shows that in 2025 the Refined LPA (which has the highest level of transit service provided), would have the lowest VMT by autos and other vehicles compared to the TSM and No-Build Alternatives. This results from increased use of travel modes other than single-occupant-vehicles (SOVs); i.e. fewer vehicles, less VMT.

This is confirmed by the lower number of vehicle trips (and, therefore, more transit usage) projected to occur with the Refined LPA than with the TSM or No-Build Alternatives.

Lower VMT is also indicative of less traffic congestion. When there is a high level of traffic congestion, drivers often take longer and more circuitous paths as they "hunt" for less congested routes. This, in turn, affects neighborhoods as streets meant to accommodate local traffic become through traffic routes.

TABLE 4.2-2
PROJECTED YEAR 2025 TRAVEL DEMAND INDICATORS
DAILY VEHICLE MILES TRAVELED (VMT) AND VEHICLE HOURS OF DELAY (VHD)

Alternative	Time Period	VMT	VHD	Daily Vehicle Trips
No-Build	A.M.	5,145,570	177,750	555,140
	Off-Peak	6,846,540	81,065	877,875
	P.M.	5,596,345	192,890	660,150
	Total Daily	17,588,455	451,705	2,093,165
TSM	A.M.	5,133,800	173,015	554,970
	Off-Peak	6,840,120	81,255	878,365
	P.M.	5,587,195	184,155	660,250
	Total Daily	17,561,115	438,420	2,093,585
Refined LPA	A.M.	4,893,630	145,470	535,040
	Off-Peak	6,614,640	72,135	856,560
	P.M.	5,361,660	156,020	641,125
	Total Daily	16,869,930	373,625	2,032,725

Source: Parsons Brinckerhoff, Inc., June 2002.
Notes: VMT = vehicle miles traveled
VHD = vehicle hours of delay

Another indicator of regional travel is Vehicle Hours of Delay (VHD), which is the difference between free-flow and congested vehicle travel time. In 2025 the Refined LPA is projected to have substantially lower daily VHD than the No-Build or TSM Alternatives. This reduced VHD is indicative of less congestion on roadways islandwide.

4.2.3 Systemwide Transit Performance

To the extent that an alternative attracts more riders than another, it is providing better mobility by reducing travel time or cost. Increases in transit ridership also can be viewed as a proxy for many other transit benefits – reduced highway congestion, energy consumption, and emissions.

As shown in Table 4.2-3, the Refined LPA is forecast to attract more riders than either the TSM or No-Build Alternatives. Similarly, the Refined LPA would result in an increased percentage of transit trips (mode share) compared to the other alternatives. This indicates that the reductions in VMT, VHT, and Daily Vehicle Trips forecast for the Refined LPA are a result of a shift in mode from auto to transit.

TABLE 4.2-3
PROJECTED ISLAND-WIDE TRANSIT RIDERSHIP
(FORECAST YEAR 2025)

	No-Build	TSM	Refined LPA
Total Transit Trips (Daily Linked-Trips)	261,130	279,400	312,570
New Transit Trips compared with No-Build	Not Applicable	18,270	51,440
New Transit Trips compared with TSM	Not Applicable	Not Applicable	33,170
Transit Mode Share:			
All Trip Purposes	6.6%	6.9%	7.9%
Work Trips	14.7%	15.7%	18.4%

Source: Parsons Brinckerhoff, Inc., June 2002.

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The current level of transit ridership on Oahu is about the same as it was 20 years ago (73.5 million annual riders in 2002 compared to 73.8 million in 1982). During that period, however, transit ridership has seen periods of growth, and period of decline. From 1982 to 1994, transit ridership grew with generally a slow but steady growth rate at an average of about 0.4% per year. Over this same approximate time period, economic activity on Oahu, as measured by the civilian wage and salary job count, was also growing, though at a much more rapid rate of about 2.5% per year.

Following these period of growth were periods of decline in employment and in transit ridership. Since its low point in 1998, Oahu employment has increased by a little less than 1% per year (to 2001). Transit ridership in the three years since its low point in 1999 has also grown, at a rate of over 3.5% per year.

Therefore, in general, changes in transit ridership on Oahu have generally paralleled changes in employment levels, though the changes in direction of growth for transit have lagged those of employment by a year or two.

While the directions of growth and decline have been in parallel, the magnitude of changes have not. Differences during the 1980s and early 1990s are particularly notable. Even though Oahu employment was enjoying significant growth during this period, transit ridership grew only slightly. Several conditions led to this circumstance. Because of various policy and financial issues, bus service grew very little during this period. Bus revenue miles grew at a rate of only about 0.75% per year over this period, while the number of buses in the fleet remained nearly constant for half the period. Much of the route structure also remained static. However, while the bus system changed little during the period, other characteristics relating to travel on Oahu changed considerably. The 1980s and early 1990s saw considerable residential growth in areas outside the Primary Urban Center, areas not well served by the bus route structure in place. This expansion of urban development was helped by considerable investment in highway infrastructure up until the mid-1980s.

The relatively static nature of the bus system started to change in the early 1990s. A restructuring of the route system began, with the provision of new express routes and the provision of direct service for employees entering Waikiki from some locations that had previously required a transfer. Service improvements continued through the 1990s. Major changes have occurred in the early 2000s with introduction of limited-stop services and a hub-and-spoke system. While the system changes through most of the 1990s were occurring during a period of declining employment, the most recent changes have occurred as the economy has picked up. This period of economic growth and service improvements have seen significant transit growth – at a rate of over 3.5% per year.

Over the next 20+ years, to 2025, employment on Oahu is projected to increase by over 30% (2000-2025) at a rate of over 1% per year, about the same rate of growth as has occurred since 1998. The past 20 years have seen a period where transit ridership grew at a much slower rate than employment growth; and a period, over the last three years, where transit ridership has grown at a much more rapid rate than employment growth. The next 20+ years are not anticipated to see the same sort of land use changes that worked against transit in the 1980s, as the majority of development growth is projected to occur in the Primary Urban Center and Kapolei/Ewa. Nor are significant improvements to the highway system expected. Thus, a replay of the 1980s and early 1990s, when transit growth lagged far behind employment growth is not anticipated.

On the other hand, the 2025 No-Build Alternative does not assume the level of improvements in transit service that have occurred during the past couple of years, so a continuation of the current trend where transit ridership growth is occurring at 3.5 times the rate of employment growth also is not anticipated. Rather, the 2025 No-Build Alternative estimates that transit growth to 2025 will occur at a slightly faster rate than employment growth (1.4% per year versus 1.1% per year). Transit growth, due to the significant improvements in transit service, is forecast to be 2.35 % per year with the Refined LPA.

4.2.4 Highway Screenlines

Another indicator used in evaluating roadway mobility is the comparison of projected traffic volume versus roadway capacity at selected screenlines. A screenline is an imaginary line that cuts across roadways in a transportation corridor. In a screenline analysis the traffic volumes and capacities of all major roadways passing through the imaginary line are summed and compared as a volume over capacity (v/c) ratio. A v/c ratio greater than one indicates that demand exceeds capacity, which, in turn, indicates that traffic congestion would occur at that screenline. Figure 1.2-3 in Chapter 1 illustrates the location of the screenlines used in the analysis.

Tables 4.2-4 and 4.2-5 summarize the projected Year 2025 peak hour, peak direction traffic volumes, the associated roadway capacities, and the resulting volume over capacity ratio (v/c ratio) for the A.M. and P.M. peak hours, respectively at those screenlines. A useful index to categorize v/c is Level of Service (LOS). LOS is a qualitative index based on the v/c quantitative analysis that involves traffic volumes, number of roadway lanes and their configurations, and traffic signal timing and phasing. LOS ranges from A, (free-flow conditions) to F, (congested conditions).

As shown in Tables 4.2-4 and 4.2-5, even with the significant highway improvements recommended in the OMPO long-range regional transportation plan, year 2025 travel demand on roadways is projected to exceed capacity at many of the screenlines within the primary corridor. At almost all of the screenlines the level of congestion would be equal or less with the Refined LPA compared to the No-Build and TSM Alternatives.

The most congested location is forecast to be at the Kalauao screenline in the Pearl City-Aiea sub-region. This screenline has only three major roadways: H-1 Freeway, Moanalua Road, and Kamehameha Highway. The OMPO long-range regional transportation plan recommends that H-1 in this area be widened by one lane in each direction. Even with such widening, the v/c ratio is still projected to be well above 1.0 with all of the Alternatives. However, as shown in Table 4.1-5 the congestion in this area would be substantially less during the afternoon peak period with the Refined LPA that has the addition of the P.M. zipper lane.

4.2.5 Summary

Forecasted year 2025 travel demand is projected to result in continued congestion on regional roadways within the primary corridor. This level of congestion is projected to be worse than today and, in conjunction with other factors such as cost of parking, will result in commuters seeking alternative modes of transportation. The Refined LPA, with its enhanced zipper lanes, and in-town priority treatments will provide a way to avoid this congestion, thereby attracting more new riders than the No-Build and TSM Alternatives.

4.3 TRANSIT IMPACTS

In the previous section (4.2), the Refined LPA was identified as having the highest level of transit ridership. This section discusses and compares the transit characteristics of the No-Build, TSM, and Refined LPA Alternatives in further detail.

4.3.1 Transit Service Supplied

Transit service levels that would result from each alternative and their relative differences in the levels of service provided between the alternatives are highlighted in this section. Table 4.3-1 offers several indicators of how much transit service would be supplied to transit riders under each alternative. Revenue miles are the number of miles a transit vehicle is open to the paying public to ride. Revenue hours are the number of hours people can ride transit, excluding times when the vehicles are operating but not open to the public (e.g., when a bus leaves its route to return to the garage). All the future alternatives would increase the fleet size, service revenue miles, and revenue hours over the system today.

TABLE 4.2-4
PRIMARY CORRIDOR
ESTIMATED LEVEL OF SERVICE AT SCREENLINES, 2025 A.M. PEAK HOUR INBOUND

Screenline Name	No-Build				TSM				Refined LPA			
	Vehicle Volume	Capacity	V/C Ratio	LOS	Vehicle Volume	Capacity	V/C Ratio	LOS	Vehicle Volume	Capacity	V/C Ratio	LOS
Kahe Point	4,596	4,050	1.13	F	4,597	4,050	1.14	F	4,328	4,050	1.07	F
Ewa	8,617	11,700	0.74	C	8,484	11,700	0.73	C	7,850	11,700	0.67	B
Waikele	12,973	11,500	1.13	F	12,892	11,500	1.12	F	12,244	11,500	1.06	F
Kalauao	25,089	17,650	1.42	F	24,904	17,650	1.41	F	23,669	17,650	1.34	F
Moanalua	22,072	22,100	1.00	F	22,028	22,100	1.00	F	20,392	22,100	0.92	E
Kapalama	23,595	22,700	1.04	F	23,326	22,700	1.03	F	21,224	21,800	0.97	E
Nuuanu	23,422	20,300	1.15	F	22,541	20,300	1.11	F	20,700	20,300	1.02	F
Ward	21,132	20,200	1.05	F	20,434	18,300	1.12	F	19,358	19,300	1.00	F

Source: Parsons Brinckerhoff, Inc., June 2002.
Note: * LOS F caused by downstream congestion.

TABLE 4.2-5
PRIMARY CORRIDOR
ESTIMATED LEVEL OF SERVICE AT SCREENLINES, 2025 P.M. PEAK HOUR OUTBOUND

Screenline Name	No-Build				TSM				Refined LPA			
	Vehicle Volume	Capacity	V/C Ratio	LOS	Vehicle Volume	Capacity	V/C Ratio	LOS	Volume	Capacity	V/C Ratio	LOS
Kahe Point.	4,365	4,050	1.08	F	4,233	4,050	1.05	F	4,001	4,050	0.99	E
Ewa	9,497	11,700	0.81	D	9,350	11,700	0.80	D	8,737	11,700	0.75	C
Waikele	11,710	12,500	0.94	E	11,567	12,500	0.93	E	11,154	12,500	0.89	D
Kalauao	21,936	15,900	1.38	F	21,822	15,900	1.37	F	20,944	17,650	1.19	F
Moanalua	20,599	19,900	1.04	F	20,524	19,900	1.03	F	19,557	21,600	0.91	E
Kapalama	22,541	22,700	0.99	E	22,106	22,700	0.97	E	20,683	21,800	0.95	E
Nuuanu	22,358	20,500	1.09	F	22,084	20,500	1.08	F	21,184	20,500	1.03	F
Ward	21,592	24,400	0.88	D	21,813	22,500	0.97	E	20,689	20,600	1.00	F

Source: Parsons Brinckerhoff, Inc., June 2002.
Note: * LOS F caused by downstream congestion.

TABLE 4.3-1
PROPOSED TRANSIT SERVICE INDICATORS
(FORECAST YEAR 2025)

	2000 System	No-Build	TSM	Refined LPA
Annual Revenue Miles (million)	17.10	19.27	23.96	26.01
Annual Revenue Hours (million)	1.25	1.29	1.44	1.63
Fleet Size	530	626	700	794

Source: Parsons Brinckerhoff, Inc., June 2002 and Federal Transit Administration, 2000 National Transit Database.

Each build alternative (TSM and Refined LPA) would provide more revenue miles and revenue hours than the No-Build Alternative, indicating increased capacity and more frequent service. The increase of the No-Build Alternative of 2025 over 2000 would be about a 13 percent increase in annual revenue miles. The TSM Alternative would have approximately a 40 percent increase over 2000. The Refined LPA would have approximately a 52 percent increase over 2000. The higher amount of revenue hours and revenue miles with the Refined LPA is a reflection of the objective to provide added person carrying capacity in the corridor without building new roadways.

4.3.2 Ridership Impacts of the Alternatives

This section presents the impacts of the alternatives on the use of transit. This is important since an increase in transit ridership demonstrates the improved access and operating efficiency of the system. It begins with a comparison in terms of islandwide ridership, then proceeds to look at ridership in key travel markets.

1) Impact on Ridership Within the Primary Transportation Corridor

Table 4.2-3 showed the island-wide forecast of transit ridership for Oahu. Island-wide, the Refined LPA is projected to attract 51,440 more riders per day than the No-Build and 33,170 more than the TSM Alternative. A more complete understanding of the differences among the alternatives can be discerned by examining ridership within the primary transportation corridor, which is the focus of this FEIS. The Refined LPA would attract additional transit riders by both improving in-town mobility and strengthening the connections throughout the corridor. The increases in ridership and mode split shown in Table 4.3-2 reflect the service benefits – particularly reduced travel time – which such a system would provide within the primary transportation corridor.

TABLE 4.3-2
PROJECTED TRANSIT RIDERSHIP WITHIN THE PRIMARY TRANSPORTATION CORRIDOR
(DAILY LINKED-TRIPS IN 2025)

	No-Build	TSM	Refined LPA
Total Transit Ridership within the Primary Transportation Corridor	202,000	216,130	234,390
Transit Mode Share:			
All Trip Purposes	8.5%	8.7%	10.0%
Work Trips	19.2%	19.5%	22.6%

Source: Parsons Brinckerhoff, Inc., June 2002.

While the TSM Alternative would provide greater service benefits than the No-Build Alternative, the added benefits of a high capacity BRT system are shown to attract substantially more riders within the primary transportation corridor.

With regard to the Refined LPA, its projected 312,570 average daily linked-transit trips, island-wide, are forecast to account for 432,430 transit boardings on an average weekday in 2025. This compares to current average daily linked-transit trips of 185,660. The increase in daily ridership would represent a 68 percent increase. As shown in Table 4.3-3 approximately 19 percent of the daily transit boardings island-wide would involve use of the In-Town BRT.

TABLE 4.3-3
TRANSIT RIDERSHIP BY SUB-MODE
(FORECAST YEAR 2025)

Transit Sub-Mode	Refined LPA Daily Transit Boardings
Boardings on Regional BRT and Local Buses	348,350
Boardings on In-Town BRT	84,080
Total Boardings	432,430

Source: Parsons Brinckerhoff, Inc., June 2002.

2) Other Measures of Service

The ridership forecasting results can be used to compute several other indicators of the level of service provided by each alternative. These measures are presented in Tables 4.3-4 and 4.3-5 and discussed below.

TABLE 4.3-4
OTHER MEASURES OF SERVICE
(FORECAST YEAR 2025)

Measure	No-Build	TSM	Refined LPA
Boardings per Linked Trip (Transfer Rates)	1.29	1.33	1.38
Passenger per Seat at Peak Load Point (Comfort)	1.31	1.01	0.90

Source: Parsons Brinckerhoff, Inc., June 2002.

TABLE 4.3-5
PROJECTED 2025 PM PEAK HOUR TRANSIT TRAVEL TIMES
WITHIN THE PRIMARY CORRIDOR

	No-Build	TSM	Refined LPA
	Transit Travel Time (minutes)	Transit Travel Time (minutes)	Transit Travel Time (minutes)
Downtown–Kapolei	83.1	78.0	58.2
Downtown-Mililani	66.5	61.5	42.1
Downtown-Waikiki	25.0	25.0	23.1
Downtown-U.H.-Manoa	24.4	23.3	22.6
Downtown-Middle St. TC	17.6	16.3	13.3

Source: Parsons Brinckerhoff, Inc., June 2002.

Transfer Rates

One indicator of the level of service is the number of transfers a typical rider must make to complete a trip. Riders prefer not to transfer, unless transferring results in other benefits such as a shorter total travel time. In Table 4.3-4, the amount of transferring is expressed in terms of the number of boardings per linked transit trip. The Refined LPA would involve the greatest amount of transferring. With the No-Build and TSM Alternatives

more riders would have a one-mode ride from origin to destination. The additional transferring in the Refined LPA is to a high degree offset by the more frequent, more comfortable, and more reliable service provided, and in many cases by the shorter total travel time provided by the Refined LPA.

Comfort

Level of comfort can be measured in terms of the probability of getting a seat on the transit vehicle during the peak hour. As shown in Table 4.3-4, the seated capacity of the TSM Alternative would be about equal to the demand. On an average weekday, there would be at least one seat for every rider even at the heaviest used part of the system. The seated capacity of the Refined LPA would be slightly greater than the demand. With the No-Build Alternative, however, the ridership demand would exceed the seated capacity by over 30 percent. Almost a third of all riders would not find a seat and would be required to stand. In some instances with the No-Build Alternative, buses would be full and would pass by riders waiting at stops.

Reliability of Service

Another component of transit level of service is the reliability of the service, or the likelihood the service will remain on schedule. In most cases, the reliability of service is correlated to the amount of the service that utilizes exclusive and semi-exclusive lanes. Transit service in local mixed traffic is most subject to delays caused by traffic congestion, as discussed in Section 4.3. Transit service in an exclusive or semi-exclusive lane is less subject to delays caused by other vehicles or outside events. The Refined LPA can thus be expected to be less affected by traffic delays and offer more reliable service, which will play a role in attracting transit riders.

Transit Travel Time in the Primary Transportation Corridor

The Refined LPA is the only alternative to provide a P.M. zipper lane and major ramp improvements for buses along the H-1 Freeway. It also, because of the transit priority lanes in-town, is projected to result in better transit LOS at the analyzed intersections within the urban core. This means that, because of the congestion on the roadways and the provision of exclusive and semi-exclusive lanes, the Refined LPA would provide faster transit travel times and more reliable service within the Primary Corridor than either the TSM or No-Build Alternatives.

Travel time differences by 2025 are shown in Table 4.3-5, Transit Travel Time Within the Primary Corridor, for selected origins and destinations. Table 4.3-5 shows that the P.M. zipper lane and priority transit lanes in-town provided in the Refined LPA will allow the BRT to operate significantly faster than buses in the No-Build Alternative, where no new priority is given to transit vehicles. The travel times shown include time spent walking to-and-from transit stops and time spent waiting for the bus, as well as the in-vehicle travel time.

4.3.3 Ridership on the In-Town BRT

This section provides detailed information on the projected ridership for the In-Town BRT , including the number of boardings and alightings projected for each stop and the link volumes between stops.

1) Boardings and Alightings

Table 4.3-6 shows how the 84,080 daily boardings on the In-Town BRT would be distributed by stop. The heaviest utilized stops would be the Middle Street Transit Center, which is the Ewa terminus of the In-Town BRT, and the Union Mall stop in Downtown Honolulu before the UH and Waikiki lines branch. Of the 84,080 daily In-Town boardings, 22,570 would occur on the two lines between Middle Street and Downtown Honolulu, 45,240 would occur on the Kakaako/Waikiki Branches and 16,270 would occur on the University

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TABLE 4.3-6
REFINED LPA
PROJECTED IN-TOWN BRT STATION BOARDINGS AND ALIGHTINGS
(TOTAL DAILY IN YEAR 2025)

Eastbound			Westbound		
Station	**On**	**Off**	**Station**	**On**	**Off**
From Regional BRT	14,210				
Middle Street to Downtown Honolulu			**University Branch**		
Middle Street Transit Center	7,720	2,150	UH Manoa	2,055	
Kalihi	1,395	650	University/King	1,100	140
Honolulu Community College	2,600	725	Isenberg	940	260
Iwilei Transit Center	1,720	270	Convention Center	1,010	270
Chinatown	1,650	860	Keeaumoku/Ala Moana Center	1,450	565
Union Mall		2,830	Pensacola	570	290
UH Manoa Branch			McKinley High School	1,355	435
Union Mall	1,040		Thomas Square	285	130
Iolani Palace	220	1,120	Alapai Transit Center	2,755	280
Alapai Transit Center	280	2,755	Iolani Palace	1,120	220
Thomas Square	130	285	Union Mall		1,040
McKinley High School	435	1,355	**Waikiki Branch – Ward to Waikiki**		
Pensacola	290	570	Kapahulu	3,320	
Keeaumoku/Ala Moana Center	565	1,450	Kalakaua/Uluniu	3,930	80
Convention Center	270	1,010	Kalakaua/Seaside	5,245	500
Isenberg	260	940	Saratoga	4,180	290
University/King	140	1,100	Fort DeRussy	2,710	2,720
UH Manoa		2,055	Hobron	1,965	810
Kakaako Mauka Branch			Ala Moana Park	1,600	3,780
Union Mall	2,785		Kamakee		585
Bishop/Queen	2,510	1,805	**Kakaako Mauka Branch**		
Federal Building	380	660	Kamakee	1,280	
Cooke Street	1,045	1,860	Cooke Street	1,860	1,045
Kamakee		1,280	Federal Building	660	380
Kakaako Makai Branch			Bishop/Queen	1,805	2,510
Union Mall	75		Union Mall		2,785
Aloha Tower	130	25	**Kakaako Makai Branch**		
Channel Street	395	70	Kamakee	25	
Cooke Street	65	155	Ahui Street	190	70
Ahui Street	70	190	Cooke Street	155	65
Kamakee		25	Channel Street	70	395
Waikiki Branch – Ward to Waikiki			Aloha Tower	25	130
Kamakee	585		Union Mall		75
Ala Moana Park	3,780	1,600	**Downtown Honolulu to Middle Street**		
Hobron	810	1,965	Union Mall	2,830	
Fort DeRussy	2,720	2,710	Chinatown	860	1,650
Saratoga	290	4,180	Iwilei Transit Center	270	1,720
Kalakaua/Seaside	500	5,245	Honolulu Community College	725	2,600
Kalakaua/Uluniu	80	3,930	Kalihi	650	1,395
Kapahulu		3,320	Middle Street Transit Center	2,150	7,720
			To Regional BRT		14,210
Total	**49,145**	**49,145**	***Total***	**49,145**	**49,145**

Source: Parsons Brinckerhoff, Inc., June 2002.

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Branch. An additional 14,210 boardings would occur on buses that started along the Regional BRT segment and continued into town along the In-Town BRT alignment.

Transit riders arrive at their boarding station by walking, by bus, and by driving or being dropped off. Table 4.3-7 shows how many people are expected to arrive at each stop on the In-Town BRT by each mode. Almost 66 percent, or 64,700, of all In-Town BRT riders are expected to arrive by walking, and another 32 percent, or 31,910, would arrive by bus. Transfers from other buses are expected at 20 of the stops, with almost 72 percent of the transfers occurring at Middle Street Transit Center.

TABLE 4.3-7
REFINED LPA
PROJECTED IN-TOWN BRT MODE OF ARRIVAL
(FORECAST YEAR 2025)

Station	Walk	Bus	Drive
Middle Street Transit Center	120	23,020	950
Kalihi	1,420	630	0
Honolulu Community College	3,030	40	250
Iwilei Transit Center	1,720	10	260
Chinatown	2,510	0	0
Union Mall	10,140	910	0
Iolani Palace	1,330	10	0
Alapai Transit Center	2,680	350	0
Thomas Square	390	430	0
McKinley High School	1,310	480	
Pensacola	830	30	0
Keeaumoku/Ala Moana Center	1,950	70	0
Convention Center	1,280	0	0
Isenberg	710	490	0
University/King	560	680	0
UH Manoa	1,320	730	0
Aloha Tower/Federal Bldg.	1,380	280	0
Cooke Street	2,910	480	0
Kamakee	1,830	60	0
Ala Moana Park	5,320	60	0
Hobron	2,780	0	0
Fort DeRussy	5,430	0	0
Saratoga	3,200	1,020	250
Kalakaua/Seaside	500	0	0
Kuhio/Seaside	5,240	0	0
Kalakaua/Uluniu	80	0	0
Kuhio/Liliuokalani	3,930	0	0
Kapahulu	790	2,530	0
Total	**64,700**	**31,910**	**1,710**

Source: Parsons Brinckerhoff, Inc., June 2002.

Kapahulu, University/King, Kalihi, and Isenberg are the next most frequent bus transfer stops. Less than 5 percent of all In-Town BRT riders are expected to arrive by auto.

2) Link Volumes

Table 4.3-8 displays the forecast of In-Town BRT link volumes between stops for the Refined LPA. As shown, the Ewa end of the In-Town BRT will be more heavily utilized than the Koko Head termini. On the Ewa end, the In-Town BRT would carry a relatively uniform load from Middle Street to Downtown Honolulu, reaching a maximum of approximately 24,640 one-way daily riders on the Chinatown to Union Mall segment. Heading Koko Head from Downtown, the link volumes are projected to decrease as the ends of the UH and Waikiki branches are reached.

TABLE 4.3-8
REFINED LPA
PROJECTED IN-TOWN BRT LINK VOLUMES
(TOTAL DAILY IN YEAR 2025)

Eastbound		Westbound	
Segment	**Volume**	**Segment**	**Volume**
From Regional,	14,210		
Middle Street to Downtown Honolulu		**University Branch**	
Middle Street Transit Center to Kalihi	19,780	UH Manoa to University/King	2,055
Kalihi to Honolulu Community College	20,525	University/King to Isenberg	3,015
Honolulu Community College to Iwilei Transit Center	22,400	Isenberg to Convention Center	3,695
Iwilei Transit Center to Chinatown	23,850	Convention Center to Keeaumoku/Ala Moana Center	4,435
Chinatown to Union Mall	24,640	Keeaumoku/Ala Moana Center to Pensacola	5,320
University Branch		Pensacola to Thomas Square	6,520
Union Mall to Iolani Palace	9,150	Thomas Square to Alapai Transit Center	6,675
Iolani Palace to Alapai Transit Center	6,675	Alapai Transit Center to Iolani Palace	9,150
Alapai Transit Center to Thomas Square	6,520	Iolani Palace to Union Mall	10,050
Thomas Square to Pensacola	5,600	**Kakaako/Waikiki Branch**	
Pensacola to Keeaumoku/Ala Moana Center	5,320	Kapahulu to Kuhio/Liliuokalani	3,320
Keeaumoku/Ala Moana Center to Convention Center	4,435	Kuhio/Liliuokalani to Kuhio/Seaside	7,170
Convention Center to Isenberg	3,695	Kuhio/Seaside to Saratoga	11,915
Isenberg to University/King	3,015	Saratoga to Fort DeRussy	15,805
University/King to UH Manoa	2,055	Fort DeRussy to Hobron	15,795
Kakaako/Waikiki Branch		Hobron to Ala Moana Park	16,950
Union Mall to Aloha Tower/Fed. Bldg.	16,190	Ala Moana Park to Kamakee	14,770
Aloha Tower/Federal Building to Cooke Street	15,610	Kamakee to Cooke Street	15,610
Cooke Street to Kamakee	14,185	Cooke Street to Aloha Tower/Federal Building	16,190
Kamakee to Ala Moana Park	14,770	Aloha Tower/Federal Building to Union Mall	15,660
Ala Moana Park to Hobron	16,950	**Downtown Honolulu to Middle Street**	
Hobron to Fort DeRussy	15,795	Union Mall to Chinatown	24,640
Fort DeRussy to Saratoga	15,805	Chinatown to Iwilei Transit Center	23,850
Saratoga to Kalakaua/Seaside	11,915	Iwilei Transit Center to Honolulu Community College	22,400
Kalakaua/Seaside to Kalakaua/Uluniu	7,170	Honolulu Community College to Kalihi	20,525
Kalakaua/Uluniu to Kapahulu	3,320	Kalihi to Middle Street Transit Center	19,780
		To Regional	14,210

Source: Parsons Brinckerhoff, Inc., June 2002.

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4.4 HIGHWAY IMPACTS

The Islandwide Mobility Concept Plan (1999), one of the principal frameworks of the Primary Corridor Transportation Project, and a direct outcome of the Oahu Trans 2K workshops, acknowledges the difficulty and relatively temporary benefit of widening roadways. Physical and aesthetic constraints make roadway widening within the Primary Corridor very difficult and expensive, particularly within the urban core of Honolulu from Middle Street to Waialae-Kahala. Given the difficulty of adding lanes, future transportation improvements within the urban core are principally focused on transporting more people within the same roadway space as provided at present.

The Year 2025 No-Build, TSM, and Refined LPA Alternative traffic volumes all utilize the same land use and background highway network assumptions, which are based on the OMPO TOP 2025 regional transportation plan. The primary difference between the Alternatives is the configuration and operation of the transit network. The Primary Corridor has two sub-corridors: the regional sub-corridor along H-1 Freeway between Kapolei and Middle Street, and the In-Town sub-corridor, located between Middle Street and University Avenue/Kapahulu Avenue. The primary impact of the Refined LPA assessed for regional highways is the consequence of implementing the contra-flow zipper lane during the P.M. peak period in addition to the existing A.M. peak period operation.

Improvements within the urban core with the TSM and Refined LPA Alternatives focus on converting general-purpose traffic lanes to semi-exclusive and exclusive transit lanes. Doing so improves person carrying capacity, thereby providing an alternative to the automobile for enhanced mobility within the urban core. At the same time, the semi-exclusive and exclusive transit lanes reduce the roadway capacity on streets where they are implemented. The In-Town sub-corridor analysis evaluates the impacts of implementing these transit priority measures on the street system within the urban core of Honolulu.

4.4.1 Regional Roadway Impacts

Limited access freeways and high-capacity arterial roadways provide much of the regional roadway mobility. The No-Build and TSM Alternatives would utilize only the A.M. zipper system that exists today. The Refined LPA would provide higher capacity levels for transit and high-occupancy autos through the use of the existing A.M. and proposed P.M. zipper lane. The P.M. zipper lane would provide the same type of benefit for Ewa-bound peak period traffic that the A.M. zipper lane provides for Koko Head-bound peak period traffic today. The BRT will also provide regional transit priority through the use of an express ramp at Luapele Drive directly into and out of the zipper lane. Priority treatments at other ramps for BRT buses are also included.

1) Freeway Operations with Zipper Lane Deployed

The OMPO long-range regional transportation plan assumes that the H-1 Freeway is widened by one lane in each direction between Halawa Interchange and Waiawa Interchange. This will permit displacement of two Koko Head-bound lanes to implement the Ewa-bound zipper lane during the P.M. peak period. This is comparable to the way the zipper lane is currently implemented during the A.M. peak period. The zipper lane is currently designated as a high-occupancy vehicle lane, requiring at least two or three persons per vehicle depending on the time of morning. Expanding the zipper lane operation to the P.M. peak period will benefit not only transit riders, but high-occupancy vehicle occupants as well. Today, the A.M. zipper lane carries at least 2,000 more people per hour than the highest utilized general-purpose lane.

The zipper lane system is an integral part of the Regional BRT component of the Refined LPA. It will allow buses to bypass much of the congestion that is forecasted for the general-purpose lanes on H-1 Freeway for the P.M. as well the A.M. peak periods.

Analyses were conducted to determine the impacts of the proposed zipper lane improvements. One of the issues considered is the impacts to freeway operations on H-1 Freeway just Koko Head of the Kaonohi Street

grade separation. This area, known as the Kalauao Screenline, is representative of freeway operations influenced by existing and proposed deployment of the zipper lane. It also provides a consistent segment of roadway on which vehicular operations can be evaluated and person carrying ability can be measured and compared between the Alternatives.

If an Ewa-bound zipper lane were implemented during the P.M. peak period traffic conditions, seven lanes would be provided for traffic in the Ewa-bound direction. The zipper lane would displace two Koko Head-bound lanes, leaving four lanes in the Koko Head-bound direction. The projected maximum A.M. peak period hourly volume in the Koko Head-bound direction would be 15,650 vph, while the maximum hourly volume in the Ewa-bound direction would be 8,360 vph. Table 4.4-1 summarizes the results that indicate that the general-purpose lanes of Koko Head-bound H-1 would be heavily loaded but acceptable (LOS E), and the Ewa-bound H-1 would also operate at LOS E during the future A.M. peak period. The zipper lane would provide a means for buses and HOVs to bypass the LOS F congestion in the Koko Head-bound direction.

TABLE 4.4-1
PROJECTED YEAR 2025 H-1 FREEWAY OPERATIONS AT KALAUAO SCREENLINE WITH REFINED LPA

	A.M. Peak Hour			P.M. Peak Hour		
	Lanes	Volume (vph)	LOS	Lanes	Volume (vph)	LOS
Koko Head-Bound	7	15,650	E		8,940	E
Ewa-Bound		8,360	E	7	14,700	E

Source: Parsons Brinckerhoff, Inc., June 2002.
Note: vph = vehicles per hour, LOS = level of service.

The projected maximum P.M. peak period hourly volume in the Ewa-bound direction would be 14,700 vph, while the maximum hourly volume in the Koko Head-bound direction would be 8,940 vph. Analysis results summarized in Table 4.4-1 show that both directions of H-1 Freeway would operate at an acceptable LOS E during the P.M. peak period. The zipper lane would still allow buses and HOVs to travel at a better LOS than the Ewa-bound general-purpose lanes on H-1. The Koko Head-bound direction would operate at LOS E with four general-purpose lanes.

2) Person Throughput on H-1 Freeway

More frequent service combined with proposed zipper lane and ramp enhancements will result in greater use of the A.M. zipper lane by buses in the Refined LPA. As a result, the Refined LPA is projected to carry more people through the Kalauao Screenline in the Koko Head-bound direction than the other Alternatives.

During the P.M. peak period, the added zipper lane operation in the Ewa-bound direction coupled with more frequent service and ramp enhancements for the Refined LPA will result in significant increases in person throughput (i.e. number of people passing across the screenline). Direct benefits would accrue not only to buses, but all vehicles with multiple occupants. Additionally, provision of the P.M. zipper lane would draw multiple occupant traffic out of the HOV and general-purpose lanes, providing indirect benefits to other motorists as well.

Table 4.4-2 compares the person throughput in the peak direction between the No-Build, TSM, and Refined LPA Alternatives. As shown, the Refined LPA will provide more person throughput capability on H-1 Freeway, especially during the P.M. peak period due to the proposed P.M. zipper lane. Transit passenger carrying capacity will also be increased because of more frequent service and the ability for buses to exit and enter the zipper lane at key locations along the corridor.

TABLE 4.4-2
PROJECTED YEAR 2025 COMPARISON OF H-1 FREEWAY PERSON THROUGHPUT AT THE KALAUAO SCREENLINE

Type of Lane(s)	A.M. Peak Hour			P.M. Peak Hour		
	No-Build	TSM	Refined LPA	No-Build	TSM	Refined LPA
Zipper	6,755	7,710	9,675	N.A.	N.A.	6,725
HOV	4,405	4,300	3,800	5,060	5,295	3,800
General Purpose	12,710	12,650	12,650	10,140	10,120	10,120
Total	23,870	24,660	26,125	15,180	15,415	20,645

Source: Parsons Brinckerhoff, Inc., June 2002.
Note: Numbers are persons per hour.

3) Summary

The Refined LPA will not only benefit transit riders by giving them an uncongested route to-and-from the urban core, but will benefit peak period traffic operations on the regional roadway system by reducing the number of autos using it. The benefits would accrue to all traffic on the freeway by shortening the length of time the freeway is congested.

Additionally, expanding zipper lane operation to the P.M. peak period will benefit transit riders and carpool occupants with 2 or more riders by providing a less congested path through the heavily traveled H-1 Freeway corridor. Analysis determined that the contra-flow zipper lane could be implemented during the P.M. peak period, while maintaining acceptable traffic flow in the off-peak direction lanes on H-1.

4.4.2 In-Town Traffic Operations

The Oahu Trans 2K meetings identified community sentiment for an alternative approach to addressing traffic congestion on roadways within the urban core of Honolulu. Meeting attendees acknowledged that while there is an important role for roadways, building new or widening existing highways couldn't solve current traffic congestion because there is inadequate space for new for wider streets. This is especially true within the urban core of Honolulu. Even if space existed for widening within the urban core, this widening would be ineffective without the ability to widen regional facilities and improve the interfaces between the regional facilities and urban core roadways. The goal therefore is to identify a way to carry more people within the urban core without rebuilding the entire roadway system. Additionally, the Oahu Trans 2K process identified a desire that communities, particularly in the urban core, become more pedestrian friendly and less auto dependent.

Still, regionally accepted projections of future population and employment growth imply a need to improve the capacity to move people to and from and within the urban core of Honolulu. Within the urban core, roadway improvements have a role in improving this capacity, but roadway improvements alone fall short. Without major roadway widening or grade-separation of intersections, roadway capacities can only be marginally enhanced through efficiency programs such as intersection channelization and traffic signal coordination. Contra-flow operation (borrowing a lane of traffic from the opposing direction of travel) during peak periods is helpful in increasing capacities, but is expensive to maintain and can only be implemented under the right conditions.

Most of the roadways within the urban core of Honolulu have already been optimized as much as possible using these techniques. Any future capacity enhancements without roadway widening or grade-separations will have to come from a shift away from single occupant vehicles, to transit and other modes. This has already begun with the initiation of limited-stop transit service such as CityExpress! A and B and CountryExpress! C. These limited-stop transit services provide faster travel times due to the reduced number of stops along their routes and are, therefore, able to carry more people per hour. Even so, when roadways

become congested, the transit vehicles become trapped within the congestion along with other vehicles. The roadway capacity again becomes the constraint.

The In-Town BRT will take transit to the next level in terms of person carrying capacity. The CityExpress! limited-stop concept is expanded by expediting limited-stop transit vehicles through the traffic congestion via a combination of semi-exclusive and exclusive transit lanes. To do this without widening roadways, lanes within roadways will be converted from general-purpose traffic use to semi-exclusive or exclusive transit lanes. Because buses carry more people per vehicle than general-purpose autos, providing buses an expedited path along a roadway increases the person carrying capacity of a roadway.

While increasing the people-carrying capacity, the traffic impact of converting lanes is that it reduces the auto-carrying capacity of the roadways where semi-exclusive or exclusive lanes have replaced general-purpose lanes. Screenline analysis, using volume/capacity (v/c) ratios, is used to address the corridor impacts of this capacity reduction. A V/C ratio of 1.00 indicates that the corridor volume demand equals the summed capacity of the roadway links along the screenline. A screenline is an imaginary line through which all roadways within a corridor pass. A corridor V/C ratio greater than 1.00 indicates that the corridor demand is greater than the screenline capacity. These V/C ratios are often linked to an index called level of service (LOS). LOS ranges from LOS A to LOS F, with LOS A indicating free-flow traffic conditions and LOS F indicating congested traffic conditions. Because auto capacity within streets within the urban core of Honolulu is governed by intersection operations, intersection analyses were also performed to assess the impacts of the Refined LPA in relation to the No-Build and TSM Alternatives. The intersection analyses also use an LOS index to identify operational levels. Unlike the screenline analyses, the intersection LOS is based on average vehicle delay expressed as seconds per vehicle. Measures to mitigate these impacts are identified where feasible. The In-Town traffic operations are divided into four general areas for the purposes of this discussion: 1) Dillingham Boulevard Corridor, 2) Downtown Area, 3) Mid-Town Corridor, and 4) Waikiki Corridor.

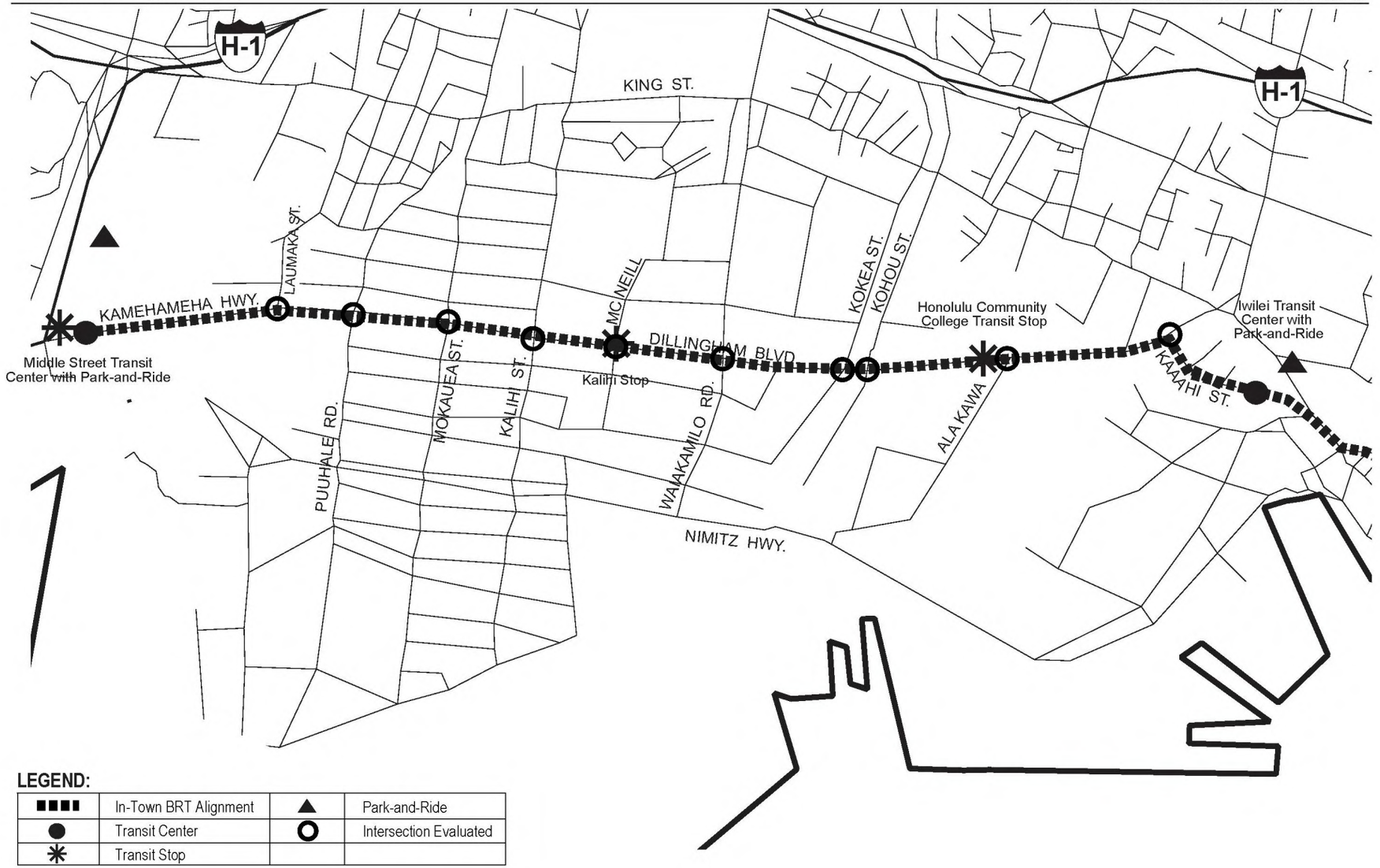
1) Dillingham Boulevard Corridor

a. Overview

Figure 4.4-1 illustrates the location of the Dillingham Boulevard corridor, which is from Middle Street to North King Street in an Ewa-Koko Head orientation. It is located parallel to and between North King Street and Nimitz Highway. The Ewa end of this corridor is actually named Kamehameha Highway between Middle Street and Puuhale Road, becoming Dillingham Boulevard Koko Head of Puuhale Road. For most of its length, Dillingham Boulevard currently has a 5-lane cross-section made up of 2 lanes in each direction and a painted median that accommodates exclusive left-turn lanes. On its Ewa end, it is connected to the H-1 Freeway Viaduct, Middle Street, and Nimitz Highway (under the viaduct) via ramping at the Keehi interchange. The Ewa end of Dillingham has a 7-lane cross-section (3 lanes Koko Head-bound, 3 lanes Ewa-bound and a median for exclusive left-turn lanes) with a transition to the 5-lane cross-section at Puuhale Road. The Koko Head-end of Dillingham Boulevard ends at North King Street, opposite Liliha Street. Major intersections are signalized and on-street parking is not allowed. The posted speed limit is 35 mph (25 mph near schools). Existing transit service on Dillingham Boulevard is provided by bus routes C (Country Express!), Route 3-Ruger/Navy, Route 52-Ala Moana Center/Wahiawa Circle Island, and Route 62-Ala Moana Center/Wahiawa Heights. The combined service on Dillingham Boulevard is approximately 10 to 11 buses per hour during the peak periods and 9 buses per hour during the midday time period.

In its current configuration it is able to accommodate existing A.M. and P.M. peak hour volumes although queuing may occur during the A.M. peak period on the Koko Head-bound ramps from H-1 and Nimitz Highway to Dillingham Boulevard.

During peak periods, it is projected that as many as 60 BRT buses per hour, per direction, will utilize Dillingham Boulevard. Along Dillingham Boulevard the BRT will carry 3,500 passengers during the A.M. peak hour.



LEGEND:

■■■■	In-Town BRT Alignment	▲	Park-and-Ride
●	Transit Center	○	Intersection Evaluated
✳	Transit Stop		

SOURCE:
Parsons Brinckerhoff Quade & Douglas, Inc., June 2002.

N Scale: 0 .50 1 mi

Dillingham Boulevard Corridor

Figure 4.4-1

Because Dillingham Boulevard is such a key link, transit will be given priority through the use of exclusive BRT lanes located in the middle of Dillingham Boulevard. Only BRT buses will use these lanes. To achieve this, two traffic lanes (one in each direction) out of the existing four traffic lanes on Dillingham Boulevard will be converted from auto to exclusive transit use. Median exclusive left-turn lanes will be maintained at most intersections.

In response to comments to the MIS/DEIS, a series of working group meetings comprised of business owners, property owners, community representatives, government agencies, and other stakeholders were held. This working group reviewed concerns expressed with the BRT Alternative contained in the MIS/DEIS and made suggestions to improve it.

Two key modifications to the BRT Alternative that came out of this process related to accessibility to properties along Dillingham Boulevard and traffic operation with a single traffic lane in each direction.

Accessibility to Properties Along Dillingham Boulevard

The BRT will be located in the middle of Dillingham Boulevard in exclusive lanes. Vehicles will be able to turn left at selected intersections and driveway locations. U-turns will also be allowed at most intersections. Most driveways will be limited to right-in/right-out traffic movements, a change from the current condition that allows left-turns to be made into the painted two-way left-turn median.

Large commercial vehicles would have difficulty using the U-turns at signalized intersections because of their turning radii. Solutions for large commercial vehicles to access properties from all directions and better traffic circulation parallel to Dillingham Boulevard were identified.

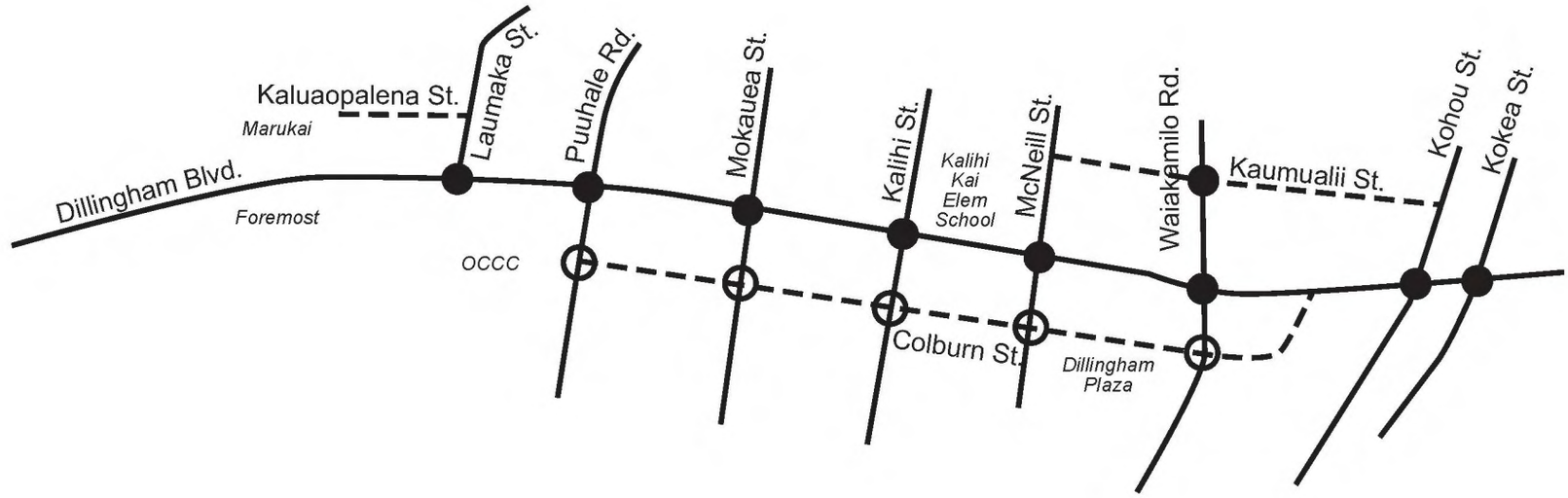
The following modifications to the BRT Alternative were made to address these issues:

- U-turns will be allowed at most signalized intersections, allowing vehicles the ability to access driveways regardless of their direction of travel.
- Parallel roadways, such as Colburn Street, Kaumualii Street, and Kaluaopalena Street, will be modified, where appropriate, to improve access and traffic circulation within the Dillingham Corridor. These roadways will enable larger commercial trucks to circulate when they are too large to execute a U-turn at a signalized intersection. To enable these parallel roadways to effectively serve this circulator function, it is also proposed to signalize intersections with major cross streets such as Waiakamilo Road, McNeill Street, and Mokauea Street. Parallel roadways within primarily residential areas will not be used for circulation purposes.
- In rare special cases where essential low volume access to driveways could not be accommodated through other means, access across the exclusive BRT lanes will be allowed.

Figure 4.4-2 illustrates alternate property access on Dillingham Boulevard.

Single Traffic Lane Operation on Dillingham Boulevard

A single lane for traffic has the potential to be blocked by local buses while loading or unloading passengers (some local bus service will remain on Dillingham Boulevard with these buses running in the curb lane, not in the exclusive transit lane), commercial vehicles stopped for loading and unloading, and vehicles slowing to make right turns. These obstructions could limit the ability for Dillingham Boulevard to effectively carry traffic. The following modifications to the BRT Alternative in the MIS/DEIS are reflected in the Refined LPA:



LEGEND:

- -	Alternative Access
●	Existing Traffic Signal
○	Proposed Traffic Signal

SOURCES:
City and County of Honolulu, July 2002; Parsons Brinckerhoff, July 2002.

N

Scale: 0 .25 .5 mi

Alternative Property Access on Dillingham Boulevard

Figure 4.4-2

- Selective widening of Dillingham Boulevard . One of the key changes to the BRT Alternative is the addition of an approximate 7-foot widening on the makai side of Dillingham Boulevard between Waiakamilo Road and Puuhale Road to provide two 18-foot traffic lanes. These wider lanes (one in each direction) would allow through traffic on Dillingham Boulevard to bypass vehicles turning right into driveways or streets and local buses stopping for passengers.

- Bus Turnouts. Between Waiakamilo Road and Kaaahi Street, it was the consensus of the working group not to widen Dillingham Boulevard in this section, but to provide bus turnouts (bus bays), so that local buses stopping to load and unload passengers will not block through traffic. Turnouts rather than widening will allow the existing Kamani trees that line Dillingham Boulevard to remain.

b. Year 2025 Traffic Volumes on Dillingham Boulevard

While the No-Build and TSM Alternatives do not propose any changes to the lane configurations on Dillingham Boulevard, the Refined LPA proposes the conversion of one traffic lane in each direction to exclusive transit lanes in each direction. This will leave one traffic lane in each direction, capable of carrying general-purpose traffic. This reallocation of lanes has raised concerns about the impacts to motorists on Dillingham Boulevard and other parallel streets and highways.

To better understand the intersection analyses of traffic impacts that follow, background with regard to the future traffic projected for Dillingham Boulevard is presented.

Existing traffic on Dillingham Boulevard during peak periods totals around 1,500 vehicles per hour (vph) in the peak direction. This traffic demand currently requires two traffic lanes in each direction on Dillingham Boulevard.

To analyze what is likely to happen when two lanes on Dillingham Boulevard are converted to exclusive BRT use requires looking at a screenline through the affected area. As discussed in the regional highway portion of this chapter, a screenline is an imaginary line along which traffic volumes on parallel roadways that cross it are summed. This provides an understanding of the total traffic demand through an area and identifies the distribution of that demand to the roadways that cross the screenline. Table 4.4-3 summarizes A.M. peak hour traffic volumes at the Kapalama screenline for existing conditions, projected Year 2025 conditions for the three Alternatives. The Kapalama screenline is located along the Kapalama Canal and is crossed by School Street, H-1 Freeway, Olomea/Halona Streets (H-1 frontage roads), North King Street, Dillingham Boulevard, and Nimitz Highway.

As shown in Table 4.4-3, the current Kapalama screenline is near capacity in the peak direction during the A.M. peak hour. Further, all future Alternatives result in peak direction A.M. peak hour travel demand that exceeds the capacity of the Kapalama screenline. This occurs even when including the capacity enhancements within the Nimitz Highway corridor assumed in the OMPO long-range regional transportation plan.

Table 4.4-3 also shows that the Refined LPA is projected to have a beneficial effect on the Kapalama screenline through a reduction in auto traffic by attracting more trips to transit. The Refined LPA will result in almost 3,000 fewer vehicle trips in the peak direction during the A.M. peak hour than the No-Build Alternative and almost 2,000 fewer vehicle trips than the TSM Alternative during the same period.

c. Person Throughput on Dillingham Boulevard

The previous analysis demonstrated that a single lane on Dillingham Boulevard is forecast to result in v/c ratios at or below those on adjacent roadways.

TABLE 4.4-3
COMPARISON OF PROJECTED SCREENLINE TRAFFIC VOLUMES
KAPALAMA SCREENLINE-A.M. PEAK HOUR-KOKO HEAD-BOUND

	2000 Existing		2025 No-Build		2025 TSM		2025 Refined LPA	
Roadway	**Volume**	**V/C**	**Volume**	**V/C**	**Volume**	**V/C**	**Volume**	**V/C**
School Street	1,285	0.92	1,400	1.00	1,400	1.00	1,400	1.00
H-1 Freeway	7,065	1.01	9,740	1.39	9,700	1.31	8,640	1.23
Olomea Street	965	0.96	1,000	1.00	1,000	1.00	1,000	1.00
North King St.	1,260	0.90	1,780	1.11	1,600	1.00	1,600	1.00
Dillingham Blvd.	1,335	0.96	1,780	1.11	1,600	1.00	900	1.00
Nimitz Highway	3,850	0.99	8,170	1.26	7,590	1.17	7,510	1.16
Screenline Total	**15,758**	**0.98**	**23,870**	**1.25**	**22,890**	**1.20**	**21,050**	**1.14**

Source: Parsons Brinckerhoff, June 2002.
Note: Volume is expressed as vehicles per hour (vph), V/C=volume/capacity ratio. It is anticipated that for all Alternatives, all roadways that make-up the Kapalama screenline will be at or above capacity. However, because of the reduction in auto travel with the Refined LPA, Dillingham Boulevard will be able to maintain a volume over capacity (V/C) ratio of 1.00 with one less lane than in the No-Build and TSM Alternatives, and still result in lower V/C ratios on Nimitz Highway and the H-1 Freeway.

Although the analysis also concluded that all roadways along the Kapalama screenline would be at or above capacity, the Dillingham Boulevard corridor is the only corridor that provides a protected facility for the transit mode via the exclusive BRT lanes.

This will enable Dillingham Boulevard to carry more people per hour with the Refined LPA than with the TSM or No-Build Alternatives. Table 4.4-4 summarizes the capacity in number of person trips per hour that could be accommodated within Dillingham Boulevard. This table is based on the Kapalama screenline volumes shown in Table 4.4-3 and the bus and BRT volumes based on the proposed headways for each Alternative.

As shown, the Refined LPA will be able to accommodate half the auto person trips per hour compared to the No-Build and TSM Alternatives. On the other hand, the Refined LPA will be able to serve 10 times the number of transit trips per hour than would the No-Build Alternative. Overall, the Refined LPA will have about three to four times the total person trip capacity in the Dillingham Boulevard corridor than the No-Build or TSM Alternatives.

The ability of the Refined LPA to achieve the amount of transit person capacity shown in Table 4.4-4 is dependent on the exclusive lanes located in the middle of Dillingham Boulevard. These lanes help the BRT vehicles to bypass congestion on Dillingham Boulevard, thereby enabling them to achieve higher transit frequencies.

d. Intersection Analyses

Selected intersections along Dillingham Boulevard were evaluated using methods documented in the 2000 Highway Capacity Manual, published by the Transportation Research Board, and the results are summarized in Table 4.3-5. The results of these analyses show that in the year 2025 most intersections along Dillingham Boulevard will be congested with demand exceeding capacity. In the No-Build, TSM, and Refined LPA Alternatives, most intersections are projected to operate at Level Of Service (LOS) F. Note that No-Build, TSM, and Refined LPA Alternative delays are similar, even if the Refined LPA has only half as many traffic lanes on Dillingham Boulevard than the No-Build or TSM Alternatives. This results from the reduction in traffic volume caused by a significant shift in mode of travel from auto to transit as discussed previously.

TABLE 4.4-4
ESTIMATED PERSON TRIP THROUGHPUT CAPACITY ON DILLINGHAM BOULEVARD
KAPALAMA SCREENLINE – A.M. PEAK HOUR – KOKO HEAD-BOUND

Mode	2025 No-Build	2025 TSM	2025 Refined LPA
Transit Persons/Hour	770	210	7,080
Auto Persons/Hour	2,120	1,920	1,060
Total Persons/Hour	2,890	2,130	8,140

Source: Parsons Brinckerhoff Inc., June 2002.
Note: All table entries in persons/hour. TSM Alternative uses other corridors more heavily for bus routing.
Average Auto Occupancy = 1.2 persons/auto, Average Bus Occupancy = 70 persons/bus.
Average BRT Occupancy = 100 persons/BRT.

The benefit of the exclusive transit lane is clearly shown by the transit LOS. This LOS focuses on the amount of delay projected for transit vehicles on Dillingham Boulevard. In the case of the No-Build and TSM Alternatives, this reflects the average delay projected for all through vehicles on Dillingham Boulevard. In the Refined LPA, transit priority is provided via exclusive BRT lanes, and this LOS refers to the average delay projected for BRT buses in the exclusive lanes. As shown in Table 4.4-5, the exclusive lane provides dramatic improvements in transit LOS over the No-Build and TSM Alternatives.

e. Summary

The configuration of the BRT Alternative originally proposed in the MIS/DEIS has been refined to be responsive to comments received on the MIS/DEIS and the SDEIS.

The BRT Alternative concept of converting two lanes of Dillingham Boulevard from general traffic use to exclusive transit use remains. The refinement is comprised of a 7-foot widening on the makai side (less than a lane width) for Dillingham Boulevard between Puuhale and Waiakamilo Roads to provide 18-foot wide traffic lanes instead of the originally proposed 14-foot lanes. This will allow through traffic on Dillingham Boulevard to bypass local buses, commercial vehicles, or right-turning vehicles as they load/unload or slow executing a right-turn. Between Waiakamilo Road and Kaaahi Street, bus turnouts will be provided for local buses instead of the 18-foot wide lanes. This will preserve the existing Kamani trees located in that segment of Dillingham Boulevard, while keeping local buses when loading and unloading passengers out of the through traffic flow.

A more formalized system of U-turns and parallel streets are also proposed to provide property access for landowners and businesses located adjacent to Dillingham Boulevard.

The Refined LPA is projected to result in a lower (less congested) screenline V/C ratio than the No-Build or TSM Alternative.

Even with one lane in each direction converted to exclusive transit use, intersection LOS for the Refined LPA will be equal to or better than for the No-Build and TSM Alternatives. This is possible primarily because the Refined LPA is projected to achieve sufficiently higher transit usage to decrease the A.M. peak hour, peak direction traffic at the Kapalama screenline by almost 3,000 vph. A similar decrease is forecast to occur during the P.M. peak period.

2) Downtown Area

The Regional and Dillingham Corridors work to conduct BRT vehicles to the Iwilei Transit Station on the edge of Downtown. From there, the In-Town BRT utilizes a short segment of N. King Street and then uses the existing Hotel Street Transit Mall.

TABLE 4.4-5
PROJECTED YEAR 2025 PEAK HOUR INTERSECTION LOS
DILLINGHAM BOULEVARD (DELAY IN SECONDS)

Intersection	Peak Time Period	No-Build				TSM				BRT			
		Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay
Laumaka St. and	A.M.	E	77.0	E	78.5	E	77.0	E	78.5	B	14.4	B	12.3
Dillingham Blvd	P.M.	F	121.8	F	125.8	F	121.8	F	125.8	F	94.0	A	7.7
Puuhale Rd. and	A.M.	D	52.3	D	51.0	D	52.3	D	51.0	C	31.6	B	11.3
Dillingham Blvd	P.M.	F	87.9	E	56.2	F	87.9	E	56.2	E	78.0	B	15.8
Mokauea St. and	A.M.	F	104.4	E	78.4	F	104.4	E	78.4	F	145.2	A	8.8
Dillingham Blvd	P.M.	F	123.9	F	137.5	F	123.9	F	137.5	F	172.1	C	25.5
Kalihi St. and	A.M.	F	359.0	F	288.9	F	359.0	F	288.9	F	338.5	C	34.4
Dillingham Blvd	P.M.	F	218.7	F	198.2	F	218.7	F	198.2	F	220.9	C	31.5
McNeill St. and	A.M.	F	98.4	F	102.8	F	98.4	F	102.8	F	85.6	B	18.2
Dillingham Blvd	P.M.	F	171.3	F	188.0	F	171.3	F	188.0	F	103.3	C	27
Waiakamilo Rd. and	A.M.	F	159.8	F	107.7	F	159.8	F	107.7	F	132.2	C	32
Dillingham Blvd	P.M.	F	174.7	F	188.1	F	174.7	F	188.1	F	116.7	C	29.5
Kohou St. and	A.M.	F	98.3	F	105.9	F	98.3	F	105.9	F	96.1	C	25
Dillingham Blvd	P.M.	F	108.5	F	117.6	F	108.5	F	117.6	F	91.9	C	24.5
Kokea St. and	A.M.	F	132.8	F	149.0	F	132.8	F	149.0	F	132.8	C	28.0
Dillingham Blvd	P.M.	F	143.7	F	153.6	F	143.7	F	153.6	F	138.1	C	25.0
Ala Kawa St. and	A.M.	F	114.5	F	125.5	F	114.5	F	125.5	F	100.0	B	19.2
Dillingham Blvd	P.M.	F	133.5	E	69.5	F	133.5	E	69.5	F	136.4	C	23.5
Kaaahi St and	A.M.	F*	-	F*	-	F*	-	F*	-	F*	-	C	20.0
Dillingham Blvd	P.M.	F*	-	F*	-	F*	-	F*	-	F*	-	C	25.0

Source: Parsons Brinckerhoff Inc., June 2002.
Note: *LOS F caused by downstream condition. Providing exclusive transit lanes along Dillingham Boulevard in the Refined LPA will result in much higher person trip throughput on Dillingham Boulevard.

Use of the Hotel Street Transit Mall by BRT vehicles will shift local transit vehicles from Hotel Street to parallel streets such as King Street and Beretania Street. Consolidation and reorganization of local and express bus routes would enable the parallel streets to accommodate the other transit vehicles.

The three In-Town BRT alignments then separate to serve their respective corridors. The Kakaako Mauka and Kakaako Makai BRT branches use the Bishop/Alakea couplet in mixed-flow mode between Hotel Street Transit Mall and Ala Moana Boulevard. The UH-Manoa Branch uses Richards Street between Hotel Street Transit Mall and South King Street.

3) Mid-Town Corridor

a. Overview

The Mid-Town Corridor covers the area from Downtown through Ala Moana. The In-Town BRT has three branches in this corridor, which are characterized by a combination of exclusive transit lanes, semi-exclusive transit lanes, and mixed-flow operation. Figure 4.4-3 shows the In-Town BRT alignments in the Mid-Town Corridor.

The Mid-Town Corridor, starts where the UH-Manoa Branch connects to South King Street at Richards Street, and the Kakaako Mauka and Kakaako Makai Branches intersect Nimitz Highway (Ala Moana Boulevard) at Bishop/Alakea Streets.

Along sections of Richards, South King, and Pensacola Streets, where the BRT will be operating in a curbside contra-flow lane, flashing warning signs with audible devices will be installed to alert pedestrians at crosswalks, and motorists at driveways that a BRT bus is approaching. In between driveways and crosswalks, edge treatments such as shrub plantings and bollards with chains will be installed to warn and discourage pedestrians from crossing at places other than crosswalks.

Traffic impacts within the Kakaako Mauka and Kakaako Makai areas are expected to be minimal. The BRT vehicles will be traveling on secondary streets such as Halekauwila, Pohukaina, and Auahi within Kakaako Mauka, and on Aloha Tower Drive and Ilalo Street within Kakaako Makai. The Kakaako Makai branch will also travel on a short segment of Ala Moana Boulevard, between Aloha Tower Drive and Forrest Avenue, but does so in mixed-traffic. BRT buses will have little effect on the overall traffic flow on these roadways.

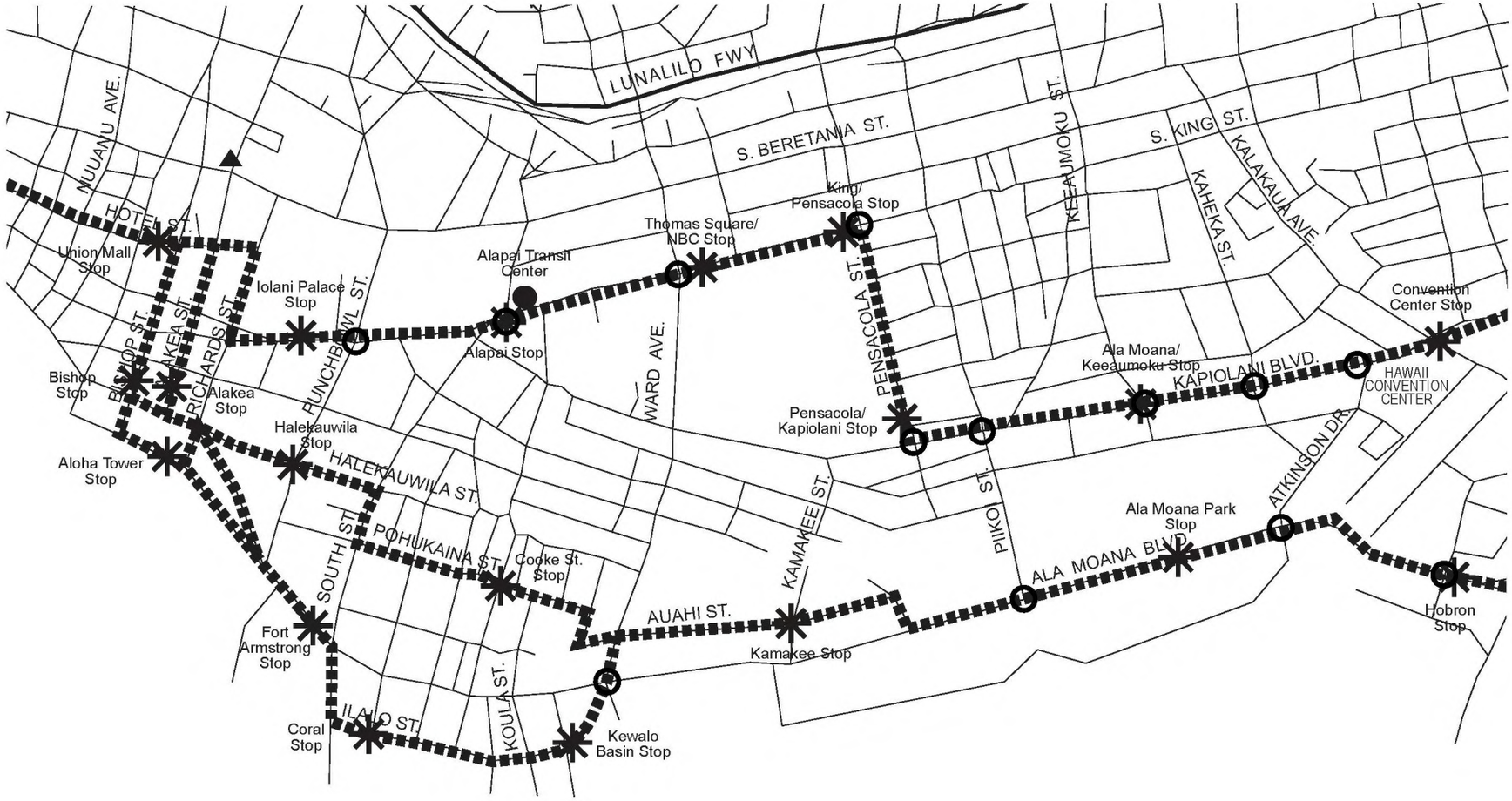
If transit priority is implemented within the traffic signal timing schemes, there could be additional delays to cross-street traffic. The primary transit priority technique would be to extend the green phase on the BRT route to allow a BRT vehicle to pass through the intersection without stopping. Signal priority is not the same as signal preemption used by emergency vehicles. Signal preemption changes the traffic signal as soon as it is safe to do so to accommodate an emergency vehicle. All other phases are preempted. Signal priority only modifies the signal timing within a narrow range to expedite transit vehicle flow along a corridor.

The following sections discuss the projected year 2025 traffic impacts of the three Alternatives where implementation of semi-exclusive and exclusive lanes would occur on major arterial segments within the Mid-Town Corridor. These intersections occur along South King Street and Kapiolani Boulevard between Punchbowl Street and Kalakaua Avenue and on Ala Moana Boulevard between Piikoi Street and Atkinson Drive.

b. Year 2025 Peak Hour Traffic Volumes Within Mid-Town Corridor

Table 4.4-6 summarizes the projected year 2025 outbound (Koko Head-bound) P.M. peak hour traffic volumes at the Ward Avenue screenline. The P.M. peak hour outbound volumes are the most constrained and are, therefore, the focus of this analysis.

The projected Ward Avenue screenline volumes are similar for all three Alternatives, with the Refined LPA being about 1,000 vehicles per hour (vph) less than the No-Build and about 600 vph less the TSM Alternative. Although the Refined LPA results in the lowest screenline traffic volume, it results in the highest volume over capacity (v/c) ratio. The ratio is higher for the Refined LPA, because the roadway capacity for traffic decreases due to the conversion of general-purpose traffic lanes to semi-exclusive and exclusive transit lanes. In this case, the decrease in traffic volume due to the mode shift to transit is not quite enough to offset the decrease in roadway capacity.



LEGEND:

■■■■	In-Town BRT Alignment	▲	Park-and-Ride
●	Transit Center	○	Intersection Evaluated
✱	Transit Stop		

SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

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Scale: 0 .125 .25 mi

Midtown Corridor

Figure 4.4-3

TABLE 4.4-6
COMPARISON OF SCREENLINE TRAFFIC VOLUMES AT WARD SCREENLINE-PM PEAK HOUR-KOKO HEAD-BOUND

Roadway	2000 Existing		2025 No-Build		2025 TSM		2025 Refined LPA	
	Volume	V/C	Volume	V/C	Volume	V/C	Volume	V/C
H-1 Freeway	7,545	1.00	7,750	1.03	7,950	1.05	7,950	1.05
Kinau Street	1,490	0.75	1,850	0.93	1,900	0.95	1,950	0.98
South King St.	3,335	0.69	4,690	0.98	4,215	0.96	3,500	0.97
Kapiolani Blvd.	1,825	0.67	2,630	0.97	2,600	0.96	2,605	0.96
Queen Street	300	0.60	900	0.90	900	0.90	950	0.95
Ala Moana Blvd.	2,740	0.91	2,940	0.98	2,920	0.97	2,895	0.97
Screenline Total	**17,235**	**0.84**	**20,760**	**0.99**	**20,485**	**0.99**	**19,850**	**1.00**

Source: Parsons Brinckerhoff Inc., June 2002.
Note: Volume is expressed as vehicles per hour (vph), V/C=volume/capacity ratio.

c. Person Throughput on South King Street and Kapiolani Boulevard

A goal of the Primary Corridor Transportation Project is to increase mobility by improving the flow of people not just vehicles. The Midtown Corridor roadways will be able to carry substantially more people than they would otherwise through the use of semi-exclusive and exclusive transit lanes.

South King Street is a one-way Koko Head-bound arterial with six traffic lanes available during peak periods. A semi-exclusive transit lane is proposed in the Koko Head-bound direction for BRTs, local buses, and vehicles making right turns into driveways and cross streets. An exclusive BRT lane traveling contra-flow to the prevailing Koko Head-bound traffic will serve the Ewa-bound BRT buses. Implementing these two transit priority lanes without widening South King Street will require converting two South King Street general-purpose lanes to transit use.

Similarly, once the alignment transitions from South King Street to Kapiolani Boulevard at Pensacola Street, two lanes will be converted from general-purpose to exclusive transit use on Kapiolani Boulevard, between Pensacola Street and Atkinson Drive. These lanes will be located in the middle of Kapiolani Boulevard and will be used by BRT buses exclusively. Because the two exclusive lanes on Kapiolani Boulevard will have the greatest impact, it is the focus of this analysis. Table 4.4-7 summarizes the results of the person throughput analysis for Kapiolani Boulevard.

TABLE 4.4-7
PERSON TRIP THROUGHPUT CAPACITY ON KAPIOLANI BOULEVARD BETWEEN PENSACOLA STREET AND ATKINSON DRIVE
P.M. PEAK HOUR – KOKO HEAD-BOUND

Mode	2025 No-Build	2025 TSM	2025 Refined LPA
Transit Persons/Hour	1,120	1,290	2,690
Auto Persons/Hour	3,220	3,220	2,150
Total Persons/Hour	4,340	4,480	4,840

Source: Parsons Brinckerhoff Inc., June 2002.
Note: All table entries in persons/hour. TSM Alternative uses other corridors more heavily for bus routing.
Average Auto Occupancy = 1.2 persons/auto, Average Bus Occupancy = 70 persons/bus
Average BRT Occupancy = 100 persons/BRT

As shown in Table 4.4-7, the Refined LPA has the potential to carry 8-12 percent more persons per hour than possible with the TSM and No-Build Alternatives, respectively, in the peak direction during the P.M. peak hour. For all Alternatives, the general-purpose lanes will be at capacity. The exclusive transit lanes, however, will be well below their capacity. Within this segment, the exclusive BRT lanes are projected to carry 22 BRT buses per hour in the peak direction. The Refined LPA, therefore, will significantly increase the potential person carrying capacity of Kapiolani Boulevard without having to widen it.

d. South King Street

South King Street is the one-way Koko Head-bound half of the South King Street/South Beretania Street high-capacity couplet. The Refined LPA proposes to operate BRT buses in both Koko Head and Ewa-bound directions on South King Street. The Koko Head-bound direction will be in a semi-exclusive lane shared by BRT buses, local transit, and right-turning vehicles. The Ewa-bound exclusive contra-flow lane will be for BRTs only. Local buses will continue to utilize South Beretania Street in the Ewa-bound direction along with general-purpose traffic.

Table 4.4-8 summarizes the intersection and transit LOS along South King Street.

TABLE 4.4-8
PROJECTED YEAR 2025 INTERSECTION LOS –MID-TOWN CORRIDOR ON SOUTH KING STREET

Intersection	Peak Time Period	No-Build				TSM				Refined LPA			
		Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay
Punchbowl St.	A.M.	E	75.5	D	35.5	E	90.0	C	22.6	E	57.2	C	34.5
and South King St.	P.M.	D	46.1	C	34.0	D	57.9	B	18.3	D	44.8	C	31.0
Alapai St.	A.M.	B	16.3	B	15.8	B	17.3	B	11.7	D	40.8	C	24.4
and South King St.	P.M.	C	30.7	C	20.2	D	36.9	C	20.6	E	78.2	B	18.8
Ward Ave.	A.M.	B	17.9	B	18.4	B	18.3	B	13.2	C	23.2	B	13.1
and South King St.	P.M.	D	47.7	C	28.7	D	49.7	C	20.5	D	49.7	B	14.1
Pensacola St.	A.M.	C	24.4	C	27.0	C	24.4	C	23.5	C	33.2	B	19.4
and South King St.	P.M.	C	26.3	C	33.5	C	26.3	C	33.5	C	34.5	B	19.7

Source: Parsons Brinckerhoff Inc., June 2002.

Peak traffic orientation during the A.M. peak period will continue to be in the Ewa-bound (into Downtown) direction for this corridor. Since South King Street operates as a couplet with South Beretania Street, the peak direction traffic will be on South Beretania Street, leaving South King Street with relatively unconstrained intersection operations even in 2025, with the exception of Punchbowl Street. The South King Street/Punchbowl Street intersection is projected to be congested in 2025 due to the high traffic demand on Punchbowl Street. For the Alapai Street, Ward Avenue, and Pensacola Street intersections, the TSM and Refined LPA Alternatives are projected to be operating at slightly lower, but still unconstrained LOS compared to the No-Build Alternative due to the reduction in general-purpose lanes (one for the TSM and two for the Refined LPA). Providing a semi-exclusive (Koko Head-bound) and an exclusive (Ewa-bound) transit lane for the BRT will allow the BRT to operate better than general purpose lanes along South King Street. The transit LOS is based on the delay experienced by the transit vehicles at the intersections summarized in Table 4.4-8.

Peak traffic during the P.M. peak period in 2025 will continue to be Koko Head-bound along South King Street. Similar to the Dillingham Corridor, there is projected to be a reduction of traffic volume at the Ward Avenue screenline due to the diversion of some auto drivers to transit. This diversion will enable the Refined

LPA to perform at comparable intersection LOS to the No-Build and TSM Alternatives, even with the conversion of two general-purpose lanes; one to semi-exclusive transit use and one to exclusive transit use.

e. Kapiolani Boulevard

A key feature of Kapiolani Boulevard today is the contra-flow lane operated in the peak direction during peak traffic periods. The contra-flow lane coning operation provides four traffic lanes in the peak direction and two traffic lanes in the off-peak direction. The No-Build and TSM Alternatives would maintain this configuration, although the TSM Alternative would allocate one peak direction lane for semi-exclusive transit operation (buses and right-turning vehicles). During contra-flow operation, left turns from the off-peak direction of Kapiolani Boulevard are prohibited, forcing off-peak direction left turns to make circuitous jug handle movements using streets parallel to Kapiolani Boulevard.

The Refined LPA will convert two general-purpose traffic lanes to exclusive transit lanes in the middle of Kapiolani Boulevard generally between Pensacola Street and Atkinson Drive, leaving two traffic lanes in each direction regardless of the time period. Contra-flow coning will continue Koko Head of Atkinson Drive, but will be discontinued between Atkinson Drive and South Street. Exclusive left-turn traffic lanes on Kapiolani Boulevard are proposed in the Refined LPA at the Pensacola Street, Piikoi Street, and Kaheka/ Mahukona Street intersections. These will operate throughout the day.

Table 4.4-9 summarizes the projected intersection level of service along Kapiolani Boulevard.

TABLE 4.4-9
PROJECTED YEAR 2025 INTERSECTION LOS – MID-TOWN CORRIDOR ON KAPIOLANI BOULEVARD

Intersection	Peak Time Period	No-Build				TSM				Refined LPA			
		Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay
Pensacola St.	A.M.	C	24.7	B	12.4	D	36.6	A	9.7	E	56.0	B	15.5
Kapiolani Blvd.	P.M.	C	25.8	B	13.4	C	27.3	A	9.8	D	47.6	B	16.4
Piikoi St. and	A.M.	C	29.7	B	11.4	D	46.5	A	7.8	E	56.7	B	11.7
Kapiolani Blvd.	P.M.	C	30.5	C	35.0	C	34.5	B	11.8	E	57.4	C	27.0
Keeaumoku St. and	A.M.	C	23.8	B	16.5	D	37.5	B	13.3	E	77.5	A	5.3
Kapiolani Blvd.	P.M.	C	33.6	C	30.9	C	40.0	B	20.3	D	44.4	B	19.5
Atkinson Dr. and	A.M.	C	26.4	C	25.1	D	35.2	C	20.4	D	42.4	B	17.3
Kapiolani Blvd.	P.M.	F*	-	F*	-	F*	-	B	14.7	F*	-	B	13.0

Source: Parsons Brinckerhoff Inc., June 2002.
Note: *LOS F caused by downstream condition

Both the No-Build and TSM Alternatives are proposed to retain the current contra-flow coning operation on Kapiolani Boulevard. Although this operation inconveniences drivers by restricting left turns from Kapiolani Boulevard in the off-peak direction, it does have the advantage of providing four lanes of travel in the peak direction. It also has the advantage of providing at least two through lanes unhindered by the friction of turning movements (the curb lane and the coned lane handle the turning traffic). Under the projected Year 2025 peak hour traffic volumes, Kapiolani Boulevard intersections are projected to operate acceptably with the exception of the Kapiolani Boulevard/Atkinson Drive intersection during the P.M. peak hour. This intersection is expected to be impacted by congestion at the downstream Kapiolani Boulevard/Kalakaua Avenue intersection. Because this delay is caused by the downstream intersection, delay is difficult to predict and no value is provided.

The Refined LPA is projected to have lower intersection LOS in 2025 compared to the No-Build and TSM Alternatives, mainly due to the two fewer lanes available to carry traffic in the peak direction. It is projected that Kapiolani Boulevard will operate about two LOS levels lower than the No-Build or TSM Alternative, but will still be operating acceptably for urban peak period conditions. As in the No-Build and TSM Alternatives, the Kapiolani Boulevard/Atkinson Drive intersection is projected to be affected by the congestion at the downstream Kapiolani Boulevard/Kalakaua Avenue intersection.

Providing exclusive transit lanes on Kapiolani Boulevard will allow the BRT to operate with less constraints through this corridor. This is especially helpful where traffic congestion is projected. The exclusive lanes allow the BRT to bypass the traffic queues caused by the congestion.

f. Ala Moana Boulevard

During both A.M. and P.M. peak periods in 2025, the Ala Moana Boulevard/Atkinson Drive intersection is projected to be congested for all Alternatives. Especially during the P.M. peak period, congestion at the Atkinson Drive intersection is expected to affect the upstream Ala Moana Boulevard/Piikoi Street intersection. Given the physical constraints of Ala Moana Center on the mauka side and Ala Moana Park on the makai side of Ala Moana Boulevard, roadway widening is not an option for this roadway segment. As a result, this segment is projected to be a traffic bottleneck in the long-range future regardless of the alternative implemented (See Table 4.4-10).

TABLE 4.4-10
PROJECTED YEAR 2025 INTERSECTION LOS –MID-TOWN CORRIDOR ON ALA MOANA BOULEVARD

Intersection	Peak Time Period	No-Build				TSM				Refined LPA			
		Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay
Piikoi St. and	A.M.	D	58.9	D	48.9	D	58.9	D	48.9	E	79.8	C	28.4
Ala Moana Blvd	P.M.	F*	-	F*	-	F*	-	F*	-	F*	-	C	29.6
Atkinson Dr. and	A.M.	F	91.7	E	63.5	F	91.7	E	63.5	F	130.5	C	27.2
Ala Moana Blvd	P.M.	F	82.5	E	66.7	F	82.5	E	66.7	F	239.5	C	31.5

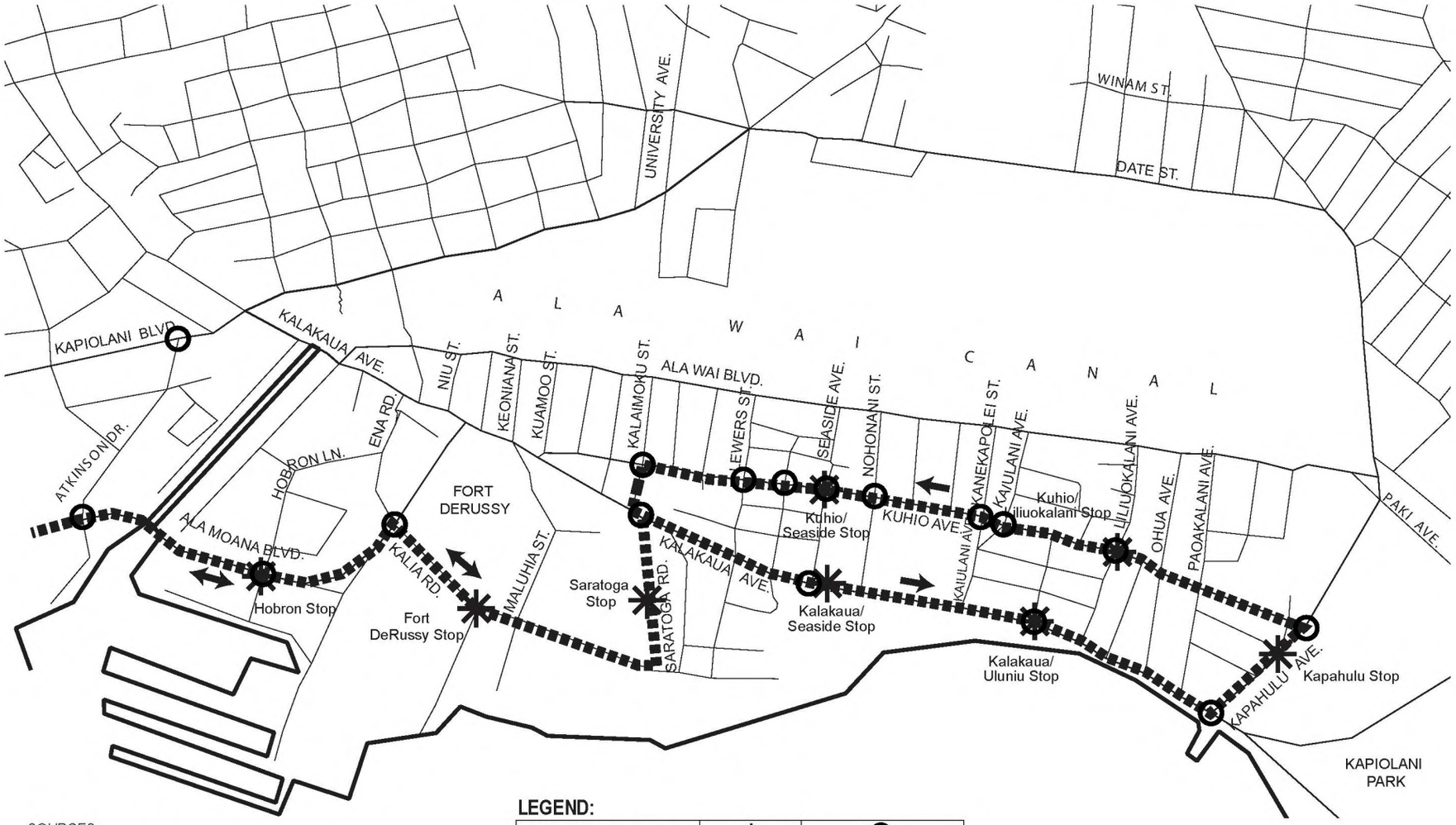
Source: Parsons Brinckerhoff Inc., 2002.
Note: * LOS F caused by downstream congestion

Given this finding, the Refined LPA will clearly provide greater mobility for more people through this area. While traffic will be significantly delayed in all Alternatives, only the Refined LPA with its semi-exclusive lane Koko Head-bound and exclusive lane Ewa-bound will allow BRT vehicles, local buses, and tour buses to bypass the congestion and continue to provide service for their patrons. The No-Build and TSM Alternatives will provide no real advantage to the public or private buses, subjecting both to the same delays as other traffic in this bottleneck location.

3) Waikiki Corridor

a. Overview

The Waikiki Corridor is located between the Ala Wai Canal (at Ala Moana Boulevard) on the Ewa end to Kapahulu Avenue on the Koko Head end. Figure 4.4-4 shows the Waikiki Corridor.



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

LEGEND:

■■■■■■■	✳	O
Kakaako /Waikiki Branches	Transit Stop	Intersection Evaluated

N

Scale: 0 .125 .25 mi

Waikiki Corridor

Figure 4.4-4

b. Ala Moana Boulevard

Ala Moana Boulevard, between Atkinson Drive and Kalakaua Avenue, experiences periods of congestion even today. To remedy this condition, the Refined LPA proposes to widen a section of Ala Moana Boulevard between the Ala Wai Canal and Kalia Road by 5-10 feet by reducing the width of the raised median, along with narrowing the existing traffic lanes to provide an additional lane in both Ewa-bound and Koko Head-bound directions.

In the Koko Head-bound direction, a semi-exclusive lane is proposed to be added to the existing three general-purpose lanes. BRT vehicles, local buses, tour buses and trolleys, and vehicles making right-turns will be allowed into this lane. It will begin just Ewa of Holomoana Street and continue along the curb to Kalia Road. Transit vehicles will be given an advanced green at the Ala Moana Boulevard /Atkinson Drive signal to allow them to reach this lane without competing with traffic in the general-purpose lanes between Atkinson Drive and Holomoana Street. This configuration will provide three lanes dedicated to through traffic movement at Hobron Lane plus a left-turn lane, and a semi-exclusive lane serving transit vehicles and right-turning traffic. The semi-exclusive lane will continue to Kalia Road, where it becomes a right-turn-only lane into Kalia Road. The three general-purpose lanes on Koko Head-bound Ala Moana Boulevard will extend to Kalia Road intersection where the outside lane will also become a right-turn only lane. The net effect in the Koko Head-bound direction will be to create a double right-turn lane from Ala Moana Boulevard to Koko Head-bound Kalia Road.

In the Ewa-bound direction, the semi-exclusive lane will begin at the Kalia Road intersection. It will continue to Hobron Lane, where it will transition from a curbside lane to a median lane. An advanced green signal will allow the BRT and other transit vehicles to transition to an exclusive median lane without conflict from other through traffic on Ala Moana Boulevard. This lane will continue to Atkinson Drive, where it will continue as an exclusive transit lane, available only to BRT vehicles and private buses. Also, to reduce conflicts at Atkinson Drive, left turns into Ala Moana Park will be prohibited. Motorists will be able to use the Ewa entrance to Ala Moana Park. The three general-purpose lanes will be configured as two through Ewa-bound lanes and one exclusive right-turn lane.

Table 4.4-11 summarizes projected 2025 traffic conditions for this segment of roadway.

TABLE 4.4-11
PROJECTED YEAR 2025 INTERSECTION LOS – WAIKIKI CORRIDOR ON ALA MOANA BOULEVARD

Intersection	Peak Time Period	No-Build				TSM				Refined LPA			
		Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay
Atkinson Drive	A.M.	F	91.7	E	63.5	F	91.7	E	63.5	F	130.5	C	27.2
And Ala Moana Blvd.	P.M.	F	82.5	E	66.7	F	82.5	E	66.7	F	239.5	C	31.5
Hobron Lane	A.M.	F	228.4	F	278.4	F	228.4	F	278.4	E	31.2	C	10.9
And Ala Moana Blvd.	P.M.	F	101.7	F	63.8	F	101.7	F	63.8	E	41.7	C	19.9
Kalia Road	A.M.	F	116.9	F	95.3	F	116.9	F	95.3	F	93.2	D	60.9
And Ala Moana Blvd.	P.M.	F	314.9	F	196.2	F	314.9	F	196.2	F	141.7	D	69.9

Source: Parsons Brinckerhoff Inc., June 2002.

The most constrained conditions are projected to occur at the Ala Moana Boulevard/Hobron Lane intersection. This intersection currently accommodates the through traffic on Ala Moana Boulevard and a significant level of turning traffic to-and-from Hobron Lane. Hobron Lane serves the Renaissance Ilikai Hotel,

the Hawaii Waikiki Prince Hotel, and the Ala Wai Boat Harbor on the makai side and numerous condominiums and hotels on the mauka side. This intersection currently experiences and is projected to experience periods of traffic congestion. Because of the added lanes for BRTs, other transit, and right-turning vehicles, the Refined LPA is projected to provide the best LOS. Its LOS E is still considered congested, but is much better than the LOS F projected in the No-Build and TSM Alternatives. More importantly, the Refined LPA will provide a less congested path for both public and private transit buses through this historically congested corridor.

Recent plans for a new hotel tower within the Hilton Hawaiian Village propose a new signalized intersection along Ala Moana Boulevard located at the existing Dewey Lane. Dewey Lane is located between the Renaissance Ilikai Hotel and the Hilton Hawaiian Village and is currently restricted to right-in/right-out traffic movements. The Draft Environmental Impact Statement (DEIS) Waikikian Development Plan, July 2001, documents proposals to modify this intersection as a full-movement, signalized intersection. The DEIS indicates that the Dewey Lane intersection would operate acceptably during the peak hour time periods.

c. Kalia Road

Kalia Road is currently configured with 5 traffic lanes (2 Koko Head-bound, 2 Ewa-bound, 1 median left-turn lane) between Ala Moana Boulevard and Maluhia Road (Hale Koa Hotel and Fort DeRussy Entrances). Koko Head of Maluhia Road, Kalia Road is a two-lane roadway with one lane in each direction and left-turn lanes provided at key intersections. The Refined LPA proposes to widen Kalia Road by one lane in each direction, with these lanes being designated as semi-exclusive lanes. BRT, local buses, private buses, and autos turning right into driveways on Kalia Road will be able to use these lanes.

To provide an exclusive lane for Ewa-bound BRT buses at Ala Moana Boulevard, the existing three general-purpose Ewa-bound lanes on Kalia Road (1 exclusive left, 1 left/through, and 1 exclusive right) would be reallocated as 2 general-purpose lanes (1 exclusive left, 1 left/through/right) and the exclusive transit lane.

Because of the new lanes proposed for Kalia Road, traffic operations are projected to be better in 2025 with the Refined LPA compared to the No-Build or TSM Alternatives that would only have two lanes on Kalia Road, Koko Head of Maluhia Road. Because the future bus operations plan proposes to turn-back some of the local bus routes in the Fort DeRussy area, the proposed semi-exclusive transit lanes will be very helpful. The transit routes will be turned-back to decrease the number of local buses circulating on Kuhio Avenue.

d. Saratoga Road

Kalia Road currently transitions from a two-way street to an Ewa-bound one-way street at Saratoga Road. The existing Saratoga/Kalia intersection is STOP-sign controlled. The future configuration of this intersection depends on final plans for Outrigger Hotel's redevelopment. Outrigger plans to redevelop an area between Kalakaua Avenue and Kalia Road and along Lewers Street and Beachwalk. As part of those plans, a new hotel tower is proposed between Beachwalk and Saratoga Road with its lobby entrance on Saratoga Road. Preliminary plans show two driveways for the lobby entrance located on Saratoga Road, close to the Kalia Road/Saratoga Road intersection. The BRT will turn from Kalia Road to Saratoga Road, maintaining a through and semi-exclusive lane in both directions. How Outrigger proposes to configure this intersection as part of the redevelopment could have an effect on the operation of the BRT and other traffic. The Outrigger's project is still in the planning phase at this time, and Outrigger continues to work with the City to arrive at a configuration that would be appropriate for the hotel and BRT operations.

Projected BRT and local bus volumes combined are estimated to total 60 transit vehicles/hour. This is a small fraction of the traffic volume that currently uses this intersection. It is believed that this volume can be accommodated by any reasonable intersection developed in conjunction with the Outrigger's redevelopment plan.

At Kalakaua Avenue, a new lane will be added in the mauka direction to allow an additional right turn movement onto Kalakaua Ave.

e. Kalakaua Avenue

Kalakaua Avenue will be used as the Koko Head-bound segment of the counter-clockwise BRT Loop within Waikiki. The No-Build and TSM Alternatives would not have buses operating on Kalakaua Avenue between Kuhio Avenue and Kapahulu Avenue.

On Kalakaua Avenue in the Refined LPA, three through lanes and a semi-exclusive lane are proposed heading in the Koko Head direction until Kaiulani Street where the mauka lane will be terminated. At Uluniu Avenue, the BRT will switch to a mixed-flow operation to provide 3-through lanes, and the BRT will transition from the makai lane to the mauka lane to make a left turn onto Kapahulu Avenue. On Kapahulu Avenue, the BRT will operate in mixed traffic.

Traffic within Waikiki along Kalakaua Avenue is extremely variable, depending on special events such as festivals, conventions, wedding receptions and others. Since these special events do not generally occur during peak commuting time periods, the analysis in this FEIS focuses on recurring conditions during the peak commuting time periods. That is when the BRT will be running at maximum frequency. During periods of back-up in the right lane, BRT vehicles will be able to go around the congestion by using the adjacent lane. Additionally, during special events such as parades, the BRT will be re-routed off of Kalakaua Avenue to alternate streets.

As shown in Table 4.4-12, there is little impact projected in 2025 from the BRT on Kalakaua Avenue.

TABLE 4.4-12
PROJECTED YEAR 2025 INTERSECTION LOS – WAIKIKI CORRIDOR ON KALAKAUA AVENUE

Intersection	Peak Time Period	No-Build				TSM				Refined LPA			
		Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay
Saratoga Road	A.M.	D	62.7	**	**	D	62.7	**	**	D	65.5	C	27.2
and Kalakaua Ave.	P.M.	E	78.5	**	**	E	78.5	**	**	E	79.5	C	31.5
Seaside Avenue	A.M.	B	25.4	**	**	B	25.4	**	**	B	25.9	B	25.9
and Kalakaua Ave.	P.M.	C	35.8	**	**	C	35.8	**	**	C	41.7	C	39.9
Uluniu Street	A.M.	B	25.9	**	**	B	25.9	**	**	B	30.2	B	25.9
and Kalakaua Ave.	P.M.	C	35.9	**	**	C	35.9	**	**	C	35.7	C	29.9

Source: Parsons Brinckerhoff Inc., June 2002.
Note: ** transit on Kuhio Avenue only.

f. Kuhio Avenue

Kuhio Avenue is currently a four-lane collector roadway with two lanes in each direction. In addition, left-turn lanes are located within a painted median.

The Waikiki Livable Communities project is an effort currently underway aimed at identifying improvements within Waikiki that can make it an even more pleasant environment in which to live, work, and visit. One of the concepts that has emerged from the Livable Waikiki effort is to create wide pedestrian promenades on both sides of Kuhio Avenue. To accomplish this, the existing sidewalks would be widened into Kuhio Avenue, the existing roadway would be narrowed, and the traffic lanes reduced. What would remain is enough

roadway width to provide two traffic lanes in one direction, one traffic lane in the other direction, and space for median left-turn lanes at selected locations. Turnouts would be provided for commercial truck and tour bus loading and for local bus stops.

In the Refined LPA Alternative, two lanes would be oriented in the Ewa-bound direction with the curb lane designated as a semi-exclusive lane for BRT, municipal bus, and tour bus vehicles. There would be a single Koko Head-bound lane for general-purpose traffic.

The No-Build and TSM Alternatives would be identical along Kuhio Avenue. Local buses and tour buses would travel in mixed-flow, as they do today. Two traffic lanes would be oriented in the Koko Head-bound direction and one lane would be oriented in the Ewa-bound direction.

In the Refined LPA, the lane configuration will be the reverse of the No-Build and TSM Alternatives, with two lanes being oriented in the Ewa-bound direction and one lane being oriented in the Koko Head-bound direction. One of the Ewa-bound lanes will be designated a semi-exclusive lane for use by BRT vehicles, local buses, private buses, and autos making right turns into cross streets or driveways. Immediately after Lewers Street the BRT will swap lanes with Ewa-bound through lanes to prepare it for a left-turn onto Kalaimoku Street. To achieve this without having BRT vehicles mix with the through traffic, the BRT will be given an advance green signal before the Ewa-bound through traffic, allowing the BRT to change into the makai lane unimpeded. The BRT will then follow Kalaimoku Street back to Saratoga Road.

Table 4.4-13 summarizes the projected 2025 LOS for Kuhio Avenue intersections. As shown, the majority of the intersections are projected to operate at LOS F for all of the Alternatives. This is largely a result of the significant increase in hotel rooms forecasted, especially in the International Marketplace area.

The Refined LPA will offer substantial benefit to BRT and other bus riders since they will have a dedicated lane that avoids the traffic congestion forecasted for Kuhio Avenue. The other Alternatives would not provide any transit priority and, therefore, transit riders would experience similar delays to the overall traffic on Kuhio Avenue.

4.5 PARKING IMPACTS

Parking impacts fall into three categories. The first category of impact is that related to parking at transit centers and park-and-rides. The second is on-street parking impacts, due to the designation of exclusive or semi-exclusive lanes for transit vehicles. The third category of impact pertains to off-street parking.

4.5.1 Transit Centers and Park-and-Ride Facilities

To intercept auto users and get them on transit, park-and-ride facilities are proposed in all of the alternatives. Many of the park-and-rides will occur at transit centers and give parkers transit connections to multiple destinations. From a regional perspective these park-and-rides will reduce VMT as well as parking and traffic impacts in the urban core. While there may be some localized impacts associated with these park-and-rides, sites have been selected to minimize the potential traffic impacts and increase opportunities to enhance neighborhoods.

Table 4.5-1 shows the number of parking spaces proposed at each transit center and park-and-ride facility in the No-Build, TSM and Refined LPA Alternatives. The number of spaces shown is based on projected usage from the travel demand models combined with a preliminary assessment of site constraints and surrounding neighborhood compatibility. Project-specific community planning and environmental assessments would be performed for each of these sites prior to their implementation. It is intended that a parking pricing schedule be developed to encourage parking outside of the urban core rather than parking within the core.

TABLE 4.4-13
PROJECTED YEAR 2025 PEAK HOUR INTERSECTION LOS –WAIKIKI CORRIDOR ON KUHIO AVENUE

Intersection	Peak Time Period	No-Build				TSM				Refined LPA			
		Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay	Auto LOS	Delay	Transit LOS	Delay
Kalaimoku St.	A.M.	F	136.7	F	124.4	F	137.0	F	124.4	F	409.4	E	56.1
And Kuhio Ave.	P.M.	F	145.5	F	152.8	F	146.0	F	152.8	F	336.8	E	78.3
Lewers St.	A.M.	F	339.5	F	277.4	F	340.0	F	277.4	F	520.5	C	20.7
And Kuhio Ave.	P.M.	F	317.9	F	371.4	F	318.0	F	371.4	F	496.2	D	43.6
Royal Hawaiian Ave.	A.M.	F	158.7	F	117.8	F	159.0	F	117.8	F	195.4	D	28.3
And Kuhio Ave.	P.M.	F	143.4	F	133.3	F	143.0	F	133.3	F	201.7	D	47.4
Seaside Ave.	A.M.	F	217.0	F	241.3	F	217.0	F	241.3	F	166.5	C	29.4
And Kuhio Ave.	P.M.	F	168.8	F	121.8	F	169.0	F	121.8	F	249.2	C	31.6
Kanekapolei St.	A.M.	F	245.5	F	305.6	F	245.5	F	305.6	F	92.6	C	25.2
And Kuhio Ave.	P.M.	F	140.5	F	89.7	F	140.5	F	89.7	F	60.7	B	18.9
Liliuokalani Ave	A.M.	F	212.5	F	249.8	F	213.0	F	249.8	C	31.2	B	10.9
And Kuhio Ave.	P.M.	F	126.1	F	135.8	F	126.0	F	135.8	D	41.7	B	19.9
Kapahulu Avenue	A.M.	C	20.3	B	17.9	C	20.3	B	17.9	B	19.1	B	18.4
And Kuhio Ave.	P.M.	E	79.4	F	121.3	E	79.4	F	121.3	E	67.1	B	12.6

Source: Parsons Brinckerhoff Inc., June 2002.

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TABLE 4.5-1
PROPOSED NEW PARKING STALLS AT TRANSIT CENTERS AND PARK-AND-RIDES

Proposed Transit Centers and Park-and-Ride Facilities	Number of New Parking Stalls		
	No-Build	TSM	Refined LPA
Aloha Stadium Park-and-Ride (upgrade part of existing parking)	500	500	1,000
Iwilei Transit Center	300	300	300
Kaneohe Transit Center	150	150	150
Kapolei Transit Center	0	400	470
North-South Road Park-and-Ride	300	500	600
Middle Street Transit Center	750	750	1,000
Waianae Transit Center	100	100	100
TOTAL	**2,100**	**2,700**	**3,620**

Source: Parsons Brinckerhoff, Inc., June 2002.
Note: Numbers represent total amount of parking spaces for each alternative.

Not all of the new spaces shown in Table 4.5-1 would be built as part of the PCTP, since some spaces are being planned as independent projects. These independent projects are shown as part of the No-Build Alternative. In addition to the 2,100 new park-and-ride spaces that would be constructed as part of independent projects, there would be 600 additional new spaces with the TSM Alternative and 1,520 additional new spaces with the Refined LPA.

4.5.2 On-Street Parking

Curbside parking spaces were counted as being affected if their expected use in the year 2025 will be affected in any way, either all day long or by limiting their use to off-peak hours.

Parking spaces are categorized by availability during peak and off-peak hours. "Unrestricted parking" spaces are defined as those currently available during peak and off-peak hours. There are no parking spaces that are available only during peak hours and not at off-peak hours. Therefore, unrestricted parking spaces represent those parking spaces that would be impacted during peak period transit operation.

"Restricted parking" spaces refer to all other types, namely spaces that currently have some time restriction on parking. Most such spaces are available only during off-peak hours. These spaces will therefore not be affected by peak-period transit operations, because their use is not allowed during the peak traffic hours. The definition of restricted parking also includes spaces that are available only partially during off-peak hours, such as those on Ala Moana Boulevard that are for use only on weekends, holidays, and overnight on weekdays.

The number of affected parking spaces was determined from City and County striping plans and/or independent field checks. Where curb parking spaces were not marked by parking meters and/or parking space stripings, the linear curbside distance available for parking (exclusive of driveways and other uses such as bus stops, loading zones, no parking zones, etc.) was measured and divided by 22 feet, a typical parking space length according to the current City and County's Traffic Standards Manual (DTS, July 1976).

1) No-Build Alternative

The No-Build Alternative would not have any impacts on existing parking spaces, because it does not propose any changes to current roadway uses.

2) TSM Alternative

The TSM Alternative would affect an estimated 166 unrestricted parking spaces that are currently available during peak and off-peak hours. This alternative would not affect any restricted parking spaces that are currently limited to off-peak use only.

Potential parking reductions would occur on King Street and Beretania Street. Transit vehicles would operate in semi-exclusive lanes on these streets, requiring that curbside lanes be restricted to use by transit vehicles or vehicles making right turns. The impact would occur along King Street between Middle Street and Kalakaua Avenue (139 spaces) and Beretania Street between Aala Park and South King Street (27 spaces). The 139 parking spaces on King Street consist of the segment from Middle Street to Richards Street, which would lose 109 spaces, Richards Street to Ward Avenue 24 spaces, and Ward Avenue to Kalakaua Avenue 30 spaces. These spaces (marked and unmarked) would require the elimination of parking spaces currently available during the morning peak hours (parking in these spaces is generally prohibited during the afternoon peak), while they would still be available during off-peak hours.

3) Refined LPA

IOS

The IOS will affect unrestricted parking spaces on Queen Street (5 marked spaces), Saratoga Road (5 marked spaces), and Kapahulu Avenue (12 marked spaces).

Middle Street to Iwilei Segment

The Middle Street to Downtown branch will affect 27 unrestricted spaces on Kaaahi Street.

Iwilei-Waikiki Branch

Under the Refined LPA, the alignment on Ala Moana Boulevard becomes semi-exclusive versus in mixed traffic in the IOS. Therefore, the makai side of Ala Moana Boulevard will lose 124 restricted spaces (unmarked), though these impacts will be limited to weekend, holiday, and nighttime uses, when they are currently available. The same impacts as for the IOS will occur on all other streets.

Kakaako Mauka Branch

Along the Kakaako Mauka Branch, 69 unrestricted and 66 restricted spaces will be affected on Halekauwila and Pohukaina Streets. These spaces are all marked.

UH-Manoa Branch

Along the UH-Manoa Branch, 199 unrestricted spaces and 343 restricted spaces will be affected. Of this amount, 20 unrestricted spaces on Richards Street between Hotel and King Streets will be lost. Kapiolani Boulevard will lose the most curb parking, totaling roughly 214 unmarked restricted parking spaces available now only at off-peak times. Of the 214 unmarked restricted parking spaces, about 48 unmarked spaces on the makai side of Kapiolani Boulevard between McCully Street and University Avenue will be affected, and

the remaining roughly 166 affected spaces on Kapiolani Boulevard occur along the stretch between Pensacola and McCully Streets. Other spaces affected by the UH-Manoa Branch will be along South King Street (43 unrestricted and roughly 98 restricted), Pensacola Street (80 unrestricted and 9 restricted), and University Avenue (56 unrestricted and 22 restricted).

4.5.3 Off-Street Parking

The discussion on displacements in Section 5.2 deals with off-street parking impacts. Table 5.2-2 identifies the properties that will loose parking spaces under the Refined LPA. These proposed parking impacts are the result of street widening.

4.5.4 Parking Mitigation

It is expected that an efficient transit system would encourage people to use transit rather than driving private vehicles. In fact, on the order of 7,000 people per day under the TSM Alternative and over 21,000 people per day under the Refined LPA are expected to be diverted out of their cars to use transit. Some of these former auto drivers would be able to give up their cars or park their cars at outlying park-and-ride facilities, thereby lessening the need for parking in the Primary Urban Center (PUC). The need for parking would decline regardless of whether the people who gave up their cars are residents and/or employees in the PUC. Thus, parking demand in the PUC is expected to decline in general under all Build alternatives, but especially along the transit spine in the Refined LPA. Moreover, the community planning process will be an integral part of the design phase to help mitigate any potential parking impacts to specific neighborhoods.

In areas where a large concentration of parking spaces will be affected, replacement parking in new off-street parking facilities will be considered, following community-based planning. For example, replacement parking could be provided in the neighborhood around University Avenue, where 78 on-street parking spaces will be lost, but this plan has not been decided with the community. At least initially, representatives of the McCully/Moiliili neighborhood who served on the Mid-Town/University working group chose not to recommend replacing this parking since it would result in the loss of land for other uses. More recently the issue of replacement parking was requested to be reconsidered in the final design phase.

Replacing the off-peak and weekend parking lost on Ala Moana Boulevard is not viable, so no replacement parking is proposed for that area. Other areas of concern will be addressed on a case by base basis during the project's final design phase.

4.6 LOADING ZONE IMPACTS

Conceptual engineering designs have taken into consideration the need to avoid impacts on as many loading zones as possible, especially in the Waikiki area. Potentially affected areas and the proposed mitigations are discussed in this Section.

As shown in Table 4.6-1, the linear distance designated as loading zones was measured along the proposed alignments. The number of zones that these distances represent is also included in the table. One continuous street segment that allows loading activity was counted as one loading zone; if the activity was allowed continuously along several blocks each block was counted as a separate zone.

The table also distinguishes the loading zones allowed during peak and off-peak hours, as opposed to those zones restricted to use only during off-peak hours.

Most loading zones are also restricted to use by commercial vehicles, which are primarily tour buses and freight vehicles with permits. Other vehicles that may stand briefly in such loading zones include taxicabs, armored cars, and special transit service vehicles.

TABLE 4.6-1
SUMMARY OF ESTIMATED LOADING ZONE IMPACTS

Alternative	Total Distance (Feet)	Peak And Off-Peak (Number Of Zones)		Off-Peak Only Loading (Number Of Zones)	
		Commercial Vehicles With Permit	Passenger Or Other Vehicles	Commercial Vehicles With Permit	Passenger Or Other Vehicles
No-Build	0	0	0	0	0
TSM	1,200	9	5	0	0
Refined LPA	725	16	8	2	0

Source: Parsons Brinckerhoff, Inc., June 2002.

4.6.1 No-Build Alternative

The No-Build Alternative would not have any impacts on existing loading zones, because that alternative does not propose any changes to existing roadway uses.

4.6.2 TSM Alternative

Under the TSM Alternative, a local street bus priority system would operate on North and South King Street and on South Beretania Street. In total, an estimated 1,200 feet of loading zones would be affected. Buses would operate on North King Street in semi-exclusive lanes, affecting both mauka and makai curbside loading zones during peak periods. On South King Street and South Beretania Street, where the bus would operate in a couplet, only the right curbside lane in the direction of travel would be affected during peak periods. The total impact of this alternative would be the equivalent of 13 loading zone spaces, of which 9 are peak and off-peak loading zones for commercial vehicles with permits.

4.6.3 Refined LPA

The loading zone impacts for the In-Town portion of the Refined LPA will be approximately 725 feet of curbside loading space. The Regional BRT will not result in any loading zone impacts. Impacts that will occur are those associated with the In-Town BRT, mostly in Downtown, plus on Kaaahi Street in Iwilei. The Refined LPA will not preclude continued use of any of the existing passenger or freight loading zones on either Kalakaua or Kuhio Avenues in Waikiki.

On Kaaahi Street, freight loading occurs along both sides of this currently dead end street. With the Refined LPA on-street loading between Dillingham Boulevard and Kaaahi Place will be prohibited, and these operations will have to be relocated either to side streets or to off-street parking/loading areas.

In the block of Alakea Street between King and Hotel Streets, passenger and freight loading takes place on the Ewa curbs at all hours of the day. This block is marked as “No Parking, Tow Away Zone” which allows commercial vehicles with permits to make brief stops for loading and unloading operations. During the P.M. peak period the BRT will operate in a semi-exclusive Ewa curb lane (BRT and left turning vehicles only) in this block, and stopping or loading will be prohibited.

The proposed BRT lane along Kalakaua Avenue has been revised since publication of the MIS/DEIS. The proposed curbside BRT lane will extend from Saratoga Road to Uluniu Avenue as a semi-exclusive lane, which will allow commercial passenger carriers and right turning vehicles to share the curbside lane with the BRT. Passenger and freight loading operations that use the existing pullouts on the makai curb will not be affected by the BRT. Koko Head of Uluniu, the BRT will operate in mixed traffic to Kapahulu Avenue where it turns left in the mauka direction.

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On Kalakaua Avenue, commercial freight carriers will be allowed to use the makai-side, semi-exclusive BRT curb lane during legal delivery hours (10 P.M. to 9 A.M.). The BRT will simply pass around a stopped loading truck by using the adjacent traffic lane. In the event that a freight truck blocks the BRT curb lane during other times, the BRT vehicle can simply go around the stopped vehicle in the adjacent lane. There will not be any noticeable impact to freight loading on Kalakaua Avenue with the Refined LPA.

On Kuhio Avenue, the BRT has been modified from an exclusive center lane as shown in the MIS/DEIS to operating in a semi-exclusive lane on the mauka curb. This lane will be shared with local buses, commercial passenger buses, and right-turning vehicles. Today freight loading is generally permitted along both sides of the street from 10 P.M. to 7:30 A.M. Commercial passenger loading is permitted all-day and night except between the hours of 3:30 to 5:30 P.M. With the Refined LPA, turnout bays will be provided along both sides of Kuhio Avenue to allow commercial freight vehicles, tour buses, taxis, and trolleys to load during the designated hours and still allow moving vehicles to pass these parked vehicles safely without encroaching on the semi-exclusive lane. Stricter enforcement of the loading zone hours of availability will be needed on Kuhio Avenue with the Refined LPA so that it works effectively. The benefits will be an enhanced pedestrian environment through widened sidewalks and added landscaping, as well as improved transit circulation.

Similarly, tour buses and trolleys will be able to continue to load/unload at their current locations on either side of both Kalakaua and Kuhio Avenues with the BRT.

An existing tour bus loading zone on Saratoga Road, mauka of its intersection with Kalia Road will be relocated under a redevelopment plan for Outrigger Hotels that has already been approved by the City Council. Therefore, the BRT stop proposed at this location would not displace the tour bus loading zone, and there will be no loading zone impacts on Saratoga Road.

4.6.4 Loading Zone Impacts Mitigation

As with parking impacts, community-based planning will be an integral part of the final design phase to address mitigation measures for loading zone impacts.

Along Kuhio Avenue, turnout bays will be provided which will permit passenger and freight loading to continue to occur along the mauka and makai curbs during the designated hours.

4.7 BICYCLING IMPACTS

This section describes the project's potential impacts to existing and currently proposed bicycle systems in the study area, as described in the Honolulu Bicycle Master Plan (April 1999).

The No-Build Alternative would not affect bicycle transportation because it would not affect existing streets in a manner to interfere with the safety and convenience of cyclists. Implementation of the Bicycle Master Plan would continue under all alternatives. All buses would have bike racks to accommodate intermodal transit. New bike parking racks will continue to be installed around the city.

The TSM Alternative, which includes a network of semi-exclusive bus and in-town bus priority lanes, would not affect bicycle usage because no existing bikeway would be displaced or modified.

One of the primary purposes of the Refined LPA is to enhance in-town mobility by restoring a balanced transportation system that includes measures that encourage transit, bicycle, and pedestrian modes. Therefore, the Refined LPA has been designed to provide concurrent systems enhancing transit, bicycle and pedestrian travel within the very limited space of the existing roadway rights-of-way. Cyclists have been accommodated along the entire length of the In-Town BRT system.

The general approach to enhancing bicycle travel under the BRT Alternative includes the following elements:

- BRT vehicles would be equipped with bike racks to facilitate intermodal transit. Bike parking facilities would be installed at transit centers, transit stops, and park-and-ride facilities.
- A separate bike lane will be provided, or in many areas, 14 to 18 feet wide curbside lanes for the joint use of bicycles and vehicles will be provided.
- Where a bike lane or 14 to 18 feet wide curbside lanes cannot be accommodated, cyclists will be allowed to share the transitway in curb-running sections. Many cities, including New York City, London, Toronto, Madison Wisconsin, Seattle and Portland Oregon, allow bicycles to use at least portions of their curb-running transitways.

In most cases, these measures will improve bicycle transportation over the existing conditions.

Coordination with cyclists will be conducted to further define the details of the bicycle mitigation program.

The In-Town BRT element of the Refined LPA could assist with implementation of planned bikeway facilities through coordination of right-of-way and/or use of travel lanes. Planned bikeway facilities that could be jointly developed include proposed facilities on Dillingham Boulevard, South King Street, Ala Moana Boulevard, Kalia Road, and Saratoga Road. Methods of incorporating these proposed bicycle facilities in the design will be addressed in the final design phase.

4.7.1 Impacts to Existing Bikeways and Cycling

Although most of the In-Town BRT alignment is not designated as a "bikeway", roadways along the alignment are used by cyclists to varying degrees because of the paucity of bikeway facilities. Figures 3.1-4A through 3.1-4C show existing bikeways in the study area that support cycling as a viable transportation mode and recreational activity. Bikeways recommended in the Honolulu Bicycle Master Plan are also shown.

A bikeway can be a bike route, lane or path. A bike route is a road that is designated for the shared use of bicycles and motor vehicles. Bike routes typically have wide shoulder lanes or relatively little traffic. A bike lane is a portion of a roadway designated by striping, signage or pavement markings for the preferential or exclusive use of bicycles. A bike path is a completely separated right-of-way designated for the exclusive or semi-exclusive use of bicycles. In urban areas, bike paths are normally paved, and located in parks or scenic areas.

Most of Honolulu's existing bikeways are not linked systematically, although the Pearl Harbor Bike Path is continuous between Waipahu and Aloha Stadium, and eventually is proposed for extension to Kapolei. Bikeways on Kalanianaole Highway also form a continuous link between Kahala and Hawaii Kai.

When bikeways are not continuous, cyclists must use roadways that are not designated as bikeways. More confident cyclists often use the street. Less confident cyclists tend to ride on sidewalks or landscaped areas off of the roadway, although riding on sidewalks in business districts, such as Downtown, is illegal.

Segments that contain semi-exclusive/exclusive BRT curbside lanes include Hotel Street (lanes wide enough for shared bicycle use), South King Street between Alapai Street and Ward Avenue (existing bike lane to be retained), University Avenue by Puck's Alley (existing bike lane to be retained), Ala Moana Boulevard between Piikoi Street and Atkinson Drive (lanes wide enough for shared bicycle use), Kalakaua Avenue (existing bike lane to be retained), Kapahulu Avenue (existing bike lane to be retained) and Kuhio Avenue.

Street-by-street descriptions of how the BRT lanes will affect bicycle transportation in the study area are provided below. In general, these impact analyses are based on the principle that the following street changes would improve bicycling transportation:

- new bicycle lane or path;
- curbside BRT lane where it would replace an existing general purpose lane, but would not displace an existing bike lane (cyclists will be allowed to use curbside BRT lanes); and
- widened curbside lane where both vehicles and cyclists can share use safely.

Bicycle transportation service would remain the same if street changes retain curbside conditions of the affected roadway, such as retaining bike lanes or keeping the same curbside lane widths. Bicycle transportation would be adversely affected if curbside lanes are narrowed or the number of through lanes is reduced to a point where motor vehicles cannot pass cyclists safely without venturing onto the BRT lane.

Dillingham Boulevard is not currently designated a bikeway although it links the Keehi Interchange end of the Nimitz Highway bike path with Kalihi and Iwilei. Much of Dillingham Boulevard presently has little or no shoulder space, and the curb lanes are not wide enough for bicycles and motor vehicles to travel side-by-side safely.

The In-Town BRT exclusive BRT lanes are proposed to be generally center running on Dillingham Boulevard, reducing the number of through lanes by two. The impacts on each section of Dillingham Boulevard would be as follows:

- Existing paths/sidewalks will remain between the Nimitz Highway bike path and the first crosswalk on Dillingham Boulevard.
- Between Middle Street and Puuhale Road, the BRT will transition from shared curbside-lane (Ewa bound) and center-running lane (Koko Head bound) to exclusive center-running lanes. However, throughout this section, the width of the curb lanes (shared BRT and general) will range from 14 feet to 18 feet, which is adequate for cyclists and motor vehicles to travel side-by-side.
- Bicycle transportation will improve in the section between Puuhale Road and Waiakamilo Road because the curbside lanes will be widened to 18 feet. This is an improvement over the existing narrower lane width.
- The BRT exclusive lanes will continue on Dillingham Boulevard past Waiakamilo Road, and use Kaaahi Street and Iwilei Road, to link with North King Street. The curbside lane widths would be narrowed to generally 12 feet along this segment, the same as today. However, by reducing the number of general purpose lanes from four to two, vehicles and cyclists would have to share the 12-foot lanes, which is not enough space for vehicles to pass cyclists safely without venturing onto the BRT lane. Cyclists will have the option of using existing bike lanes on Waiakamilo Road and Nimitz Highway, Koko Head of Waiakamilo Road.
- Bicycle transportation will not be affected by the BRT use of Kaaahi Street because it presently has no outlet, and is not used for cycling. Only a very small portion of Iwilei Road would be used for BRT lanes.

The BRT on North King Street will occupy the two mauka side lanes, which will not affect cycling because cyclists could use the makai curb lane when traveling in the Koko Head-bound direction.

The BRT will occupy the existing bus lanes on Hotel Street, an existing bus mall. The Waikiki Branch (Kakaako Mauka and Makai) will use Bishop and Alakea Streets, and the UH Manoa Branch will use Richards Street to South King Street. To maintain access to properties along Bishop, Alakea and Richards Street, the BRT lanes will be shared with other vehicles, except the Koko Head bound BRT lane on Richards Street. Therefore, the existing level of bicycle access on Hotel, Bishop, Alakea and Richards Streets will remain the same.

On South King Street, the Koko Head bound In-Town BRT will occupy general-purpose lanes. Therefore, bicycle transportation along the makai side of South King Street will not be affected along this section. Although a curbside-running Koko Head-bound BRT lane is proposed from Alapai Street to Pensacola Street,

bicycle transportation along this segment will improve because a bike lane will also be provided along this section (see Section 4.6.3).

The Ewa-bound BRT lane on South King Street between Richards Street and Pensacola Street will occupy a new contra-flow lane next to the mauka curb. This will prevent the use of this lane by Koko Head-bound cyclists who currently use this lane to avoid the makai-side lanes that turn onto Kapiolani Boulevard. Cyclists have the option of using an existing shared-use bike path within the Capitol District, which passes next to the State Capitol, Iolani Palace, the State Library, Honolulu Hale and the Municipal Building.

The BRT lanes will be on the Ewa side on Pensacola Street. Cyclists will be able to use both sides of this one-way street, the same as today. On Kapiolani Boulevard between Pensacola Street and Atkinson Drive, the BRT will generally be center running, but some segments will be shared-use along the center and curb lanes. Kapiolani Boulevard is limited as a cycling facility, but since four travel lanes will remain after the BRT is in place, the present level of bike access will be retained.

At Atkinson Drive and Kalakaua Avenue, the BRT will shift to curbside running in general purpose lanes to University Avenue. Since the BRT will be operating in general traffic, the existing level of bicycle transportation along this section of Kapiolani Boulevard will remain the same.

On University Avenue, the BRT will shift to center-running exclusive lanes to King Street. The existing makai-bound and mauka-bound bike lanes will be relocated to the curb, and existing street parking will be removed (see Section 4.5). Therefore, the existing level of bicycle transportation along this section of University Avenue will remain the same. After the King Street stop the mauka bound BRT will operate in mixed traffic to Sinclair Circle so that the existing bike lane can be retained. In the makai direction the BRT will be in an exclusive median lane between Sinclair Circle and King Street. The existing bike lane on this side of University Avenue will be retained also.

The Kakaako Mauka and Kakaako Makai branches of the In-Town BRT start deviating from the UH branch at the Hotel Street/Bishop Street/Alakea Street intersections. The Kakaako mauka and makai branches will then split at the Ala Moana Boulevard/Bishop Street/Alakea Street Intersections, with the mauka branch continuing on Halekauwila Street to South Street, and the makai branch continuing on Bishop Street to Aloha Tower Marketplace, to Aloha Tower Drive, and then on to Ala Moana Boulevard until Forrest Avenue. Since the BRT will be operating in mixed traffic through most of the areas described, the existing level of bicycle transportation will remain the same. One of the BRT lanes on Halekauwila Street will be shared with general-purpose vehicles and the other will be exclusive up to Punchbowl Street. Therefore, there will be a slight improvement in bicycle transportation on Halekauwila Street. Bicycle transportation will not be affected on South Street because cyclists could ride on the Koko Head side of this one-way mauka-bound street.

The Kakaako Mauka branch will operate in Semi-exclusive curbside-running lanes on Pohukaina and Auahi Streets in Kakaako, leaving two through lanes. Therefore, bicycle transportation on these streets will be improved as cyclists will be able to use the semi-exclusive lanes without conflicts from through traffic.

Along the Kakaako Makai branch, from Aloha Tower Marketplace the BRT will operate along Ala Moana Boulevard, Forrest Avenue, Ilalo Street and Ward Avenue in mixed traffic. Bicyclists will therefore be unaffected. The Kakaako Makai branch rejoins the Kakaako Mauka branch at the Ward Avenue/ Auahi Street intersection. After traveling on Auahi Street in semi-exclusive lanes, the two branches transition to Ala Moana Boulevard via Queen Street. From Queen Street to just Koko Head of Atkinson Drive, the Koko Head-bound BRT will be on Ala Moana Boulevard in a curbside-running semi-exclusive lane and the Ewa-bound BRT will be in a center-running exclusive lane. Ala Moana Boulevard attracts very little bicycle usage because of a lack of shoulder space, and motor vehicles travel at relatively high speeds. A current alternative to using Ala Moana Boulevard between Queen Street and Atkinson Drive is a shared-use pedestrian/bicycle path within Ala Moana Regional Park running along the park's mauka-boundary near, and parallel to, Ala Moana Boulevard. In the Koko Head bound direction, the BRT lane will improve bicycle transportation because of

the semi-exclusive BRT curbside lane. However, the bicycle transportation service will remain the same in the Ewa bound direction.

From Atkinson Drive to Hobron Lane, the Ewa-bound BRT will be in a center-running exclusive lane on Ala Moana Boulevard. It will be in a semi-exclusive curb lane between Hobron Lane and Kalia Road. The Koko Head bound BRT on Ala Moana Boulevard will be in a curb-running semi-exclusive lane between Atkinson Drive and Kalia Road.

Continuing on in Waikiki, the BRT will follow a curbside alignment on Kalia Road, Saratoga Road, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenue. These BRT lanes will be mostly semi-exclusive lanes. None of these streets are designated bikeways. Since cyclists will be allowed to use these BRT lanes, the Refined LPA will improve bicycle transportation in Waikiki.

4.7.2 Impacts to Future Bikeway Facilities

The Honolulu Bicycle Master Plan (April 1999) calls for the development of an integrated network of bikeways that would link people with their destinations. The State Department of Transportation has recently published a draft Bike Plan Hawaii: A State of Hawaii Master Plan (May 2003), which updates the 1994 version of the plan.

The recommendations of both plans are similar. The Honolulu Bicycle Master Plan recommends the development of a regional bike corridor, which would be a grid of east-west and mauka-makai bikeways. Figures 3.1-4A through 3.1-4C show the recommended bikeways in the Honolulu Bicycle Master Plan.

The No-Build Alternative would not affect the proposed bikeways.

The TSM Alternative could affect the proposed bikeways because of the network of semi-exclusive lanes that are proposed in the PUC. Bicycles would be able to share the semi-exclusive lanes with transit vehicles.

With the Refined LPA, the following street segments, which are proposed by the Honolulu Bicycle Master Plan to be used for bikeway facilities, will also be used by the proposed In-Town BRT:

- Dillingham Boulevard between Keehi Interchange and Puuhale Road;
- North and South King Streets between Iwilei Road and Pensacola Street;
- University Avenue between Varsity Place and Maile Way; and
- Ala Moana Boulevard between Downtown and Waikiki.

Therefore, these future bikeway facilities may be jointly planned with the In-Town BRT to enhance both transit and bicycle travel. For example, the Refined LPA includes bike lanes on South King Street between Alapai Street and Pensacola Street.

4.7.3 Mitigation Measures

To improve or maintain the level of bicycle transportation in the study area, the following bicycle enhancement projects will be provided under the Refined LPA:

- Curbside semi-exclusive BRT lanes at various locations to be shared with bicyclists;
- Widen the curbside lanes on Dillingham Boulevard from 14 feet to 18 feet between Middle Street and Waiakamilo Road; and,
- Bike lane on South King Street between Alapai Street and Pensacola Street.

4.8 PEDESTRIAN IMPACTS

All of the alternatives will preserve existing pedestrian facilities, such as sidewalks and walking paths. All the elements of the Refined LPA will be constructed primarily on existing roadways and existing pedestrian street crossings will be preserved. Full pedestrian access will be provided at transit centers and curbside In-Town BRT stops in conformance with the Americans With Disabilities Act (ADA). Existing signalized cross walks will be upgraded to access center-running In-Town BRT stops.

Moreover, the Refined LPA will provide benefits for pedestrians in a number of ways. Transit will use less space to carry more people than automobiles. Environmentally friendly transit vehicles will produce less noise and air pollution. These factors will contribute to an improved urban walking experience. As transit begins to carry a heavier load of trips under this alternative, the transportation system will become more balanced and walking would play a greater role.

If the local communities so desire, redevelopment around the transit centers and transit stops will allocate resources for pedestrian improvements. This will provide the opportunity to widen and landscape sidewalks making urban Honolulu a more attractive place. Growth focused around the BRT system could be tailored to transit/pedestrian oriented uses.

4.8.1 Special Event Impacts

None of the alternatives will affect parades and large events, such as Hoolaulea, that are held on Ala Moana Boulevard and/or Kalakaua Avenue, even the Refined LPA with its In-Town BRT. When required the Kakaako/Waikiki Branches of the In-Town BRT can be rerouted during parades, just as the bus routes along these streets are rerouted during parades today. The embedded-pate technology may require the substitution of buses for the BRT vehicles along that branch or branch segment during parades and special events.

CHAPTER 5 ENVIRONMENTAL ANALYSIS AND CONSEQUENCES

CHAPTER OVERVIEW AND ORGANIZATION

This chapter consists of two major sections. Section I covers the IOS and Section II covers the three alternatives for the Primary Corridor Transportation Project. This Chapter discusses the potential impacts on the built and natural environments that the IOS may have in 2006 and that the corridor-wide alternatives may have in 2025. The purpose of this presentation is to disclose fully the beneficial and adverse impacts of the proposed project and the alternatives that were considered. Laws do not require selecting the alternative with the least adverse impacts, but the consequences of selecting each alternative must be disclosed.

The first section of this Chapter (Section I) is specific to the impacts of the IOS from Iwilei to Waikiki, the first segment of the Refined LPA to be built. The impact analyses of the IOS reflect conditions in 2006, shortly after the opening of the IOS in 2005. The impact analyses presented in Section II reflect conditions in 2025 for each of the entire primary transportation corridor alternatives - the No-Build Alternative, TSM Alternative, and Refined LPA.

Each section is organized around technical disciplines. Both the short-term (construction-phase) and long-term (operational-phase) benefits and impacts associated with the project are addressed within each discipline.

This Chapter includes discussions of the following environmental, socio-economic, and cultural parameters:

- Land Use/Employment
- Displacements/Relocations of Existing Land Uses
- Neighborhoods
- Visual and Aesthetic Resources
- Air Quality
- Noise/Vibration Levels
- Ecosystems
- Water Resources
- Energy Usage
- Historic and Archaeological Resources
- Parkland Resources

Measures to mitigate adverse impacts are identified, and these mitigation measures are included in the project definition.

I. IWILEI TO WAIKIKI (IOS)

The IOS from Iwilei to Waikiki will be the first segment of the Refined LPA to be built. The impact analyses of the IOS reflect conditions in 2006, a year after the expected implementation of the IOS in 2005. This early year analysis permits an assessment of conditions expected prior to the entire Refined LPA being in place.

Table 5-1 summarizes the transportation and environmental impacts that are anticipated in 2006 as a result of implementing the IOS. It should be noted that any potentially significant impacts resulting from implementing the IOS will be mitigated.

LONG-TERM IMPACTS

For many of the environmental factors, the IOS will have no impacts and/or require no mitigation measures. For those factors that may potentially have adverse impacts and/or require mitigation, brief descriptions are provided below. For detailed discussion of all environmental disciplines, see Section IOS.5 on pages IOS-31 to IOS-58 in the IOS Chapter, which follows Chapter 5.

1) Displacements and Relocations

In general, the IOS facilities will be constructed within existing roadways, with the exception of the widening of Kalia Road in Fort DeRussy. The IOS will not result in the displacement of any residence, business, or institution. At Fort DeRussy, there will be a partial displacement of landscaped areas next to the road, however, no buildings or structures will be affected. The removed landscaping will be replaced with similar landscaping along Kalia Road.

2) Visual and Aesthetic Resources

The IOS will provide opportunities to enhance the visual quality of a portion of urban Honolulu by developing public spaces with more landscaping and street-level amenities that will improve the visual quality of the streetscape and enhance the pedestrian experience. The physical improvements and landscape treatments of the IOS will be designed to reinforce the character of neighborhoods and provide a visual sense of place.

Some IOS transit stops will be located in areas with high visual or aesthetic value, and may cause visual impacts if transit stop structures such as canopies and kiosks visually intrude upon important surrounding viewsheds. Therefore, each transit stop will be uniquely designed to fit appropriately into each setting and, where possible, to enhance the aesthetics of the area. Sensitive areas where construction of transit stops is planned include:

- Downtown
- Aloha Tower
- Kakaako Makai Gateway and Waterfront Parks
- Fort DeRussy and along Kalakaua Avenue
- Kapiolani Park

The IOS transit stops in or near these areas will require special design treatment. Effective planning with area businesses, residents, and agencies will result in design features sensitive to each area.

3) Ecosystems

The only faunal species of potential concern within the IOS area is the white tern (*Gygis alba*). White terns are a State of Hawaii designated endangered species on Oahu, which use Kapiolani Park and Fort DeRussy as habitat, among other areas. White terns are well adapted to urban environments, and the IOS is not expected to cause adverse interactions with this species, including its eggs, which are laid on bare tree branches. Nevertheless, a survey of the IOS corridor will be conducted for white terns and their eggs prior to completing final design. If sensitive trees or areas are identified, they will be monitored immediately prior to and/or during construction. If affected trees are relocated or trimmed (see Section 5.7.2), monitoring will be coordinated with the U.S. Fish and Wildlife Service, and the City's Department of Parks and Recreation will be consulted because they have standard procedures to avoid impacts to white terns and their eggs.

TABLE 5-1
SUMMARY OF IOS IMPACT ASSESSMENTS AND MITIGATION MEASURES

	IOS IMPACTS	MITIGATION
ENVIRONMENTAL FACTORS		
Land Use, Development, and Plan Consistency	Consistent with HCDA Kakaako Makai Plan. Serves UH Medical School and related facilities currently under construction.	None necessary.
Business and Residential Displacements	Displacement of some landscaped areas at Fort DeRussy. No buildings or structures will be affected.	Landscaping removed at Fort DeRussy will be replaced with similar landscaping nearby along Kalia Road.
Neighborhoods and Environmental Justice	The IOS will not cause disproportionately high and adverse health or environmental effects on any minority and low-income population and will provide many positive transit benefits.	None necessary.
Visual Character	IOS transit stops located in areas with high visual or aesthetic value may cause adverse visual impacts. Landscaping altered by the project may cause changes to the visual environment at certain locations.	IOS transit stops located in areas with high visual or aesthetic value will be designed to be appropriate in each setting and where possible will enhance the aesthetics of the area. Any existing landscaping affected by the IOS will be mitigated through provision of new street plantings and tree replacements.
Air Quality	No impact.	None necessary.
Noise/Vibration	No impact.	None necessary.
Ecosystems – Faunal Species	No impact. White terns (State of Hawaii endangered species on Oahu) occur in the IOS corridor, but no adverse impacts are expected.	Even though no adverse impacts are expected, a survey of the IOS corridor will be conducted for white terns and their eggs prior to completing final design. If sensitive trees or areas are identified, they will be monitored immediately prior to and/or during construction. Relocation and/or trimming of trees will be coordinated with the City's Department of Parks and Recreation.
Ecosystems – Botanical Resources	Construction of the IOS will displace 47 trees, of which nine are "notable" trees on Kalia Road. Some tree trimming will be required. No designated exceptional trees will be affected.	A tree preservation plan will be prepared. Affected trees will be relocated near their original locations or replaced in accordance with the tree preservation program.
Water	No impact.	None necessary.
Energy Consumption	No adverse impact.	None necessary.

TABLE 5-1 (CONT.)
SUMMARY OF IOS IMPACT ASSESSMENTS AND MITIGATION MEASURES

	IOS IMPACTS	MITIGATION
Historic and Archaeological Resources	Development of the Alakea and Saratoga Transit Stops may "adversely affect" historic sidewalk features and lava rock curbs, which are considered historic. Development of the IOS is not expected to uncover buried archaeological resources or native-Hawaiian ancestral burial sites.	In accordance with the project's Memorandum of Agreement, DTS will work with the State Historic Preservation Division (SHPD) and other interested parties to explore using the lava rock curb material in the design of the two IOS transit stops affected. If burials or archaeological artifacts are uncovered during construction, work will stop and the SHPD will be notified immediately for appropriate action.
Parklands	The IOS will generally improve transit access to parks in the study area. Transit stops adjacent to parks could adversely affect their visual and aesthetic characteristics, even though no park property is used.	Transit stops near parks will require special design treatment.
Indirect and Cumulative	Substantial land use changes are not anticipated. The IOS may stimulate planned transit-oriented commercial and residential development. The IOS will be an important addition to the transportation infrastructure, supporting planned developments in Kakaako and Waikiki. The IOS and other planned developments will enhance short- and long-term employment.	None necessary.
Construction Impacts	Construction impacts will be temporary. Construction activities on streets will likely result in temporary traffic delays, detours, and bus stop relocation. Construction equipment and vehicles delayed by construction activities will increase emissions of fugitive dust and automotive air pollutants, such as carbon monoxide. Construction equipment also emits relatively high noise emissions, which could disturb nearby residences, schools, office buildings, and other noise-sensitive uses. Impacts to surface and groundwater resources are not expected due to best management practices. Utility services may be disrupted causing inconveniences to affected residences and businesses.	The Construction Management Program for the IOS will address all standard construction-period traffic and transportation issues. In addition, contractors will be required to comply with all applicable air quality, noise, and water quality laws. Substantial planning, including resident and business notifications, will be conducted to minimize inconveniences should interruptions in utility service be required.

Source: Parsons Brinckerhoff, Inc., April 2003.

The vegetation within the IOS corridor consists mostly of maintained plantings, such as landscaping on roadway medians and shoulders and adjacent properties. Construction of the IOS transit stops and semi-exclusive and exclusive transit lanes will displace some of the corridor's landscaping, requiring the relocation or removal of trees. A total of 47 trees will be affected by the IOS, of which nine are considered "notable", which is defined as a tree deemed to be important to the urban landscape character. The nine notable trees include a cluster of Date (*Phoenix dactylatra*) and Royal Palms (*Roystonea regia*) on Saratoga Road (healthy palms only) and banyans (*Ficus spp.*) on Kalia Road.

Mitigation for impacts on landscaping will consist of re-vegetation and landscape redesign along the alignment where possible. All 47 trees affected by the IOS will be relocated on-site or replaced as part of the tree preservation program.

4) Historic and Archaeological Resources

Pursuant to Section 106 of the National Historic Preservation Act, a Memorandum of Agreement (MOA) has been prepared to document the anticipated adverse impacts. A copy of the MOA is included in Appendix A.

The FTA has determined that the Alakea and Saratoga Transit Stops will "adversely affect" lava rock curbs, which are considered "historic" by the SHPD, because they will be temporarily removed during construction. The DTS will reuse the lava rock curb material in the design of the two IOS affected transit stops.

It is highly unlikely that the IOS corridor contains archaeological resources, artifacts or sites, and burial sites at or near the ground surface. Subsurface archaeological resources have been discovered in the Fort DeRussy area, and along Kalakaua Avenue in Waikiki, but the construction of IOS transit lanes and stops will excavate to much less depths than previous construction activities. In the unlikely event that a burial or archaeological artifact is uncovered during construction, work will stop and the State Historic Preservation Division (SHPD) will be notified immediately. Should a burial site be found during construction, specific legal procedures and cultural practices will be followed, such as involvement by the Oahu Island Burial Council. Construction would resume upon approval by appropriate authorities.

5) Parklands

In general, the IOS will enhance the value of the park and recreational resources in the study area by improving their accessibility for transit users. In addition, the IOS will not require land from or cause proximity impacts to any of these park or recreational resources. However, the transit stops adjacent to parks have the potential to adversely affect the aesthetic characteristics of these parks, even though these transit stops will not use park property. Therefore, this transit stop will require special architectural design treatment.

6) Other IOS Environmental Issues

Although the following environmental factors regarding the IOS are not anticipated to be adverse and/or require mitigation, brief descriptions are provided below because they may be of importance to the community. As noted above, detailed discussion of all environmental disciplines are provided in Section IOS.5.

Environmental Justice

Two minority and low-income populations, Kalihi-Palama and Chinatown, are within the IOS service area. These communities will not experience disproportionately high and adverse health or environmental effects due to the IOS, but both will experience improved transit service. In addition, public participation activities for the project occurred islandwide from 1998-2003. General outreach efforts included a project website, print

ads, newspaper articles, legal and public notices, Progress Report newsletters, and mass mailings that included the two EJ populations identified above.

Floodplains

Although portions of the IOS alignment are within floodplains, development of the system will largely be limited to areas within or near existing roadways and do not involve the types of changes that would affect floodplains or the potential for flooding. The project is in compliance with U.S. DOT Order 5650.2 on Floodplain Management and Protection. Any required construction will comply with the rules and regulations of the National Flood Insurance Program and all applicable ordinances for flood hazard districts.

Indirect Impacts

Under certain market conditions, transit-oriented development and/or re-development, such as mixed-use high density residences and pedestrian-scale commercial districts, have the potential to flourish in areas immediately surrounding IOS transit stops. However, the Primary Urban Center is already highly urbanized, and the IOS in the year 2006 would have little time to influence development or market conditions.

SHORT-TERM IMPACTS

This section presents an assessment of the temporary impacts of construction of the IOS and mitigation measures related to those impacts. Most of the IOS will be placed within the same rights-of-way as the existing surface roadway system, which must remain operational throughout construction. The IOS is being planned, designed and scheduled to meet this challenge with minimal disruption. However, some impacts on the environment, nearby facilities, and established patterns of activity are inevitable. These impacts will be temporary, and their severity will depend largely on the type of construction methods employed, how they will be carried out, and what controls are exercised. Sections 5.12 and IOS.5.12 in the IOS Chapter address these issues in more detail.

1) Transportation and Circulation

The Construction Management Program for the IOS will include development of a "Maintenance of Traffic Plan". This plan, which will be reviewed and approved by the City Department of Planning and Permitting (DPP), will include systemwide as well as subarea consideration of the most important traffic and transportation issues and mitigation measures. The plan will address traffic rerouting, maintenance of residence and business access, parking, and other issues. See Section IOS.5.12.1 in the IOS Chapter for additional details.

2) Displacements, Relocation and Restricted Access for Existing Uses

No permanent displacements and relocations will be necessary for the IOS. The IOS will require temporary areas for construction staging. There are a number of vacant sites along the IOS alignment that could serve as construction staging areas.

3) Neighborhoods and Businesses

Adverse impacts to neighborhoods and businesses near construction sites will be related primarily to disruptions of local transportation and circulation patterns, and air and noise emissions caused by construction vehicles and equipment, and vehicles delayed by construction. These impacts are addressed in other sections.

4) Air Quality

Construction will cause emissions of fugitive dust, airborne particulate matter of relatively large size. Fugitive dust will be generated by particulate matter being kicked up by such activities as excavation, demolition, clearing, stockpiling, hauling, vehicle movement, and dirt tracking onto paved surfaces at access points. Fugitive dust also will be generated from the material processing and storage that will occur at the stockpile areas associated with recycling usable portions of excavated material.

Carbon monoxide (CO) is the principal pollutant of concern in localized areas. Since emissions of CO from motor vehicles increase with decreasing vehicle speed, disruption of traffic during construction could result in short-term elevated concentrations of CO. To minimize CO emissions, efforts will be made during construction to limit disruptions to traffic through prior planning of alternate routing, traffic control, and public notices, especially during peak travel periods.

Contractors will be required to comply with all applicable air quality laws to limit adverse effects on air quality from demolition, clearing, material processing and construction activities, as well as from construction vehicles.

5) Noise and Vibration

Noise generated from construction of the IOS could adversely affect nearby residences, schools, office buildings, and other noise-sensitive activities. To minimize the level of impact, a specification for noise and vibration limits from construction activities will be developed and enforced. The specification will be submitted to the Hawaii Department of Health (HDOH) for their review. An industrial hygienist will monitor compliance with the specification during construction through on-site noise and vibration monitoring during various stages of construction. The Construction Management Program for the IOS will explicitly address the minimization of noise levels generated during construction. See Section IOS.5.12.5 in the IOS Chapter for additional details.

Vibration levels at adjacent structures will be monitored and the structures protected from vibration impacts, as necessary.

6) Water Quality

During construction of the IOS, impacts to surface water would be associated with point and non-point source stormwater discharges and dewatering discharges. Impacts to surface and groundwater resources potentially could occur from discharges containing particulate (sediment) and chemical contaminants. Erosion and sediment discharges will be minimized through the application of Best Management Practices (BMPs) techniques designed to minimize erosion and capture sediment prior to discharge. Details of the BMPs will be developed during final design of the IOS and detailed erosion and sediment control plans will be included in the final construction plans for the IOS. Studies at specific locations to identify potential chemical contaminants in dewatering and stormwater discharges and stockpile drainage will be performed during final design of the IOS. Any dewatering discharge will require a dewatering permit that could only be obtained after designing an appropriate treatment process to ensure that the discharge meets water quality standards.

Spills associated with construction activities also pose a potential threat to water resources. Development of a Spill Containment Control and Countermeasure Plan, including maintenance of clean-up equipment on-site, along with detailed spill prevention measures, will mitigate the impact of inadvertent releases.

See Section IOS.5.12.1 in the IOS Chapter for further details and mitigation measures.

7) Ecosystems

Wildlife habitat is very limited along the IOS alignment and construction of the IOS will have no major effect on the characteristics or size of populations of the resident wildlife species in the area. Even though no adverse impacts are expected, a survey of the IOS corridor will be conducted for white terns and their eggs prior to completing final design, as discussed above.

Construction impacts on trees will consist of permanent removals and/or relocations of trees that are not compatible with the road widening of Kalia Road. Mitigation is addressed in Section IOS.5.7 in the IOS Chapter and will be described in detail in the tree preservation plan to be developed with a qualified certified arborist. A qualified certified arborist will also prepare a tree protection plan to be used during construction. A Street Tree Review will also be conducted by the DPP as part of the construction plan review by the City. The DPP's Street Tree Review applies only to those trees not located within a Special Design District.

8) Utility Service

The IOS will affect few major utilities but many minor ones. Substantial planning will occur so that interruptions in utility service to customers are minimized. Disruptions to utility service, if necessary, will be restricted to short-term localized events. Many of the utilities that are to be buried underground or moved to another underground location could be relocated simultaneously with existing utilities to minimize the need for multiple excavations. As much as possible, relocated utilities will be buried together or coordinated with infrastructure improvements already planned by the City or other agencies. Coordination of utility relocations will be scheduled, programmed, and monitored as a part of the Construction Management Plan and Public Participation Program.

9) Economic

Construction activities associated with the IOS will result in temporary construction related jobs. During construction of the IOS, local businesses could be negatively affected by increased congestion in front of their properties or by reduced access. Location-specific measures, including access, safety, noise and aesthetic requirements of adjacent businesses, will be identified during final design and incorporated into construction contracts. A public information program for commuters, tourists, local residents and the business community will be sustained. A community and government agency mitigation involvement program will be initiated to allow for the exchange of information and ideas for mitigating construction related problems if they arise.

10) Historic Resources and Archaeology

Discussion of the potential impacts on historic properties is provided in Section IOS.5.10 in the IOS Chapter. Historic-period resources will not be affected by construction of the IOS because these properties will not be in the construction area, nor will they be used to store equipment and vehicles or used as staging areas. There is a chance that construction along certain sections of the IOS, such as in Waikiki, could uncover Kupuna Iwi (ancestral bones) or other archaeological artifacts. However, the alignment is mostly urban and has been substantially altered for many years. In addition, most of the project requires little excavation. The project's MOA will provide procedures in the unlikely event that unanticipated resources are encountered during construction of the IOS. The SHPO will be notified immediately if any bones, artifacts or other signs of historic occupation are observed.

UNRESOLVED IOS ISSUES

Most issues raised during the extensive public involvement, coordination, and consultation conducted for this project have been addressed in the FEIS, although some issues remain unresolved. The unresolved issues are presented below with a brief discussion regarding resolution of the issue.

1. Transit Stop Design. The design of the the architectural elements of the transit stops along the IOS corridor will involve public and agency input. When transit stops are near visually important areas, they will be given special design consideration to ensure there is no negative visual impact.

2. Tree Relocations. The exact locations where affected trees will be replanted will be determined during final design.

II. OVERVIEW OF 2025 ALTERNATIVES

The remainder of this chapter describes the impacts and mitigation measures for the corridor-wide Alternatives, including the entire Refined LPA, as implemented in Year 2025.

As described in Section 2.2, all three of the corridor-wide Alternatives - No-Build Alternative, TSM Alternative, and Refined LPA - would utilize future transit centers and park-and-ride facilities needed to support the City's on-going conversion of its radial bus route system to a hub-and-spoke system. Many of these transit centers and park-and-rides will be built as independent projects regardless of which alternative is implemented. With the TSM Alternative and Refined LPA there would be an incremental increase in transit use of these future centers or "hubs" over what would occur under a no action or No-Build scenario. The following discussion describes the environmental impacts of these incremental differences as well as the impacts of other features of the TSM Alternative and Refined LPA that are not part of the No-Build Alternative.

The impacts of the No-Build Alternative compared to the existing conditions (Chapter 3) are discussed below. The analyses show that the No-Build Alternative poorly supports the purposes and needs of the project, as described in Chapter 1. The No-Build Alternative does not provide a transportation system that would effectively handle present or future travel demand levels. It would not maintain even current mobility levels, encourage land use development in desired patterns, support implementation of an urban growth strategy that integrates land use and infrastructure planning, or maintain the existing quality of life. The No-Build Alternative would rely on conventional diesel buses, at least for the immediate future, and continue the present focus on automobiles for transportation. Consequently, regional air pollutant emissions would worsen by between 15 to 30 percent by 2025, although increased emissions may be offset by reductions resulting from vehicle emission improvements. Localized (intersection-level) air quality (worst-case 1-hour microscale concentrations) would generally worsen, but not to a point where they would violate National Ambient Air Quality Standards. Noise levels along streets would remain similar to present levels, even with an increase in diesel buses and vehicles, because the vehicles would be moving more slowly ("pass by" noise increases with speed).

Compared to the future No-Build baseline conditions, the TSM Alternative, with its emphasis on revamping bus service and some bus priority improvements, would provide moderate support to the project's purposes and needs by enhancing people-carrying capacity within the corridor. However, this alternative would not support desired land use development patterns or the City's urban growth strategy that integrates land use and infrastructure planning.

The TSM Alternative on the average would not worsen air quality conditions. Noise levels would not increase, again because of the trade-off between more vehicles and slower speeds. Impacts to neighborhoods, historic resources, ecosystems, water resources, and parklands would be similar to those under the No-Build Alternative. The Refined LPA represents a major transportation improvement over the TSM Alternative in terms of meeting the project purposes and needs. It will substantially increase people-carrying capacity within the corridor and help focus growth along the In-Town BRT alignment. Higher density redevelopment in a transit-supportive manner, particularly at transit centers and transit stops, will be encouraged. This alternative will be more effective than the TSM and No-Build Alternatives in supporting implementation of an urban growth strategy that integrates land use and infrastructure planning. It will help facilitate desired land use development patterns consistent with the vision for the island. It will improve connections between Kapolei and the Primary Urban Center (PUC), and among communities in the PUC.

The Refined LPA could potentially require the loss of 4-acres from a farm, as well as partial displacements affecting 29 additional properties resulting from the loss of off-street parking, landscaping, and/or the reconfiguration of driveways. These partial displacements would result primarily from road widening on Dillingham Boulevard. Affected landowners would be compensated for these partial property takings, if they are required.

Consultation under Section 106 of the National Historic Preservation Act is continuing. The Refined LPA will cause an "adverse effect" on Chinatown, the Capital District, and Thomas Square because these resources have visual integrity, which may be affected by the transit stops. Therefore, the FTA and the State Historic Preservation Officer (SHPO) will be executing a Memorandum of Agreement (MOA).

In the Refined LPA, transit stops and other project elements will be designed to maintain or improve visual conditions through cohesively designed landscaping, street furniture, street trees and lighting. Transit stops in special design districts will be designed to harmonize with their unique environments. For example, the Refined LPA will have transit stops in Chinatown, Thomas Square, the Hawaii Capital Special Districts, and on Kalakaua Avenue fronting the Duke Kahanamoku statue. However, the transit stops will avoid placing canopies or other elements such that they will affect views of any important landmarks. The Luapele ramp included in this alternative would introduce a new visual element.

By using electric bus technology along the In-Town portion of the alignment, the Refined LPA will reduce emissions compared to the diesel buses in the No-Build and TSM Alternatives. Additionally, because the Refined LPA will reduce automobile travel, regional air emissions will be less. Also, the electric buses will generally be quieter than conventional diesel buses.

The Refined LPA construction impacts will be greater than those of the TSM Alternative because construction is more extensive. For example, concrete transit lanes and transit stops will be constructed along the In-Town BRT alignment. Construction impacts will be temporary and detailed mitigation plans will be developed, including a traffic maintenance plan. An archaeological contingency procedure has been developed for the unlikely event that unanticipated archaeological resources are encountered during construction.

Neighborhood and water resource impacts will be similar to the No-Build and TSM Alternatives.

The project definition for the Refined LPA includes the following project refinements and clarifications that have been made to the project in response to public and agency comments received on the SDEIS:

Changes:

- Relocation of Park-and-Ride Facility from Kunia Road to North-South Road
- SDOT proposed ramps at Wakea Street substituted for Direct BRT/HOV Ramp in Kapolei
- SDOT proposed ramps at North-South Road substituted for Direct BRT Ramp at Kunia Road
- Use of existing Middle Street off-ramp instead of a Direct BRT/Park-and-Ride Ramp
- Minor rerouting of In-Town BRT from Channel Street onto Forrest Avenue

Clarifications:

- H-1 Express Lanes from Kapolei to Managers Drive to be built by SDOT whether BRT is built or not
- In the initial years of operation the In-Town BRT will operate in semi-exclusive lanes, not exclusive lanes on Kapiolani Boulevard between Pensacola Street and Atkinson Drive
- Hybrid diesel/electric buses will be used on the In-Town BRT until more advanced technologies are service proven

Any potential impacts caused by these changes in response to comments on the SDEIS are included in this chapter. These changes did not result in any additional adverse environmental impacts, and in some cases lessened the anticipated project impacts. Implementation of the entire Refined LPA, including the Regional BRT, will be phased over 14 years. As described in Chapter 2, implementation of the In-Town BRT will begin with construction of the Initial Operating Segment (IOS) Iwilei-Waikiki Branch from 2003 through 2005. The IOS initially will use hybrid diesel/electric buses.

The potential impacts from the IOS and the remainder of the Refined LPA are included in the overall assessment of impacts described in this chapter. In addition, the IOS Chapter following Chapter 5 provides details on the potential impacts and proposed mitigation measures associated specifically with implementation of the IOS.

The remainder of the In-Town BRT will be started shortly after the IOS, with concurrent implementation of the Kalihi Segment (2004 – 2006), Downtown – University segment (2005 – 2007) and Kakaako Mauka segment (2005 – 2006). A decision will be made in 2008 if the system will be converted to use embedded plate technology. Implementation of the embedded plate system, if selected as the long-term propulsion technology, would begin with construction along the Iwilei to Waikiki segment in 2010.

5.1 LAND USE AND EMPLOYMENT

This section analyzes the potential effects the alternatives would have on existing land uses, development projects and land use plans and policies. Section 5.1.1 summarizes the land use findings. Section 5.1.2 focuses on the regional impacts, while Section 5.1.3 focuses on corridor-level impacts such as accessibility, land use and development, and consistency with plans and policies. Section 5.1.4 discusses transit center and transit stop area impacts. The concluding section summarizes the effects the alternatives would have on employment.

5.1.1 Overview

The Refined LPA's transit components will be compatible with and support current land use plans and policies that link transportation and land use through transit-oriented goals and objectives. The No-Build and TSM Alternatives would be less supportive of proposed public policies and plans.

The sense of permanence can have a major effect on land use and development. Among the alternatives that were evaluated, the sense of permanence referred to in Section 2.2.3 would best be met by the Refined LPA rather than the No-Build and TSM Alternatives because only the Refined LPA will provide a major investment in a fixed transitway. Conventional bus routes can be changed "overnight", which does not convey a sense of permanence to developers interested in investing in a community.

Related to permanence, transit system technology can also be a factor in land use and development. As described in Section 2.2.3, there are two transit technologies currently being considered for the In-Town BRT element of the Refined LPA. The embedded plate technology would require a higher public investment than the hybrid diesel/electric technology in wayside improvements, such as power modules, traction power supply stations, and utility relocation. The embedded plate-powered vehicles obtain wayside power from plates embedded in the pavement, whereas hybrid diesel/electric vehicles obtain power internal to the vehicle using diesel engines and batteries. The fixed infrastructure needed by the embedded plate technology provides the permanency that could spur transit-oriented development in certain areas. This is in addition to public investment in transit lane pavement and lane delineations, stations, streetscape furnishings, and modified traffic signals that give priority to In-Town BRT vehicles, which would also be provided if the hybrid diesel/electric technology were used.

Complementary transit services (e.g., circulator bus routes) that will connect with the In-Town BRT may also help focus development to selected areas. Therefore, the Refined LPA will provide the type of public investment that could encourage transit-oriented development in targeted areas, especially if this investment is accompanied by transit supportive land use policies relative to zoning, parking, and mixed-uses.

5.1.2 Regional Impacts

The study area is mostly urban. As described in Section 3.1, study area land uses vary widely from dense residential, business and commercial districts to industrial parks to suburban residences to agricultural fields to undeveloped conservation and open space. While the Refined LPA could facilitate transit-oriented development along the In-Town transit spine, it would be unlikely to change other land use trends along other places in the study area. The Refined LPA will convey government's willingness to invest in a fixed transit system thereby providing a sense of permanence in the primary transportation corridor, a policy action that has had strong influence in generating much needed developer interest in cities elsewhere. This same policy may help focus transit-oriented development along the In-Town BRT alignment particularly at transit stops. Examples of transit-oriented development include mixed-use high density residences and pedestrian-scale commercial districts.

5.1.3 Corridor Level Impacts

1) Land Use and Accessibility

One of the major factors affecting land development is transportation accessibility. Linkages to major destinations and activity generators, such as employment centers (e.g., central business districts), schools, shopping centers and parks or recreational resources, make real estate attractive for land development. Conversely, properties with poor linkages to activity centers are not as attractive as properties that have good access, which make them poor candidates for land development. Transportation can be a powerful tool the City can use in promoting transit-oriented development in certain areas. Transit-oriented development has improved the quality of life in the urban environment of other cities.

As shown in Table 5.1-1, Major Destinations in the Primary Urban Center (PUC), the alternatives would offer varying service levels to important economic centers in the PUC. These centers are the major travel destinations of the PUC, such as Aloha Stadium, Pearl Harbor, Ala Moana Center, and Waikiki, the State's principal visitor accommodation center. As shown on Table 5.1-1, the Refined LPA will provide better transit service to most of these destinations as compared to the No-Build and TSM Alternatives.

2) Land Use and Development

Considering a major transit investment is not only focusing on mobility but also on broader land use planning objectives to direct future growth to existing urban areas in a manner that will improve the quality of the urban lifestyle and potentially protect agricultural land and open space from urban development.

Since the Refined LPA will provide substantially better transit service than the TSM and No-Build Alternatives and will provide a permanent, fixed piece of transportation infrastructure (In-Town BRT) within the urban core of Honolulu, it will facilitate transit-oriented development, consisting of higher-density mixed residential and commercial land uses. It is doubtful that the TSM or No-Build Alternative would encourage transit-oriented development in the urban core. Investments in fixed facility-type transit, such as the In-Town BRT, have resulted in transit-oriented development in other cities, such as Portland, Oregon; San Diego, California; and Denver, Colorado.

A fixed transit corridor can serve as the backbone of a compact, sustainable city. Such a permanent facility signals to the development community a commitment to permanent access and travel markets. A fixed transit system such as the In-Town BRT coupled with transit supportive land use policies relative to zoning, parking,

TABLE 5.1-1
MAJOR DESTINATIONS IN THE PRIMARY URBAN CENTER

Site	Location	Size or Service Levels	No-Build	TSM	Refined LPA
1	Pearl City Shopping Center	250,000 sq. ft. GLA	0	0	+
2	Pearlridge Center	1,400,000 sq. ft. GLA	0	0	++
3	Pearl Highlands Center	409,847 sq. ft. GLA	0	0	++
4	Aloha Stadium	About 50,000 seats	0	+	++
5	Stadium Mall	220,287 sq. ft.	0	+	++
6	Salt Lake	17,121 residents in 2000	0	0	0
7	Pearl Harbor Naval Base	15,000 workers	0	0	0
8	Arizona Memorial	1.5 million attendees/year	0	0	0
9	Honolulu International Airport	9 million passengers/year	0	0	0
10	Mapunapuna	163 acres	0	0	+
11	Middle Street Industrial Area	NA	0	+	++
12	Honolulu Community College	4,000 students	0	0	++
13	Kalihi/Palama	37,987 residents in 2000	0	0	++
14	Costco Warehouse	150,000 sq. ft.	0	0	+
15	Home Depot	145,000 sq. ft.	0	0	+
16	Kalihi Kai Industrial District	585 acres	0	0	0
17	Sand Island	About 510 acres	0	0	0
18	Iwilei Industrial District	320 acres	0	++	++
19	Chinatown	About 30 acres	++	++	++
20	Downtown Financial District	60,000 daytime population	++	++	++
21	Government Centers (Federal/State/City)	About 150 acres, 3 million sq. ft.	++	++	++
22	Queen's Medical Center	About 750,000 sq. ft.	+	+	+
23	Kakaako	over 600 acres; 20,000 workers	0	0	++
24	Victoria Ward Centers	over 250,000 sq. ft.	0	0	++
25	Neal Blaisdell Center	22 acres; about 400,000 att./year	0	0	++
26	Kapiolani Business District	About 2 million sq. ft. commercial	0	0	++
27	Ala Moana Center	2 million sq. ft. GLA	++	++	++
28	Ala Moana Park	About 120 acres	++	++	++
29	Hawaii Convention Center	200,000 sq. ft. exhibit space; 47 meeting rooms of over 100,000 sq. ft.	++	++	++
30	Waikiki	3.7 million annual visitors; 19,720 residents.	0	0	++
31	Kapahulu/Diamond Head	19,419 residents in 2000	0	0	+
32	Ala Wai Golf Course	200,000 rounds/year	0	0	+
33	Honolulu Zoo	700,000 attendees/year	0	0	++
34	Kapiolani Park	155 acres	0	0	++
35	McCully/Moiliili	26,122 residents in 2000	0	0	++
36	University of Hawaii at Manoa	19,000 students	0	0	+
37	Tokai University Pacific Center	-----	0	0	+
38	Hilton Hawaiian Village	22 acs; 2,545 rooms; 1,900+ employees	0	0	++
39	Hale Koa Hotel, Fort DeRussy	72 acs; 817 rooms; 900+ employees	0	0	++
40	Royal Hawaiian Shopping Center	6.5 acs; 279,000 sq. ft. GLA; 1,500+ employees	0	0	++
41	Aloha Tower Marketplace / Maritime Center	22 acres	0	0	++
42	Kakaako Waterfront Park	30 acres	0	0	++
43	McKinley High School	2,000 students	0	0	++

Sources: City Department of Planning and Permitting and Parsons Brinckerhoff, September 2002.

Notes:
- **++** These activities are located within 1/4-mile of transit centers or BRT transit stops.
- **+** These activities are located within 1/2-mile of transit centers or BRT transit stops.
- **0** These activities are not served by transit centers or BRT transit stops. Where an activity has more than one location, at least one location is served but not necessarily all locations, treatments, and other ground level elements.

sq. ft. = square feet

GLA = gross leaseable area

and mixed-uses, has been shown to encourage the development community to invest along the transit spine in other cities. This assessment of the relationship between transit investments and development responses is consistent with the views of a panel of land use/transportation planners and developers from other parts of the United States and Honolulu that was convened for this project in July 1999.

The land use panel concluded that transit-oriented development in the urban core would not likely happen without a major investment in a permanent fixed transit system. The land use panel indicated that the urban core has available land for development or redevelopment despite a relatively high urbanization level. The panel suggested that appropriate implementation tools be established that encourage development in the PUC and discourage or prohibit development where it is not desired, such as on agricultural land and open space.

Finally, the land use panel noted that many conditions to spur transit-oriented development are in place in Honolulu and a fixed transit corridor could facilitate the City and County's land use vision of greater mixed-use densities in certain parts of the city. This conclusion was conditioned upon a comprehensive transit/land use implementation strategy developed and managed by a strong land development implementation body. For example, the land use panel pointed out that facilitating development along a transit corridor would require consolidating numerous small tracts of land to allow for higher density land uses. According to transit-oriented development experts Michael Bernick and Robert Cervero in Transit Villages in the 21st Century, 1997, "If developers face the prospect of negotiating individual land purchases among multiple land owners, any one of whom can renege and doom a project, little is likely to happen. The risks and uncertainties are just too great."

The areas along the transit corridor where transit-oriented redevelopment appear to have the greatest potential because of ownership patterns are in Kakaako and Iwilei. The Hawaii Community Development Authority (HCDA) plans and regulates Kakaako land use (see Section 3.1) and the Housing and Community Development Corporation of Hawaii (HCDCH), a State agency, is planning the redevelopment of a portion of Iwilei. Other parts of the corridor as indicated below have the potential for limited transit-oriented redevelopment with some land consolidation:

- Joint use commercial/retail with the proposed transit center at Middle Street;
- Kapalama Canal area between Dillingham Boulevard and King Street for medium density residences (see Figure 5.1-1);
- Kapiolani Boulevard at Keeaumoku Street, an area that includes the Sheridan Street Superblock (see Figure 5.1-1);
- Area surrounding the Hawaii Convention Center, which has the potential for high-rise mixed uses;
- University Avenue at King Street area, which is planned for University-oriented mixed residential and retail use; and
- Lewers Street area in Waikiki, which is being planned for hotel and commercial development.

3) Consistency with Land Use Plans and Policies

All of the alternatives would be consistent with the plans and policies of the State of Hawaii and the City and County of Honolulu. The alternatives would also be consistent with relevant plans regarding transportation, recreation, educational institutions, military installations, and major private sector developments. Table 5.1-2 provides a summary of the project alternatives' consistency with these plans and policies. Further discussion is provided below.

Promenade:
Possibility of mid-rise housing along Kapalama Canal

Mixed Uses
Possibility of residential units atop shops and services along Kapiolani Boulevard and Sheridan Streets

	Land Use Development Possibilities	Figure 5.1-1

TABLE 5.1-2
CONSISTENCY WITH PLANS AND POLICIES

	ALTERNATIVE		
	No-Build	TSM	Refined LPA
State of Hawaii			
Land Use Plans and Controls			
Hawaii State Plan	C	C	C
State Land Use Classifications	C	C	C
State Coastal Zone Management Program	C	C	C
Kakaako Mauka and Makai Area Plans	C	C	C
Aloha Tower Development Plan	C	C	C
Honolulu Waterfront Master Plan	C	C	C
Transportation Plans			
Oahu Commercial Harbors 2020 Master Plan	C	C	C
State Cruise Ship Terminal Needs Assessment	C	C	C
Honolulu International Airport Master Plan	C	C	C
Bike Plan Hawaii	C	C	C
Highways Division Plans and Projects	C	C	C
Recreational Plans			
Statewide Comprehensive Recreational Plan	C	C	C
Educational Institution Plans			
UH-Manoa Long Range Master Plan	C	C	C
Leeward Community College Long Range Plan	C	C	C
UH-West Oahu Campus Master Plan	C	C	C
UH Health and Wellness Center	C	C	C
Military Installation Planning			
Pearl Harbor Naval Complex Master Plan	C	C	C
Ford Island Development	C	C	C
Fort Shafter Complex	C	C	C
Hickam Air Force Base	C	C	C
Armed Forces Rec Center – Fort DeRussy	C	C	C
Kalaeloa (former Barbers Point NAS) Reuse	C	C	C
Fort Armstrong	C	C	C
City and County of Honolulu			
General Plan of the City and County of Honolulu	C	C	C
Development and Sustainable Community Plans	C	C	C
Special Management Area	C	C	C
Honolulu Bicycle Master Plan	C	C	C
Hub-and-Spoke Bus Route Revision Program	C	C	C
Oahu Metropolitan Planning Organization			
Oahu Regional Transportation Plan (TOP 2025)	C	C	C
Private-Sector			
Waikikian Development Plan	C	C	C
Waikiki Beach Walk	C	C	C

Source: Parsons Brinckerhoff, Inc., September 2002.
Key: C: Consistent with Plan/Program

State Plans, Policies and Programs

Hawaii State Plan

All the alternatives would generally be consistent with the objectives and policies of the Hawaii State Plan (June 1991), in particular those relating to public welfare and economic development because of the provision of transportation infrastructure. Even the No-Build alternative, because it includes baseline projects identified in the Oahu Regional Transportation Plan (see Section 2.2.1), would support State Plan objectives and policies relating to public welfare and economic development.

State Land Use Classifications

Transportation improvements under the No-Build, TSM and Refined LPA Alternatives would be consistent with the State "Urban" classification, which predominates the primary transportation corridor. Under the Refined LPA, the proposed North-South Road park-and-ride facility in Ewa is on "Agriculture" classified land. However, much of the Ewa area is classified "Urban", even in undeveloped areas, and those areas still classified "Agriculture" would likely soon be reclassified "Urban" in the near future because they are being planned for urban uses, such the UH West Oahu site.

Coastal Zone Management Program

The following describes the project's consistency with the objectives and policies of the State's Coastal Zone Management (CZM) Program. The Department of Business, Economic Development and Tourism (DBEDT), the agency administering the State's CZM program, concurred with DTS's CZM consistency determination (see Appendix A).

Recreation Resources
None of the alternatives would adversely affect use of any park or recreational resource. See Section 5.11 for further information.

Historic Resources
Although no historic-period resource would be directly affected by any of the alternatives, the project's Memorandum of Agreement (MOA) will specify consultation with the State Historic Preservation Division and other interested parties on the design of the In-Town BRT stops that may affect the visual integrity of certain historic properties. Also, construction of the In-Town BRT along certain segments may uncover archaeological resources and possibly human burials of native Hawaiians. The MOA, therefore, provides a monitoring plan. See Section 5.10 for further information.

Scenic And Open Space Resources
Since the primary elements of the TSM and Refined LPA Alternatives involve vehicles, such as buses and In-Town BRT vehicles, adverse impacts to important visual resources are not expected. Some of the In-Town BRT stops would be located in areas with high visual or aesthetic value. Therefore, they will be designed to blend in with their environment. See Section 5.4 for further information.

Coastal Ecosystems
None of the alternatives would be located in the Shoreline Setback Area or the Special Management Area. Therefore, impacts to coastal ecosystems are not anticipated. See Section 5.7 for further information.

Economic Uses
None of the alternatives would adversely affect coastal dependent economic activities. The Refined LPA in particular, will extend the In-Town BRT system into Waikiki, the State's premier visitor resort.

Coastal Hazards
None of the alternatives would be located along the shoreline. Therefore, exposure to coastal hazards would not occur.

Managing Development
Certain elements of the alternatives will require State and County permits that include provisions for public participation and the protection of coastal resources.

Public Participation
The Primary Corridor Transportation Project has conducted wide-ranging and extensive public involvement. Appendix A contains a description of the project's public involvement activities.

Beach Protection
None of the alternatives will affect coastal erosion because no project element will be adjacent to or abut the shoreline.

Marine Resources
None of the alternatives will affect marine or coastal resources because no project element will be adjacent to or abut the shoreline.

Kakaako Mauka and Makai Area Plans

None of the alternatives will adversely affect Hawaii Community Development Authority development plans for the Kakaako Special District, which are intended to make Kakaako into a major activity node for residential, industrial, office, maritime and other land uses. The In-Town BRT will traverse both Kakaako Mauka and Makai, and therefore will support and benefit the type of mixed-used development envisioned for these areas. See Section 5.1.4 for additional discussion on the land use impacts of the In-Town BRT in Kakaako.

Aloha Tower Development Plan

None of the alternatives will adversely affect the State's Aloha Tower Development Corporation (ATDC) redevelopment plans for the Aloha Tower area, Piers 5 to 14, which will include maritime facilities, restaurants, retail shops, offices, a hotel, and residential condominiums. The In-Town BRT will serve the existing Aloha Tower Marketplace, and therefore, will support other future development. See Section 5.1.4 for additional discussion on the land use impacts of the In-Town BRT at Aloha Tower.

Honolulu Waterfront Master Plan

None of the alternatives will adversely affect the State's plans for the Honolulu Waterfront, an area encompassing approximately 1,550 acres adjoining Honolulu Harbor. These plans were detailed in the 1989 Honolulu Waterfront Master Plan Final Report. The Oahu Commercial Harbors 2020 Master Plan (OCHMP) has updated portions of this plan (see below).

Oahu Commercial Harbors 2020 Master Plan

None of the alternatives will adversely affect the Hawaii Department of Transportation (HDOT), Harbors Division long-range plan for its land holdings at Honolulu Harbor. The OCHMP addressed issues and needs relating to the maritime industry exclusively, such as cargo and passenger movements and fishing.

State Cruise Ship Terminal Needs Assessment

The HDOT Harbors Division study recommended a cruise ship terminal at Pier 2 in Honolulu Harbor, and development of interim cruise ship facilities at Piers 19 and 20. None of the alternatives will adversely affect these plans. The Kakaako Makai Branch of the In-Town BRT would be in proximity to the future Pier 2 cruise ship terminal.

Honolulu International Airport Master Plan

None of the alternatives will adversely affect the HDOT Airports Division development plans for Honolulu International Airport.

Bike Plan Hawaii

Discussion of project consistency with Bike Plan Hawaii is provided in Section 4.7.2.

HDOT Highways Division Plans and Projects

The Refined LPA will be consistent with the HDOT Highways Division improvement plan known as Ala Moana Boulevard Improvements: Atkinson Drive to Kalakaua Avenue. The project involves landscaping to improve the pedestrian environment. The proposed transit and pedestrian oriented improvements can be designed to be consistent with one another.

HDOT Highways Division has an ongoing program to restore the concrete bridge deck on the Pearl City viaduct of the H-1 Freeway. The Regional BRT improvements include replacement of the existing permanent median barrier with a movable one. The movable barrier will be lighter weight than the fixed barrier. Implementing the BRT improvements will be coordinated with the maintenance/rehabilitation program for the Pearl City viaduct to ensure consistency with the State's ongoing program for this facility.

Close coordination between the affected State agencies and the DTS will continue so that the Refined LPA maximizes compatibility with the State's plans and programs for the surrounding area.

Statewide Comprehensive Recreational Plan

None of the alternatives will adversely affect State Parks Division's plans for developing and operating recreational facilities in the State. See Section 5.11 for additional information on potential impacts to parks and recreational facilities.

UH- Manoa Master Plan

None of the alternatives will adversely affect the University of Hawaii's facility plans for its Manoa campus. An important element of the UH-Manoa plan is to enhance the "sense of place" on the campus by locating both pedestrian and vehicular gateways at key access points to campus. Although the In-Town BRT UH-Manoa Stop will be located at Sinclair Circle, it will have no adverse effect on projects designed to enhance the "sense of place".

Leeward Community College Long Range Plan

None of the alternatives will adversely affect the University of Hawaii's facilities plans for its Leeward Community College. For example, the Regional BRT will not affect plans to provide additional access to and from the campus.

UH-West Oahu

None of the alternatives will adversely affect the University of Hawaii's plans to develop a new campus in Ewa, the UH- West Oahu campus. The North-South Road park-and-ride facility under the Refined LPA will be located near the proposed campus site.

UH Health and Wellness Center

None of the alternatives will adversely affect the University of Hawaii's plans to develop a UH Health and Wellness Center, which would also be the new campus for the UH John A. Burns School of Medicine, in Kakaako Makai. The In-Town BRT will traverse Kakaako Makai, and therefore will support the transportation needs of the facility. See Section 5.1.4 for additional discussion on the land use impacts of the In-Town BRT in Kakaako Makai.

Military Installation Planning

Pearl Harbor Naval Complex Master Plan

None of the alternatives will adversely affect the Department of the Navy facility plans for the Pearl Harbor Naval Complex, which includes redevelopment of Ford Island (see below).

Ford Island Development

None of the alternatives will adversely affect the Department of the Navy plans to provide military personnel and family housing, administrative and training facilities, and supporting infrastructure on Ford Island. The only element of the alternatives near Ford Island is the Aloha Stadium Transit Center/Park-and-Ride, which would be located at the overflow parking lot of the stadium. This facility will not be on Navy property, and therefore, will not influence the scope and schedule of the Ford Island development program. Indirect impacts may occur since traffic relating to the transit center and traffic from higher future Ford Island resident and worker populations would use the Kamehameha Highway / Salt Lake Boulevard (Koko Head-bound) intersection. On the other hand, the transit center's proximity to Ford Island would improve transit service for the workers and residents of the island.

Fort Shafter Complex

None of the alternatives will adversely affect the U.S. Army's facility plans for Fort Shafter.

Armed Forces Recreation Center – Fort DeRussy

None of the alternatives will adversely affect the U.S. Army's master and recreational planning of Fort DeRussy in Waikiki. Recent improvements to the installation have included extensive landscaping, a second tower to the Hale Koa Hotel, a 1,300-stall hotel parking structure, and realignment and widening of Kalia Road. The In-Town BRT will traverse Fort DeRussy on Kalia Road, and will require widening of Kalia Road, which will displace some landscaping and a few parking spaces (see Section 5.2.2 for additional information). Despite these impacts, none of the installation's recreational facilities will be affected.

Hickam Air Force Base

None of the alternatives will affect the U.S. Air Force's facility plans for Hickam Air Force Base.

Kalaeloa (former Barbers Point Naval Air Station) Reuse

Despite not technically being a military installation plan, none of the alternatives will nevertheless affect redevelopment of the former Naval installation, which may include developing a general aviation airport and Department of Hawaiian Home Lands use.

Fort Armstrong

Similar to Kalaeloa, Fort Armstrong is also a former military installation located at Piers 1 and 2 in Kakaako Makai. None of the alternatives will adversely affect future facilities, which would include continuing maritime break-bulk and limited container cargo operations at Pier 1, and a cruise ship terminal at Pier 2.

City and County of Honolulu Plans, Policies and Controls

General Plan

Since the automobile was introduced in Hawaii early in the 1900s, development of Oahu evolved from that of an ahupuaa (land division extending from uplands to sea used by pre-contact Hawaiians) system to one that was based on plantation agriculture and the port of Honolulu (Honolulu Harbor). Current land use patterns are largely based on the needs of the automobile, with resultant pressure to suburbanize peripheral agricultural and open space lands. As in much of the United States, Oahu's suburbs, such as those in Central and Leeward Oahu, have an imbalance of houses compared to jobs that results in traffic congestion along major transportation corridors as large numbers of workers commute to Honolulu's central business district and other employment centers, such as Waikiki.

The City and County of Honolulu General Plan provides goals and objectives to guide future growth, addressing key issues, such as population, economic activity, housing, and utilities. These four areas are very influential in the direction and rate of future growth. As a matter of General Plan policy, future growth is directed to where residential and employment uses would occur in conjunction with transportation access and circulation. The General Plan also "address[es] the need for a balanced system for the pedestrian, bikeway, public transportation, and automobile". It also calls for a variety of attractive and convenient travel modes, including "public transportation-for travel to and from work…through a mass transit system including exclusive right-of-way rapid transit and feeder-bus components…"

The No-Build Alternative does not support General Plan policies because it does nothing to address the key issues relating to helping direct population distribution, economic activity, housing, and utilities. The TSM Alternative somewhat supports the General Plan population distribution policies, but does not support the orderly economic growth and transportation policies.

The Refined LPA supports the General Plan policies and guidelines because all the elements of this alternative provide a more balanced transportation system than either the No-Build or TSM Alternatives. It supports the transportation-related objectives of the plan. In addition, it will also use the transportation investment of this alternative to facilitate transit-oriented development in the urban core. Along with other supportive policies, the Refined LPA is consistent with the City's organizing principles relating to land use and economic growth.

Development and Sustainable Community Plans

Not only is transportation important for the efficient movement of people and goods, but it is also integral to the quality of life of residents. Spending less time traveling means more time for recreation or other enjoyable activities. Transportation should, therefore, be tightly integrated with land use management controls and policies. The corridor spans three different planning areas (Ewa, Central Oahu and PUC) as designated by

the City and is, therefore, influenced by different transportation policies as stated in the development or sustainable community plan of the respective planning area. Recognizing that each planning area has a unique piece of the transportation corridor, it is necessary to review these policies as they have been outlined in their individual development plans.

The Ewa Development Plan was updated and adopted in 1997. Since the Central Oahu Sustainable Community Plan and the PUC Development Plan are currently being updated or adopted, existing and proposed policies are analyzed. Table 5.1-3 summarizes the consistency of the alternatives with policies and guidelines contained in the Ewa, Central Oahu and PUC Development/Sustainable Community Plans (present Ewa Plan and present and proposed Central Oahu and PUC Plans).

TABLE 5.1-3
RELATIONSHIP OF ALTERNATIVES TO PRESENT AND PROPOSED DEVELOPMENT OR SUSTAINABLE COMMUNITY PLAN POLICIES AND GUIDELINES

	Alternative		
Development or Sustainable Community Plan	**No-Build**	**TSM**	**Refined LPA**
Ewa	O	O	XX
Central Oahu (Present)	O	X	XX
Central Oahu (Proposed)	O	O	XX
Primary Urban Center (Present)	O	O	XX
Primary Urban Center (Proposed)	O	O	XX

Sources: Helber Hastert & Fee Planners, Inc.; Plan Pacific, Inc., April 20, 1999.
Notes: XX Highly Consistent with Policy
X Consistent with Policy
O Weak or Poorly Defined Relationship to Policy

As indicated on Table 5.1-3, the No-Build and TSM Alternatives would be inconsistent with current and proposed growth policies of the development and sustainable community plans, particularly proposed land use policies to encourage higher densities in the urban core and discourage development on agricultural and open space lands elsewhere on the island. These alternatives would not relieve pressure to urbanize outlying agricultural lands, leading to higher transportation costs and limited choices of urban lifestyles.

Implementing the Refined LPA will result in an increase in people-carrying capacity and transit service particularly in the PUC, which will provide incentives for transit-oriented development if other supportive polices are implemented. Transit-oriented development, which consists of a mix of residential and commercial uses in a pedestrian friendly environment, are envisioned in the proposed updated PUC Development Plan (May 2002) along the In-Town BRT alignment, such as in Kakaako.

In summary, the No-Build and TSM Alternatives would fail to address the proposed land use and economic development policies to encourage greater densities in the urban core because neither would provide an attractive and convenient travel mode for PUC residents. In addition, neither alternative would address the General Plan goal of limiting suburban development of agricultural and open space lands. The panel of experts assembled to review the proposed alternatives and evaluate their transit-oriented development potential echoed these findings.

Special Management Area

Segments of the In-Town BRT in Kakaako Makai, along Ala Moana Boulevard and in Waikiki will be within the Special Management Area (SMA). Normally, work on existing right-of-way is not considered “development”, the standard in which a SMA use permit is needed. It may be likely that pavement work for the In-Town BRT would not be considered “development”, but a transit stop, even if located on existing right-of-way, would be considered a “development”. Assuming that transit stops and Traction Power Supply Station (TPSS) would

be the only elements of the In-Town BRT that would be a "development", a major SMA use permit would be required if the affected transit stop or TPSS in the SMA has a capital cost of over $125,000. Major SMA use permits require approval by the City Council, but minor SMA use permits may be granted by the Director of the City Department of Planning and Permitting.

Developing the In-Town BRT will be consistent with the SMA program because it will not adversely affect access to and along the shoreline, and viewsheds to, from and along the shoreline. To the contrary, the Refined LPA will improve access to the shoreline in some areas. It will not introduce structures that would affect beach processes or present hazards along the shoreline.

Honolulu Bicycle Master Plan

Discussion of project consistency with the Honolulu Bicycle Master Plan is provided in Section 4.7.2.

Hub-and-Spoke Bus Route Revision Program

None of the alternatives will adversely affect the DTS's program to convert existing City bus routes from a predominately radial network to a hub-and-spoke configuration. All three alternatives assume converting to hub-and-spoke routes. See Section 4.3 for the discussion on transit service impacts.

Oahu Metropolitan Planning Organization

None of the alternatives will adversely affect the Oahu Metropolitan Planning Organization's Transportation for Oahu Plan 2025 (TOP 2025), adopted in April 2001. The No-Build Alternative includes the baseline highway network of the TOP 2025. The TSM Alternative includes the highway network plus improvements to the bus transit system. The baseline highway network as well as the In-Town and Regional BRT are included in the TOP 2025 Plan.

Private-Sector Plans

Waikikian Development Plan

None of the alternatives will adversely affect Hilton Hotels Corporation's plan to replace the former Waikikian Hotel with a new 350-room hotel building. The In-Town BRT will be adjacent to the Hilton Hawaiian Village on Ala Moana Boulevard and Kalia Road, and therefore will serve the transit needs of the hotel and planned development. See Section 5.1.4 for additional discussion on the land use impacts of the In-Town BRT in Waikiki.

Waikiki Beach Walk

None of the alternatives will adversely affect the Outrigger Enterprises, Inc. plan to redevelop its landholdings along Lewers Street, Kalia Road, Beach Walk and Saratoga Road. The In-Town BRT will be adjacent to the development on Kalia and Saratoga Roads, and therefore will serve the transit needs of the development. See Section 5.1.4 for additional discussion on the land use impacts of the In-Town BRT in Waikiki.

5.1.4 Transit Center and Transit Stop Area Impacts

Future development of the area surrounding transit centers and transit stops would be guided and affected by existing and proposed land uses and regulations. The policies guiding growth, particularly those General Plan and Development or Sustainable Community Plan policies discussed in Section 3.1 and Section 5.1.3, support transit-oriented development. Other factors that affect transit center and transit stop area land uses

include the availability of land for development, zoning, existing land uses, and market conditions. A transit stop's land use development influence, as experienced in other cities, is generally concentrated within a quarter-mile of the stop. This distance coincides with the maximum distance that most people would walk to-and-from a transit stop. It also has been found that transit stops located within commercially designated areas support higher density land development and redevelopment than those in low-density residential areas. The influences of land use policies were based on the Ewa Development Plan, and drafts of the Central Oahu Sustainable Community Plan and the PUC Development Plan.

It should be noted that, compared with existing bus stops, the transit stops associated with the In-Town BRT will have more extensive improvements, providing a greater sense of permanence. Curbside as well as median transit stops will have increased amenities including raised platforms, enhanced shelters, seating and landscaping. Well-marked, signal controlled pedestrian crosswalks will be used at all median transit stops. In addition, sheltered waiting areas, seats, lighting and safety railings will be provided so that transit patrons can wait in safety and comfort. Figure 2.2-4 shows typical median and curbside transit stops for the In-Town BRT.

Table 5.1-4 provides a comparison of the general land use impacts anticipated among the No-Build and TSM Alternatives and the Refined LPA.

1) Regional Facilities

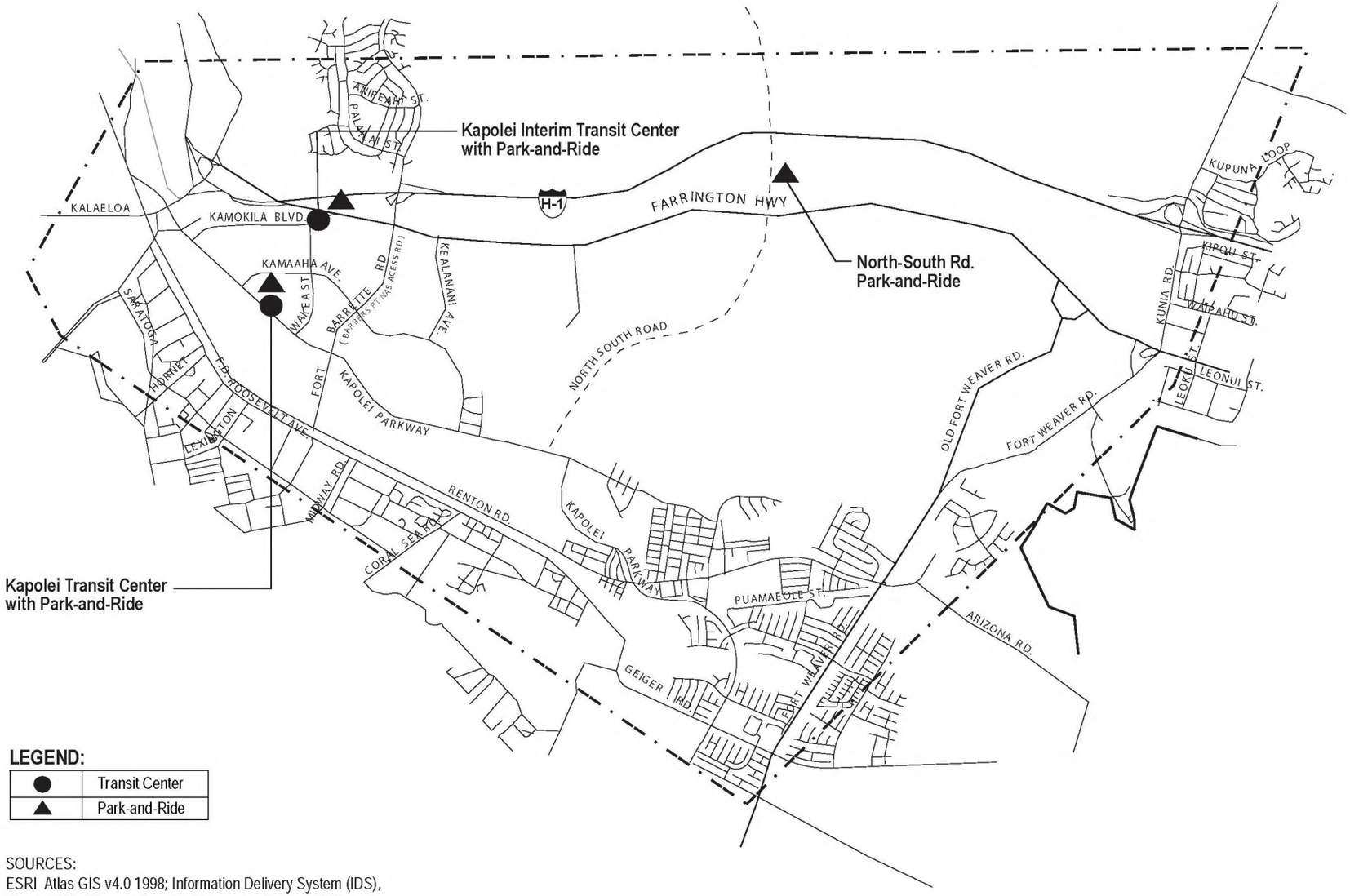
As shown in Table 5.1-4, the Kapolei Transit Center and the North-South Road park-and-ride facility will be constructed under the No-Build and TSM Alternatives and the Refined LPA. Figure 5.1-2 shows the general location of the proposed Kapolei Transit Center and North-South Road Park-and-Ride. Also included in Table 5.1-4 are transit centers that are included in the Oahu Transportation Improvement Program (OTIP), FY 2002-2004 as part of the conversion of the network to a hub-and-spoke configuration. The OTIP transit centers include: Aloha Stadium, Middle Street, Iwilei, Pearl City/Aiea, Wahiawa Town, Mililani Town, Kailua, and Kaneohe. Figure 5.1-3 shows the general location of the Pearl City/Aiea transit center.

Kapolei Transit Center/Park-and-Ride

With the No-Build and TSM Alternatives and the Refined LPA, a new transit center and park-and-ride facility in the growing City of Kapolei could help foster development of parcels in and around this transit-related site. For example, pedestrian activity within and around the transit center could encourage retail stores and eating establishments to locate near the center. In addition, the transit center could encourage other commercial investment or services, such as childcare. The connection between Kapolei and the Honolulu urban core, as discussed in Section 1.1, is necessary to encourage coordinated growth. The City is planning to open an interim or temporary transit center with a park-and-ride lot at a vacant parcel near the new City police station. As Kapolei grows, the transit center would be relocated to a location nearer the city center.

North-South Road Park-and-Ride

The North-South Road Park-and-Ride, which will be located along the future North-South Road between Farrington Highway and the H-1 Freeway, is proposed under the No-Build and TSM Alternatives and the Refined LPA. This proposed site also allows using the future North-South Road Interchange with the H-1 Freeway for bus access. The growing Ewa residential communities need a park-and-ride facility so that current and new residents are encouraged to use transit instead of private automobiles for commuting. The park-and-ride facility will support land use plans and policies of this growth area. The site of the proposed park-and-ride facility will displace existing agricultural land. Since the surrounding land will remain agriculture, the land uses surrounding the facility will not change unless zoning is changed to urban designations. If that were to occur, the park-and-ride facility could influence the development that occurs. For example, the UH Board of Regents has recently approved the area makai of the park-and-ride as the site for UH-West Oahu.



LEGEND:

●	Transit Center
▲	Park-and-Ride

SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

N

Scale: 0 .25 .50 mi

Transit Center/Park-and-Ride Locations: Kapolei - Ewa/Waipahu

Figure 5.1-2

TABLE 5.1-4
POTENTIAL FOR TRANSIT-ORIENTED DEVELOPMENT

	Alternatives		
Transit Facility	**No-Build**	**TSM**	**REFINED LPA**
Regional Facilities			
Kapolei Transit Center/Park-and-Ride	XX	XX	XX
North-South Road Park-and-Ride	X	X	X
Aloha Stadium Transit Center/Park-and-Ride	X	X	X
Middle Street Transit Center/Park-and-Ride	X	X	X
Pearl City/Aiea Transit Center	X	X	X
Wahiawa Town Transit Center	X	X	X
Mililani Town Transit Center	X	X	X
Kailua Transit Center	X	X	X
Kaneohe Transit Center/Park-and-Ride	X	X	X
In-Town Facilities			
Middle Street to Iwilei Segment			
Middle Street Transit Center/Park-and-Ride	-	X	X
Kalihi Stop	-	-	X
Honolulu Community College Stop	-	-	X
Waikiki Branch			
Iwilei Transit Center	X	X	XX
Chinatown Stop	-	-	X
Union Mall Stop	-	-	X
Aloha Tower Stop	-	-	X
Fort Armstrong Stop	-	-	XX
Coral Stop	-	-	XX
Kewalo Basin Stop	-	-	XX
Kamakee Stop	-	-	XX
Ala Moana Park Stop	-	-	X
Hobron Stop	-	-	XX
Ft. DeRussy Stop	-	-	X
Saratoga Stop	-	-	XX
Kalakaua/Seaside Stop	-	-	X
Kalakaua/Uluniu Stop	-	-	X
Kapahulu Stop	-	-	X
Kuhio/Liliuokalani Stop	-	-	X
Kuhio/Seaside Stop	-	-	X
UH-Manoa Branch			
Iolani Palace Stop	-	-	X
Alapai Transit Center	X	X	X
Thomas Square/NBC Stop	-	-	X
King/Pensacola Stop	-	-	X
Pensacola/Kapiolani Stop			XX
Ala Moana/Keeaumoku Stop	-	-	XX
Convention Center Stop	-	-	X
Isenberg Stop	-	-	X
University/King Stop	-	-	XX
UH-Manoa (Sinclair Circle) Stop	-	-	X
Kakaako Mauka Branch			
Bishop Stop	-	-	X
Alakea Stop	-	-	X
Halekauwila Stop	-	-	XX
Cooke Stop	-	-	XX

Sources: Helber Hastert & Fee Planners, Inc.; Plan Pacific, Inc.; Parsons Brinckerhoff, Inc., September 2002
Notes:
X May support transit-oriented development if other factors are present
XX Support transit-oriented development
- No Transit Center or Stop at this location

Aloha Stadium Transit Center/Park-and-Ride

A regional transit center at the Aloha Stadium overflow parking lot along Kamehameha Highway is included under the No-Build and TSM Alternatives and the Refined LPA (see Table 5.1-4). Unlike the Kapolei Transit Center, the Aloha Stadium Transit Center is not expected to induce land use changes in the area surrounding the site because much of the surrounding area is occupied by the stadium and its parking, and a U.S. military base (Pearl Harbor). The remainder of the surrounding land uses consists of residential neighborhoods of single-family and medium-density dwellings and two shopping centers about a half-mile away. Therefore, there are no developable lands adjacent to the proposed transit center, unless zoning changes are made and the community is supportive of higher-densities and/or land use changes.

2) In-Town Facilities

Three transit centers, 31 transit stops, and one park-and-ride facility are planned for urban Honolulu from Middle Street to the University of Hawaii at Manoa and Waikiki for the In-Town BRT element of the Refined LPA (see Table 5.1-4). The Alapai and Iwilei Transit Centers are included in all alternatives. The Middle Street Transit Center/Park-and-Ride is planned for the TSM Alternative and the Refined LPA.

As shown on Table 5.1-4, the Refined LPA provides an In-Town BRT system that will include dedicated transit lanes, transit centers and transit stops that will be permanent facilities. Such facilities have the potential to facilitate transit-oriented development patterns. For example, as discussed in Section 1.1, the draft update of the PUC Development Plan calls for pedestrian-scale development with convenient walking access to transit. The land uses surrounding Dillingham Boulevard, Iwilei, Kakaako, Convention Center, Kapiolani Boulevard, and some Waikiki sites would be, to varying degrees, influenced by the presence of transit-related facilities and would support a pedestrian-scale environment. Although it is unlikely other parts of the city would see dramatic land use changes because of certain constraints such as ownership patterns, their urban environment would nevertheless become more pedestrian oriented, which could support certain establishments or lifestyles. The parts of Honolulu in which substantial land use changes resulting from the project would not be expected, but would nevertheless see their pedestrian environment enhanced by the In-Town BRT are the Middle Street business area, Chinatown, Neal Blaisdell Center near Thomas Square, and certain areas within Waikiki that have been fully developed under current City land use policies.

The following discusses in more detail some of the areas around the transit centers and transit stops.

Middle Street to Iwilei Segment

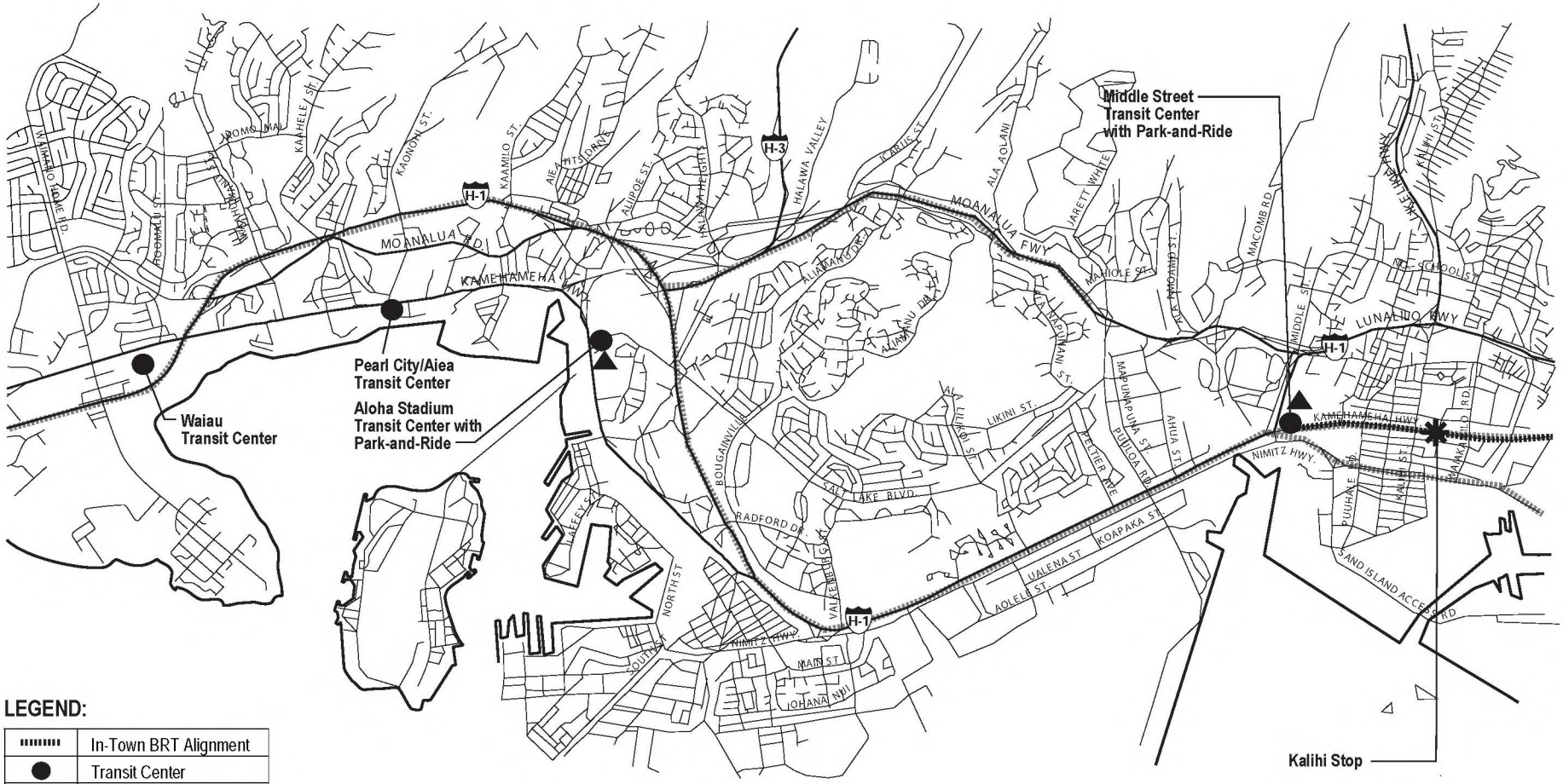
There is one transit center and two transit stops planned for the area between Middle Street and Iwilei (see Table 5.1-4). See Figures 5.1-3 and 5.1-4 for general locations.

Middle Street Transit Center/Park-and-Ride Facility

The Middle Street Transit Center/Park-and-Ride site (a separate DTS project) is currently surrounded by industrial and commercial uses on three sides, and military uses on one (Ewa) side. The City is not planning to change these uses, and will probably maintain current zoning. Therefore, the transit center/park-and-ride facility is not expected to change or intensify surrounding land uses, except at the site itself, where as part of the project, joint-use transit oriented retail/commercial establishments will be developed.

Kalihi and Honolulu Community College (HCC) Transit Stops

The Kalihi Transit Stop will support Dillingham Boulevard commercial establishments and serve area residents. While many of the businesses and residences are on small lots, which limits redevelopment



LEGEND:

▪▪▪▪▪▪▪▪	In-Town BRT Alignment
●	Transit Center
✱	Transit Stop
▲	Park-and-Ride

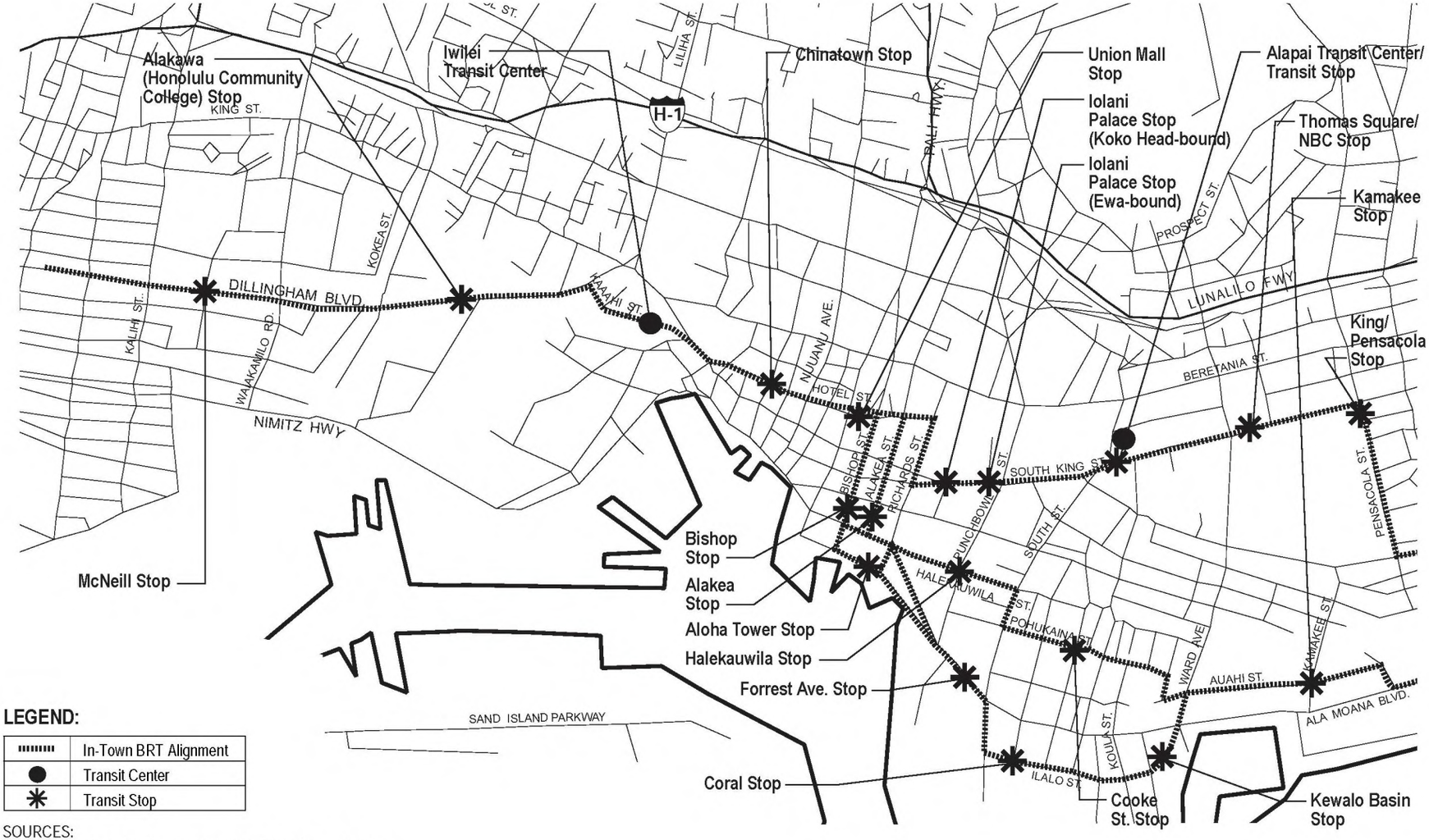
SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

N

Scale: 0 .25 .50 mi

Transit Center/Transit Stop/Park-and-Ride Locations: Pearl City - Aiea - Kalihi

Figure 5.1-3



LEGEND:

▪▪▪▪▪▪▪▪	In-Town BRT Alignment
●	Transit Center
✱	Transit Stop

SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

N

Scale: 0 .375 .75 mi

Transit Center/Transit Stop Locations: Kalihi - Downtown - Kakaako

Figure 5.1-4

potential if there is no consolidation of small parcels, the commercial areas would likely experience some redevelopment to be compatible with increased pedestrian activities because of the presence of a transit stop.

The HCC Transit Stop is not expected to cause substantial land use changes because the surrounding environment is already built-up. However, it will serve HCC employees and the student population plus employees in the surrounding industrial and commercial area.

Waikiki Branch

One transit center and 16 transit stops are planned for the In-Town BRT, Waikiki Branch (see Table 5.1-4). The facilities' general locations are shown on Figures 5.1-4 and 5.1-5.

Iwilei Transit Center

Since the Iwilei Transit Center (a separate DTS project) will be planned along with a larger HCDCH/DAGS mixed-use senior housing complex. However, due to lack of funding at this time, the mixed-use development is not a committed project.

Chinatown and Union Mall Transit Stops

The In-Town BRT stops in Chinatown and Downtown are not expected to influence major land use changes or intensification because the area is already highly developed. However, the transit stops will provide improved transit service to employees, residents, and visitors in a manner similar to how Hotel Street is currently used as a bus-only facility, with a high degree of pedestrian activity on both sides of the street.

Aloha Tower Transit Stop

The Aloha Tower Transit Stop will be located next to Aloha Tower Marketplace and the Hawaii Maritime Museum. The transit stop will make Aloha Tower Marketplace, Hawaii Maritime Museum and surrounding areas more readily accessible, and therefore, could generate greater business activity. Business conditions will need to improve however, at Aloha Tower Marketplace before additional retail, hotel, passenger cruise ship facilities and entertainment uses are added.

Fort Armstrong, Coral and Kewalo Basin Transit Stops

The Fort Armstrong Transit Stop will be located on Ala Moana Boulevard in proximity to the U.S. Immigration Office and the Kakaako Pumping Station, two properties listed on the National Register of Historic Places. Real estate for the transit stop will not be taken from these properties, nor would the stop affect the view of these properties from Ala Moana Boulevard. The transit stop will support and may encourage future commercial land uses in Kakaako Makai, which are being planned by the Hawaii Community Development Authority.

The Coral Transit Stop will be located next to the Makai Gateway and the Kakaako Waterfront Parks, which feature cultural and recreational facilities. It will also be in proximity to the proposed biotech facilities and University of Hawaii School of Medicine. The stop will not change existing and planned land uses, but it could encourage growth of commercial activities on the mauka side of Ilalo Street.

The Kewalo Basin Transit Stop will be located near a restaurant and maritime fishing operations. A complex of shops, restaurants, and entertainment facilities are planned for Kewalo Basin, with or without the In-Town

BRT. However, this transit stop will provide convenient access to these activities, as well as the Children's Discovery Center and nearby marine research facilities.

Kamakee Transit Stop and Ala Moana Park Transit Stop

The Kamakee Transit Stop is within Victoria Ward Centers, a major commercial district that includes movie theaters, restaurants, and small to large retail establishments. The new owner/developer is planning to continue enlarging this already successful commercial district. Therefore, land use intensification in the Kamakee Stop vicinity would occur with or without the In-Town BRT.

The stop at Ala Moana Regional Park is surrounded by a major recreational resource on one side and a major commercial shopping center on the other. Therefore, this stop will not lead to any changes in land uses in the general vicinity.

Hobron, Ft. DeRussy, Saratoga, Kalakaua/Seaside, Kalakaua/Uluniu, Kapahulu, Kuhio/Liliuokalani and Kuhio/Seaside Transit Stops

With few exceptions, the transit stops in Waikiki will not substantially influence land use changes. However, they will support pedestrian-oriented business activities along Ala Moana Boulevard, and Kalakaua and Kuhio Avenues.

Two areas in Waikiki are anticipated to undergo substantial redevelopment: the vacant or low-rise apartment buildings surrounding Hobron Lane and Lipeepee Street, and the blocks bound by Lewers Street, Kalakaua Avenue, Saratoga Road, and Kalia Road.

The Hobron/Lipeepee area is zoned Apartment, although the current PUC Development Plan Land Use Map designates this area for Resort Mixed Use. The proposed Hobron Transit Stop could encourage a zone change that allows hotel and commercial development and/or mixed uses, but the City Council would have to approve any zoning change and would consider many other factors, including public opinion.

The Outrigger Hotel Corporation, which owns or manages several hotels in the Lewers and Saratoga Road area, has plans for redeveloping these blocks, utilizing incentives such as the zoning regulations mentioned in Section 3.1, and local and State tax exemptions for new construction projects. The proposed Saratoga Stop would probably not induce redevelopment by itself, but would be an asset to the redevelopment.

The transit stops at Kalakaua/Seaside Avenues and at Kalakaua/Uluniu Avenues could increase business activity at the street level. The transit stops will reinforce the existing pedestrian-oriented uses. Since Kalakaua Avenue is already highly developed, land use intensification is not expected.

The stop on Kapahulu just mauka of Lemon Road would have no impact on land uses since it is adjacent to Kapiolani Park on the Koko Head side and to high-density hotels on the Ewa side.

Since most of the properties in the Kuhio/Liliuokalani Transit Stop vicinity have been developed to the maximum allowed under current zoning regulations, the present land use patterns are expected for the most part to remain unchanged, with or without the In-Town BRT stop. However, properties mauka of Kuhio Avenue have development potential as they have remained vacant since the early 1990s as a result of unfavorable market conditions for new, high-rise condominium projects. The proximity of the transit stop could make the development of these properties more attractive, but the timing of future development would more likely be influenced by market conditions.

A BRT stop could make the area of Kuhio/Seaside Avenues more attractive for high-rise residential development, especially since the In-Town BRT will help reduce noise levels from diesel buses and otherwise

improve the ambience of Kuhio Avenue. However, like other areas in Waikiki, the BRT stop would not result in a sufficient increase in pedestrian activity at the street level to produce an intensification of land uses on its own.

UH-Manoa Branch

One transit center and nine transit stops are planned for the In-Town BRT, UH-Manoa Branch (see Table 5.1-4). The facilities' general locations are shown on Figures 5.1-4 and 5.1-5.

Iolani Palace Transit Stop and Alapai Transit Center

The Iolani Palace Transit Stop will be located in the Historic Precinct of the Hawaii Capital Special District. It will be designed as a low key facility so as not to detract from the historically important buildings, grounds and circulation patterns in the Precinct. Because the transit stop is located in an important historic district, land use changes would not be expected.

The Alapai Transit Center, located on the mauka side of the Cooke and South King Streets intersection, would remain operational under the No-Build and TSM Alternatives. Under the Refined LPA, the facility's basic function will remain the same. Since the land uses surrounding the transit center include the Capitol District and a relatively built-up urban environment, which includes the main police station, substantial land use changes surrounding the transit center are not expected under the Refined LPA, unless the transit center itself is redeveloped for mixed-use transit/commercial uses.

Thomas Square/NBC, King/Pensacola, Pensacola/Kapiolani, and Ala Moana/Keeaumoku Transit Stops

The areas surrounding the proposed Thomas Square/NBC and King/Pensacola Transit Stops are established with the Honolulu Academy of Arts, Thomas Square, Blaisdell Concert Hall, Hawaiian Electric Company (HECO), Straub Clinic and Hospital, Honolulu Club, Kaiser Honolulu Clinic, and McKinley High School. Since One Archer Lane was developed, parcels for redevelopment are limited. Parcels near South King and Pensacola Streets are relatively small, and without consolidation, redevelopment opportunities in this area would be limited. Therefore, a transit stop will not likely influence land use changes at these locations.

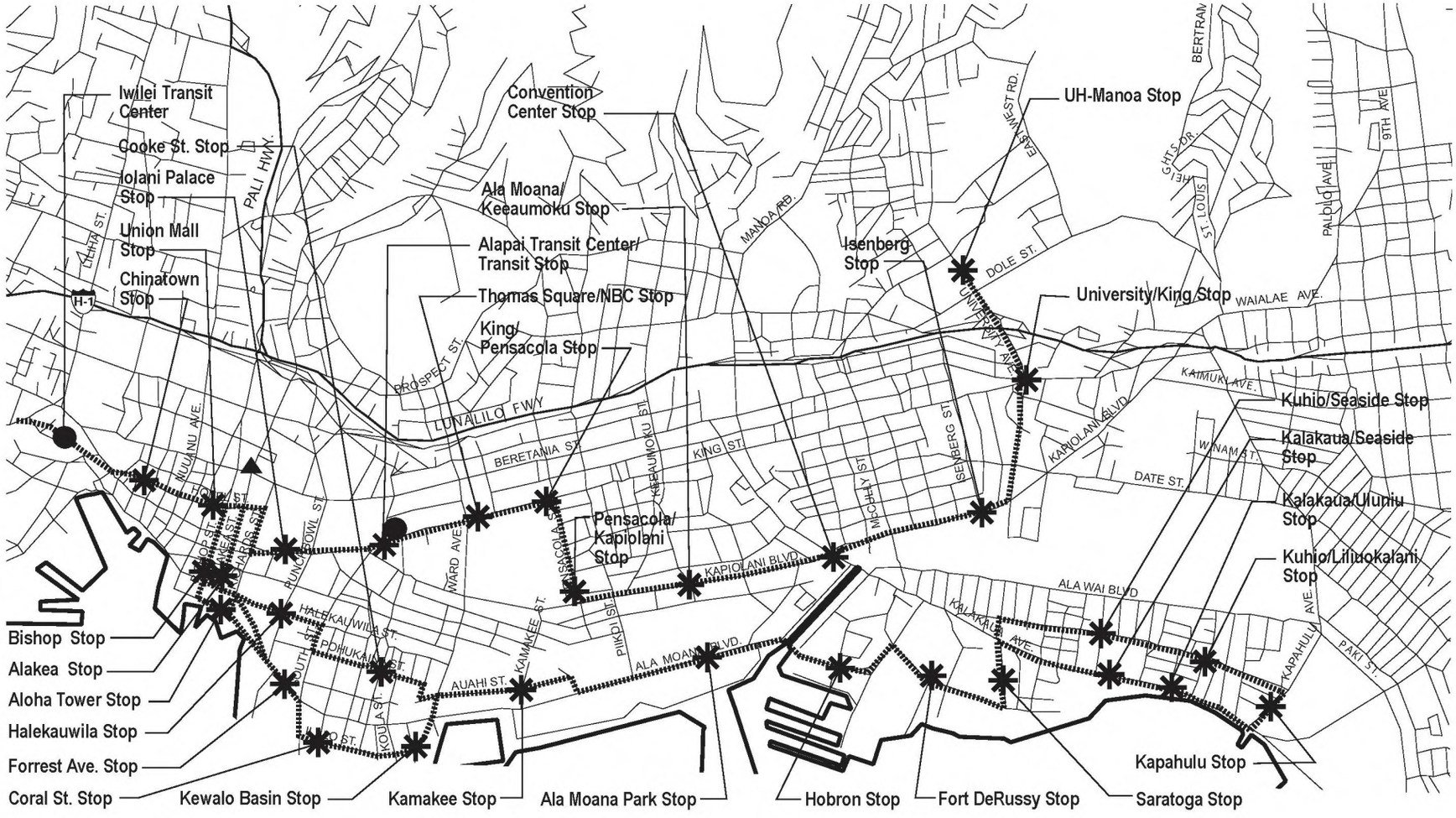
In contrast, the Pensacola/Kapiolani and Ala Moana/Keeaumoku Transit Stops will help foster the intensification of commercial and residential land uses because there are several large vacant parcels that provide excellent development opportunities. The City is also encouraging in-fill development of other vacant and underutilized parcels along Kapiolani Boulevard.

Convention Center Transit Stop

With or without a transit stop, the recently constructed Hawaii Convention Center is expected to encourage redevelopment of the adjacent areas, except the low and medium density residences in the Keheka and McCully/Moiliili neighborhoods. Commercial land uses along Kapiolani Boulevard, Atkinson Drive, and Kalakaua Avenue have the potential to intensify because of the transit stop and the convention center.

Isenberg Transit Stop

The area surrounding the proposed transit stop that will be at the corner of Isenberg Street and Kapiolani Boulevard consists primarily of single-family and multifamily residences in relatively small lots on the mauka side of Kapiolani Boulevard, and high-density apartment buildings on the makai side. Although zoning on the mauka side allows for higher density housing, without consolidating the small residential parcels, major redevelopment of the area is not expected with or without the transit stop. The makai side is already built-up, and is not likely to change as a result of the transit stop.



SOURCES:
ESRI Atlas GIS v4.0 1998; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

LEGEND:

In-Town BRT Alignment		Transit Stop	
Transit Center		Park-and-Ride	

Scale: 0 .25 .50 mi

Transit Center/Transit Stop Locations: Kalihi - UH-Manoa - Waikiki

Figure 5.1-5

University/King and UH-Manoa Transit Stops

Small scale commercial activities surround the proposed transit stop at University Avenue and King Street. It is anticipated that the transit stop would result in increased pedestrian activity and this would in turn result in intensified commercial activity. In addition, the updated draft PUC Development Plan is encouraging higher density residences in the general vicinity of the stop through the conversion and consolidation of smaller lots.

The UH-Manoa (Sinclair Circle) Transit Stop is located within the University of Hawaii campus, adjacent to the Bachman Hall lawn and Sinclair Library. The University is planning to retain the distinct open space and the gateway/entrance to the University, and is, therefore, not planning major land use changes in the area of the stop. However, a small parking structure is planned near Sinclair Circle. Residences, primarily single-family homes on small parcels, near the University would not likely be affected by the transit stop. Although the stop will support the University through improved transit services, it is not expected to influence land use changes.

Kakaako Mauka Branch

Four transit stops are planned for the Kakaako Mauka Branch of the In-Town BRT (see Table 5.1-4). The general locations of these stops are shown in Figure 5.1-5.

Bishop and Alakea Transit Stops

The Bishop and Alakea Transit Stops will be located in the heart of Honolulu's downtown and financial district. Similar to the other stops in Chinatown and Downtown, it is not expected that these stops would influence major land use changes or intensification because the area is already highly developed. However, the transit stops will provide improved transit service to employees, residents, and visitors.

Halekauwila and Cooke Street Transit Stops

The Halekauwila Transit Stop will be adjacent to the State and Federal offices on Punchbowl Street, and along with the Cooke Street Stop, is located in the Kakaako Community Development District. The Kakaako development district provides substantial opportunities for transit-oriented land uses because HCDA is constructing the roadway and utility infrastructure and large land parcels are becoming available for development. HCDA is also encouraging a mix of residential and commercial uses, which is consistent with the transit- and pedestrian-oriented objectives of the project.

5.1.5 Construction Employment Impacts

Substantial economic impacts would result from the Refined LPA compared to the No-Build Alternative. These impacts may be measured by increases in State output/economic activity, employment, and job earnings.

Construction expenditures would occur over the period of construction, directly creating new demand for construction materials and jobs. These direct impacts would lead to indirect or secondary economic impacts, as output from other industries increases to supply the construction industry. The direct and indirect impacts of construction expenditures cause firms in all industries to employ more workers, leading to induced impacts as the additional wages and salaries paid to workers lead to higher consumer spending, creating new demand in many other economic sectors.

1) Methods and Assumptions

Terminology

To analyze the economic impacts of the alternatives, the economic consequences of an increase in the demand for construction goods and services were modeled. Economists use input-output (I-O) models to analyze how changes in a specific industry affect other industries and households.

The following terms help to characterize this process.

- **Direct Impacts** — the increase in demand within the State economy for construction materials and services from the project; usually measured as construction expenditures, but can also be expressed as the number of new construction jobs or job earnings.
- **Indirect Impacts** — the sum of all transactions that filter through the State economy because of the direct purchase of material and labor by the project's construction activity.
- **Induced Impacts** — the increase in household consumption within the State economy from workers who receive additional earnings through the direct or indirect impacts of construction.
- **Total Impacts** — the sum of the direct, indirect and induced economic impacts as measured by the overall increase in output, employment, and/or earnings within the State economy; also referred to as the total multiplied impacts, where the multiplier is the ratio of total to direct impacts.
- **Gross Impacts** —the economic effects of total project expenditures prior to assessing the proportion of economic impacts that would have still occurred in the absence of the project being constructed.
- **Net Impacts** —just the economic effects attributable to funds that are available only because of the project; these being funds that might otherwise not enter the local economy. For purposes of examining economic impacts on the State, only the federal grant funds that would be applied to project construction are assumed to be money that would not be spent within the State in the absence of the project. Economists emphasize the net impacts as more accurate measures of the true increases in output, employment, and earnings associated with a project.

Figure 5.1-6 illustrates the typical spending multipliers arising from the construction activity that would be associated with a transportation investment in the primary transportation corridor, and the associated flow of funds through the State economy.

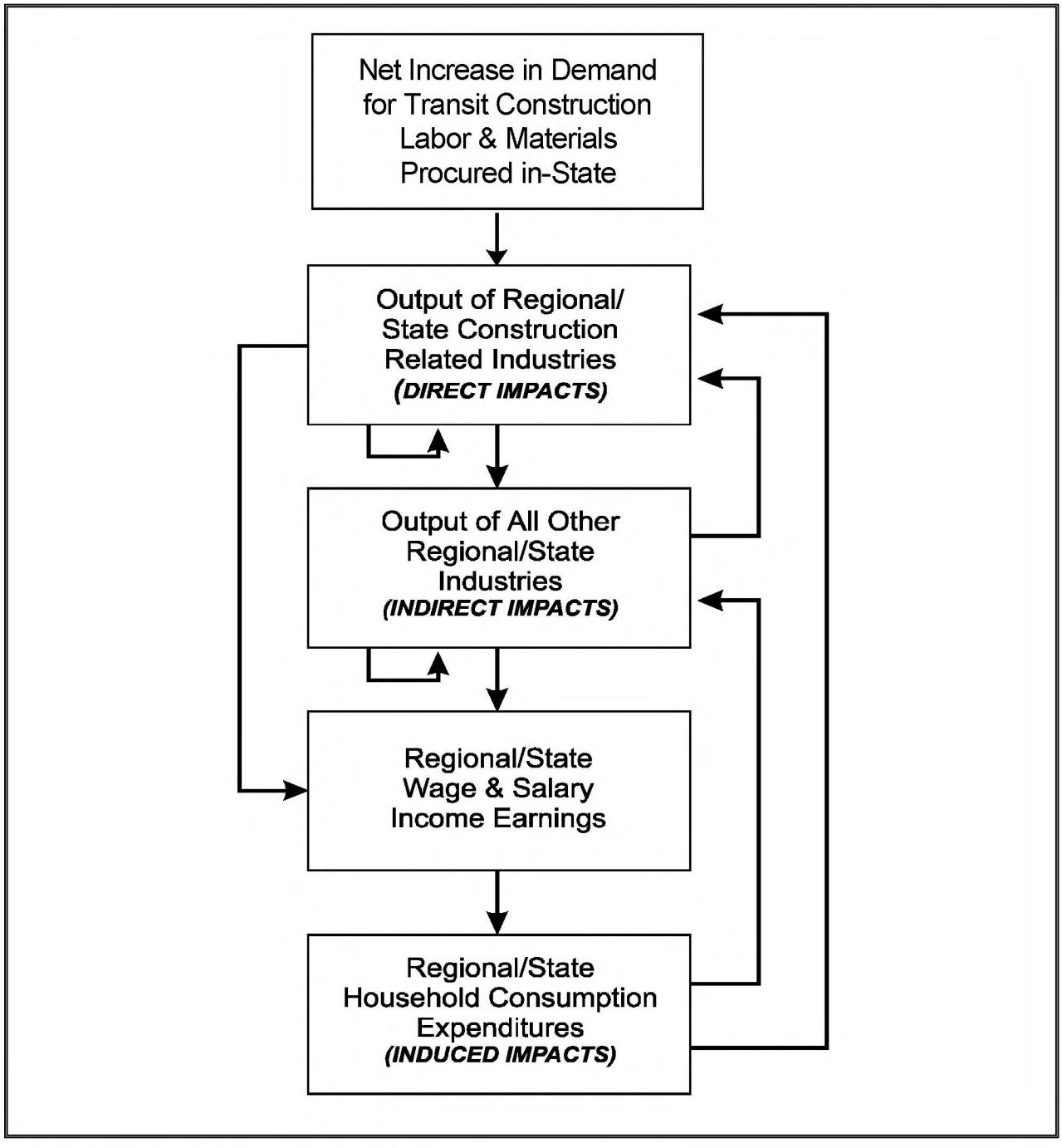
For this analysis, the Hawaii Input-Output Study 1997 Benchmark Report (March 2002) provides demand multipliers for output, earnings, and employment, by industry/economic sector, from the State Input-Output model. The Benchmark Report is the seventh in a series of input-output (I-O) studies of Hawaii's economy prepared over the past 35 years by the Department of Business, Economic Development & Tourism (DBEDT).

These multipliers apply to the State. For this project, Oahu represents the majority of the State's market for construction activities, and given the magnitude of the project, expenditures would have wider-ranging economic impacts. Therefore, given the economic dominance of Oahu to the rest of the State and the geographic isolation of the State from the rest of the U.S. economy, it is appropriate to consider statewide economic impacts.

Application of State of Hawaii Input-Output Multipliers

Three classes of State of Hawaii I-O final demand multipliers are utilized to estimate the gross and net impacts:

FIGURE 5.1-6
CONSTRUCTION SPENDING MULTIPLIER REACTIONS



Source: Parsons Brinckerhoff, Inc. July 2000.

- ***Final Demand Output Multipliers*** translate the initial project capital expenditures (demand) for construction outputs to the total multiplied effect on the demand for output of all firms/industries (in dollars) within the State economy;

- ***Final Demand Earnings Multipliers*** translate the same direct project expenditures into the total multiplied effect on wage and salary earnings within the State economy; and
- ***Final Demand Employment Multipliers*** convert project expenditures into the total multiplied effect on employment within the State economy, expressed in person-year jobs.

An estimate for the construction-related direct employment can be backed into by dividing a fourth class of multiplier, the ***Direct Effect Employment Multipliers,*** into the total employment estimates derived from the final demand employment multipliers when the capital cost estimates do not include detailed labor requirements. Similar ***Direct Effect Earnings Multipliers*** and resultant direct wage and salary earnings estimates can also be derived.

As shown in Table 5.1-5, capital costs are divided into three categories: general construction (including engineering/design services), components from outside of Hawaii (including vehicles and pre-manufactured elements), and land acquisition. The majority of the capital costs fall under the first category, general construction, which is assumed to be completely procured within the regional economy. The construction services industry I-O multipliers for the State are then applied to this portion of the total capital costs. Buses and other transit vehicles are assumed to be procured from outside the State.

TABLE 5.1-5
CAPITAL COSTS BY CATEGORIES (2002 $ × 1,000)

Alternative	Expenditure/Multiplier Categories			
	General Construction	Components from Outside of Hawaii	Land	Total
No-Build	$36,500	$367,900	--	$404,400
TSM	$93,100	$435,700	$12,000	$540,800
Refined LPA	$488,000	$543,800	$6,400	$1,038,200

Source: Parsons Brinckerhoff, Inc., October 2002.

Table 5.1-6 presents final demand multipliers and the direct effect multipliers for the State as contained in the DBEDT Input-Output Study.

Gross total economic impacts are calculated by multiplying the expenditure in millions of dollars in the General Construction category in Table 5.1-5 by the appropriate final demand multiplier in Table 5.1-6. Using the Refined LPA as an example, the expenditure of $488 million in the general construction category multiplied by the final demand employment multiplier of 19.3 yields a gross total employment impact on all industries within the regional economy of approximately 9,420 person-year jobs.

1. ($488M × 19.3) = 9,418 person-year jobs

However, some of these jobs would have occurred without the investment in the primary transportation corridor. A more realistic measure of net impacts on employment can be assessed by multiplying the gross total employment impact by the percentage of general construction expenditures representing the in-flow of federal discretionary grant money to the State. This gives approximately 2,800 person-year jobs, which represents the increase in statewide employment attributable to federal Section 5309 New Starts money used to fund the project.

TABLE 5.1-6
STATEWIDE ECONOMIC IMPACT MULTIPLIERS

		FINAL DEMAND MULTIPLIERS			DIRECT EFFECT MULTIPLIERS	
Expenditure Category	**Hawaii I-O Industry #**	**Output (dollars)**	**Earnings (dollars)**	**Employment (jobs)**	**Earnings (dollars)**	**Employment (jobs)**
Construction	#23, Road Construction	2.12	0.68	19.3	1.92	2.52

Source: Hawaii Input-Output Study 1997 Benchmark Report, Department of Business, Economic Development and Tourism (March 2002).

2. ($488M × 19.3 × 29.6% (which represents the percentage of federal New Starts funds vs. local and other federal funds expected to be contributed to the construction portions of the Refined LPA)) = 2,787 person-year jobs.

Gross direct construction employment within the State can be derived by dividing the direct effect employment multiplier from Table 5.1-6 into the gross total employment attributable to the construction expenditures from Table 5.1-7, or approximately 3,740 person-year jobs in project engineering and construction.

3. (9,418 ÷ 2.52) = 3,737 person-year jobs

Similarly, gross direct employment earnings for these 3,740 person-year jobs over the construction period would total approximately $173 million in 2002 dollars.

4. ($331.8M ÷ 1.92) = $172.8 in 2002 dollars.

2) Construction Economic Impacts Summary

The gross and net total impacts on the State economy resulting from construction activities are exhibited in Tables 5.1-7 and 5.1-8. Table 5.1-7 presents the gross total economic impacts for the entire State.

TABLE 5.1-7
TOTAL ECONOMIC IMPACTS OF PROJECT

Alternative	**(A) Gross Direct Expenditure for Construction ($2002 Million)**	**Total Statewide Impacts**			**Direct Construction Impacts**	
		(B) Output ($ Million)	**(C) Earnings ($ Million)**	**(D) Employment (Jobs)**	**(E) Earnings ($ Million)**	**(F) Employment (Jobs)**
		=(A) x 2.12	**=(A) x 0.68**	**=(A) x 19.3**	**=(C)÷1.92**	**=(D)÷2.52**
No-Build	36.5	77.4	24.8	704	12.9	279
TSM	93.1	197.4	63.3	1,797	33.0	713
Refined LPA	488.0	1,034.6	331.8	9,418	172.8	3,737

Source: Parsons Brinckerhoff, Inc., using DBEDT multipliers from I-O model, October 2002.

TABLE 5.1-8
ECONOMIC IMPACTS OF FEDERAL DISCRETIONARY FUNDS

Alternative	(A) FTA Section 5309 New Starts Funds Expected ($2002 Million)	Total Statewide Impacts			Direct Construction Impacts	
		(B) Output ($ Million)	(C) Earnings ($ Million)	(D) Employment (Jobs)	(E) Earnings ($ Millions)	(F) Employment (Jobs)
		=(A) x 2.12	=(A) x 0.68	=(A) x 19.3	=(C)÷1.92	=(D)÷2.52
No-Build	0.0	0.0	0.0	0.0	0.0	0.0
TSM	0.0	0.0	0.0	0.0	0.0	0.0
Refined LPA	144.4	306.1	98.2	2,787	51.1	1,106

Source: Parsons Brinckerhoff, Inc., using DBEDT multipliers from I-O model, October 2002.

Using the Refined LPA as an example, new demand for construction would generate gross direct impacts equal to the capital cost of $488 million in 2002 dollars. Adding in the indirect and induced impacts on the output of other industries in the State, the gross multiplied impact on output would be about $1 billion over the construction period. Of this amount, $331.8 million would be paid to workers as wage and salary earnings for the 9,418 person-year jobs generated.

Table 5.1-8 presents the net total economic impacts within the State attributable to FTA Section 5309 New Starts money used to help fund the project. Demand for construction expenditures would range from no New Starts construction money for the No-Build and TSM Alternatives to $144.4 million for the Refined LPA (2002 dollars), reflecting the money generated by New Starts grants used for construction of portions of the project. Adding in indirect and induced impacts on the output of other Hawaii industries, the net multiplied impact on output would range from no construction money for the No-Build and TSM Alternatives to $306.1 million for the Refined LPA over the construction period. These numbers correspond to no new jobs created for the No-Build and TSM Alternatives to 2,787 person-years of new jobs created by the Refined LPA.

While gross total economic impacts are useful for examining the overall magnitude of the project, the net economic impacts from federal discretionary (grant) funds represent more generally accepted and appropriate estimates of the true economic impacts that would arise solely from project construction. This is because local funds invested in the project and federal formula funds which would flow to the State anyway would likely be spent in some other manner within the local economy — with similar multiplied impacts — in the absence of investment in the primary transportation corridor.

Economic Impacts Resulting From The Refined LPA

The Refined LPA will create additional transit jobs. There would be approximately 1,540 jobs as compared to 1,181 jobs today. This is an increase of approximately 360 jobs or 30 percent. This reflects new bus drivers and mechanics. There will be additional administration and management jobs. These numbers were derived using the same ratio of jobs per revenue vehicle hour as with the existing fleet.

Economic Impacts to Private Bus Operators

The BRT routings, stop locations and other features are designed to serve trips by Oahu residents going to-and-from home, work, school, shopping and other purposes. It is not designed to serve the tourist market as are the private bus operations in Honolulu. Unlike private sector buses, taxis and vans, the BRT will not pick-

up passengers at their hotels, transfer them to-and-from the airport, take them directly to a desired tourist destination non-stop, or accommodate luggage unless the luggage can fit on the passenger's lap.

Although it is not ideally suited for tourists, some may choose to use the BRT since it serves some activity centers that attract tourists. However, the BRT goes to these places because most of these are also major employment sites or sites where local residents go to as well. According to islandwide data compiled by the OMPO and a recent on-board survey conducted in Waikiki, visitor's account for approximately five to ten percent of total daily boardings systemwide and 20-25 percent of boardings in Waikiki. The tourists expected to use the public transit system with the BRT is forecast to be no greater proportionally than today.

When applied to the forecasted daily boardings associated with the Waikiki portion of the In-Town BRT, the total number of visitor trips is equal to approximately 7.7 percent (6,400) of all daily In-Town BRT boardings (83,200). It is not expected that tour bus and trolley operators will be adversely affected due to the relatively low number of tourists that are expected to choose BRT for their travel needs. The more important determiners of economic impact on tour bus operators will be intra-industry competition and the overall health of the tourism market as expressed in visitor arrivals.

The Kaimuki-Kapahulu-Waikiki Trolley is a result of the community visioning team's effort to increase the vitality of the area. The trolley began operation on August 1, 2000. The trolley operates seven days a week from early in the morning to 11:00 p.m. on thirty-minute headways. There are 25 stops along the trolley route, which would connect to the future BRT in Waikiki. The trolley is averaging over 120 riders per day. The City contracts with a private bus operator for this service, which has provided the private operator the opportunity for economic benefit. Other opportunities to contract with private passenger carriers will exist on the Refined LPA circulator routes.

5.2 DISPLACEMENTS AND RELOCATIONS

This section discusses potential displacements of existing land uses associated with the No-Build Alternative, TSM Alternative, and the Refined LPA. Displacements would occur in the following cases:

- at certain proposed transit stops, transit centers, TPSS, and maintenance facilities where right-of-way for the transit feature could not be accommodated within the existing government owned right-of-way; and
- along proposed transit alignments where the existing roadway right-of-way would not be adequate for proposed project elements (e.g. widening of Kapiolani Boulevard at Kalakaua Avenue).

The analysis of displacement impacts is based on preliminary engineering plans as of November 2002, from which a list of potentially affected tax map keys (TMKs) was compiled. In the case of occupied TMKs, existing businesses, residences or institutions were specifically identified. The business names reflect tenants occupying those locations in early 2002. The number of employees at potentially affected businesses was estimated using the Hawaii Business Directory (1997, 1998, and 1999 versions) and by field checking locations as necessary between December 2001 and January 2002. Follow-up field checks were also conducted in September 2002.

Where an alternative would require additional right-of-way, the associated property acquisitions could result in total or partial displacement of existing land uses. For this initial analysis, a "total displacement" was defined as cases where enough of a property would be lost as to make the existing land use on that property no longer viable. A property was defined as a tax map key (TMK) parcel. For example, if a parcel were to lose a large portion of an occupied building, be segmented, and/or lose access to the street system, it was deemed a total displacement. A "partial displacement" determination was applied to cases where some land and/or building portion may be lost, but it was deemed that the continuation of the existing land use would be economically viable, based on information currently available. The "partial displacement" determination was also extended to circumstances where private parking may be affected, and includes impacts as minimal as the loss of marginal landscaping.

The TSM Alternative and the Refined LPA would be constructed within or adjacent to existing roadways as much as possible, in part to minimize costs and also to minimize business, residential and institutional displacements. Section 5.2.2 details business displacements under the TSM Alternative and the Refined LPA.

In summary, none of the alternatives would require any total displacements. The No-Build and TSM Alternatives would result in a partial displacement of agricultural land used by one farm. Under the Refined LPA, 23 properties would experience minor losses of land area, including the impact to the farm.

5.2.1 Residential Impacts

None of the project alternatives will require the total displacement of any residence. However, one property will be affected under the Refined LPA. Kapalama Makai, an apartment complex on the corner of Dillingham Boulevard and McNeill Street (1514 Dillingham Boulevard), will require a modification of its driveway, and would lose one or two parking spaces.

5.2.2 Business and Institutional Impacts

1) Total Displacements

None of the alternatives would require the total displacement of any business or institution.

2) Partial Displacements

The No-Build Alternative, TSM Alternative, and the Refined LPA assume the construction of a park-and-ride facility along the future North-South Road. The North-South Road Park-and-Ride would remove about two to four acres of active agricultural land; however, the farm would remain viable (See Table 5.2-1). There would be no other partial displacements for the No-Build or TSM Alternatives.

TABLE 5.2-1
PARTIAL DISPLACEMENTS WITH IMPACTS TO AGRICULTURE

TMK	Business or Institution	Industry or Use	Impact on Business or Institution	Project Element
9-1-018:005	Farm	Agriculture	Loss of approximately 2-4 acres of agriculture land	North-South Road Park and Ride Site

Source: R.M. Towill and Parsons Brinckerhoff, Inc., April 2002 and September 2002.

The In-Town BRT element of the Refined LPA will require additional right-of-way at certain locations along its alignment where roadway right-of-way is inadequate for the system, and for traction power supply stations (TPSS). Although these right-of-way requirements will not require any business or institutional relocations, 29 businesses or institutions will be affected by losses of land area, which may affect their driveway access, parking and/or landscaping. These impacts are described on Tables 5.2-2 and 5.2-3.

Eighteen businesses and institutions will be affected by partial displacements along Dillingham Boulevard, the alignment of the In-Town BRT Kalihi Branch. As stated on Table 5.2-2 and Table 5.2-3, they will generally be affected by modifications to their driveways (i.e., cut due to Dillingham Boulevard widening), and displacements of parking and/or landscaping.

The Kakaako, University and Waikiki Branches will require very little right-of-way from adjacent parcels, and the impacts would be displacements of relatively small amounts of landscaping. Lane widening for the University Branch on Pensacola Street will result in the displacement of some landscaping fronting McKinley

High School. The Waikiki Branch will require the widening of Kalia Road, which will result in the displacement of the Fort DeRussy landscaped area next to the road. No buildings would be affected, however.

TABLE 5.2-2
REFINED LPA PARTIAL DISPLACEMENTS WITH DRIVEWAY OR PARKING IMPACTS

TMK	Business or Institution	Industry or Use	Impact on Business or Institution	Project Element
1-2-013: 002	Oahu Community Correctional Center (OCCC)	Corrections Facility	Displacement of landscaping	Kalihi Branch
1-5-017:004	Honolulu Community College	School	Displacement of landscape/grassy area, and relocation of parking entrance	Kalihi Branch
1-5-028:019	City Bank	Bank	Displacement of 1 parking stall and landscaping	Kalihi Branch
1-5-028:022	Checker Auto Parts	Auto Parts Retailer	Displacement of 3 parking stalls and landscaping.	Kalihi Branch
1-5-029:050	Dillingham Shopping Plaza (two businesses potentially affected)	Shopping center	Displacement of landscaping and up to 8 shared parking stalls shared by two businesses, Sizzler's Restaurant and Hawaii National Bank	Kalihi Branch
2-6-005: 001	Fort DeRussy	Army military base and recreational facility	Displacement of landscaping	Waikiki Branches

Source: SSFM and Parsons Brinckerhoff, Inc., April 2000 and September 2002.

TABLE 5.2-3
REFINED LPA PARTIAL DISPLACEMENTS WITH IMPACTS TO LANDSCAPING

TMK	Business or Institution	Industry or Use	Impact on Business or Institution	Project Element
1-2-016:029	Love's Bakery	Bakery	Loss of landscaping	Middle St. maintenance facility
1-2-003:020	Building Industry Association of Hawaii	Trade Organization	Displacement of landscaping, and modification of sidewalk	Kalihi Branch
1-2-003:106	Island Recycling	Recycling Ctr.	Modification of driveway and displacement of parking	Kalihi Branch
1-2-009:011	Blood Bank of Hawaii	Blood Bank	Displacement of landscaping and modification of sidewalk	Kalihi Branch
1-5-015:010	Bank of Hawaii	Administrative Offices	Displacement of landscape/grassy area	Kalihi Branch
1-5-020:003	H&R Block	Tax Services	Displacement of landscape/grassy area	Kalihi Branch
1-5-020:003	Spot's Inn Plate Lunch	Restaurant	Displacement of landscape/grassy area	Kalihi Branch
1-5-020:007	Kapalama Shopping Ctr.	Shopping Plaza	Displacement of a small amount of landscaping	Kalihi Branch
1-5-020:007	Hilti	Construction Equipment Retailer	Displacement of a small amount of landscaping	Kalihi Branch
1-5-022:001	New Hope	Church	Displacement of a small amount of landscaping	Kalihi Branch
1-5-025:002	Kalihi Kai Elementary School	School	Displacement of landscaping and a large tree	Kalihi Branch
1-5-029:049	Tesoro	Gas Station	Displacement of landscaping	Kalihi Branch
1-5-029:049	Popeye's	Restaurant	Displacement of landscaping	Kalihi Branch
1-5-029:049	Burger King	Restaurant	Displacement of landscaping, and modification of sidewalk	Kalihi Branch
2-1-027:002	Federal Building	Office Building	Displacement of landscaping	Kakaako Mauka Branch
2-3-009:010	McKinley High School	High School	Displacement of landscaping/grassy area	University Branch

Source: SSFM and Parsons Brinckerhoff, Inc., May 2002 and September 2002.

If embedded plate technology is used, the In-Town BRT will require approximately 15 traction power supply stations (TPSS). Most of the TPSS could be incorporated into existing or future buildings, or could be placed in areas that are not considered to have aesthetic value, such as parking lots. Potential TPSS locations are designated on the preliminary engineering drawings provided in Appendix B (see Volume 4). However, since it would be 8 to 14 years before the EPT is installed depending on the segment, the locations shown on the design drawings are not site specific; each notation is intended only to indicate the general vicinity in which a TPSS would be placed. Site specific environmental assessments of each TPSS would be prepared prior to proceeding with implementation of EPT. Locations and design treatments would be established with community input.

5.2.3 Real Property Acquisition Program

Since federal funds would be used to assist project construction, the project would be subject to provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR Part 24, 42 U.S.C. 4601, et seq.). State law on relocations is provided in Hawaii Revised Statutes (HRS) Chapter 111, Assistance to Displaced Persons.

Fair market compensation for land, buildings and uses would be provided to property owners directly affected by right-of-way requirements. For properties that would experience partial displacement but not relocation, mitigation would be provided at project cost, such as reconstruction of building façades and replacement of lost parking stalls. In addition, moving and other expenses would be reimbursed, as described below. The costs of the relocation assistance are included in the project's cost estimates, as described in Chapter 2.

5.3 NEIGHBORHOODS, COMMUNITY FACILITIES, AND ENVIRONMENTAL JUSTICE

5.3.1 General Impacts

This section discusses potential impacts to neighborhoods and community character during operation of the proposed alternatives.

None of the alternatives would adversely affect community or neighborhood character or facilities since the proposed transit improvements (changes in bus service) would operate over existing streets with minimal new construction. Although the P.M. zipper lane on the H-1 Freeway and expansion of the Kalihi/Palama (Middle Street) bus maintenance facility are elements of the Refined LPA, neither action would change the existing industrial and mixed business use character of the Airport, Mapunapuna, or Kalihi neighborhoods. Neighborhood character and cohesion in these areas would not be adversely affected.

With the Refined LPA, establishment of an In-Town transit spine and transit stops would enhance community cohesion at new stop locations, especially where redevelopment potential exists, such as the Iwilei and Kakaako areas of the corridor. Transit stops and transit centers would provide a focal point of activity in areas where, at present, there is little foot traffic and people activity.

1) Fire and Rescue Services/Police/Emergency Medical Services

Increases in traffic volumes and worsening congestion in the primary transportation corridor would continue under the No-Build and TSM Alternatives. Emergency response times would worsen, and access to services and facilities would become increasingly congested and dangerous, especially during peak hours. With the Refined LPA, response times for emergency vehicles would improve because they would be able to use the transit priority lanes of the Regional and In-Town BRT systems to bypass roadway congestion when in route to an emergency.

2) Schools

No adverse effects on school facilities from the No-Build and TSM Alternatives and Refined LPA are expected. Rather, access to schools in the corridor would be improved through enhanced transit service. For example, the Refined LPA would provide a BRT line from the Middle Street Transit Center to the University of Hawaii-Manoa campus. Construction would not interfere with campus facilities, and the Refined LPA would enhance access to the UH-Manoa campus. Other schools that would benefit under the Refined LPA are Honolulu Community College, McKinley High School, and Lunalilo and Jefferson Elementary Schools.

3) Parks and Recreation Areas

The No-Build and TSM Alternatives and Refined LPA would not adversely affect parks and recreation areas. With the Refined LPA, access would be improved to Thomas Square, Ala Moana Regional, Ala Wai, Makai Gateway, Kakaako Waterfront, Kuhio Beach and Kapiolani Parks. Impacts on parklands are discussed in more detail in Section 5.11.

4) Traffic and Parking

Traffic and parking impacts are discussed in Chapter 4. Overall, traffic volumes and congestion would increase the most with the No-Build Alternative. Transit stops, transit centers, and park-and-ride lots would generate localized increases in auto traffic during rush hours. The most noticeable effects would occur in areas where there is already substantial vehicle activity and in areas where small increases in existing low or low-to-moderate traffic levels may be perceptible. Construction of the Refined LPA in the street rights-of-way of the Ala Moana/Kakaako neighborhood on Pensacola Street and Ala Moana Boulevard, and of Moiliili on Kapiolani Boulevard and University Avenue, would result in loss of some on-street parking spaces. The net effect is that the people carrying ability of these streets would be increased under the Refined LPA.

5.3.2 Barriers to Social Interaction

None of the alternatives would create visual and psychological barriers within neighborhood boundaries. The In-Town BRT stops would be at-grade where social interaction can continue to take place.

5.3.3 Mitigation Measures

Sensitive design of the new stops and transit centers can help the new facilities blend with and enhance the existing environment. Use of appropriate design character, construction materials and landscaping would help lessen the visual intrusion of a new facility in or adjacent to a neighborhood. Other mitigating design features include installation of new pedestrian paths and bikeways or enhancement of such existing facilities.

5.3.4 System Safety and Security

System safety and security planning would be part of the overall system design for the Refined LPA. Primary concern would be for the safety of passengers and transit personnel, as well as pedestrians, motorists, and others that could be affected by the project. The design would provide a safe environment that would minimize the possibility of injury to anyone, or damage to transit system facilities and equipment.

The system design under the Refined LPA would aim to be such that no single equipment failure or human error could result in serious injury. An operating plan including a hazard analysis and risk assessment would be developed. This plan would include general approaches to failure management, including modes of operation under abnormal conditions. A separate maintenance plan would also prescribe preventive and corrective maintenance procedures. This plan would address equipment reliability, routine maintenance procedures and schedules, and safety assurance procedures for vehicles used in revenue service.

System security would be provided to protect the public and the transit system from crime and vandalism in the Refined LPA. The security system may include a combination of the following: transit system workers, special transit police, and local police. A comprehensive System Security Plan would be prepared during the final design phase to address passenger security, employee security, revenue security, vandalism, theft, crowd control, power/mechanical failures, fires, accidents, and other incidents.

Safety concerns have been taken into account in the locating and concept design of the median transit stops for the In-Town BRT element. Measures including bollards at the ends of the platforms and safety railings along the backside of the platforms on the transit medians would provide passengers a safe waiting environment. Further, median transit stops would be located at street intersections so that riders would be using crosswalks to get safely to and from the boarding area.

5.3.5 Environmental Justice (Executive Order 12898)

Presidential Executive Order (EO) 12898, signed on February 11, 1994, is called the Executive Order on Environmental Justice. It requires federal agencies to take appropriate and necessary steps to identify and avoid disproportionately high and adverse effects of federally assisted projects on minority and low-income populations' health or environment. Minority is defined as (OST Docket No. OST-95-1411):

- Black Americans, which includes persons having origins in any of the black racial groups of Africa;
- Hispanic Americans, which include persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
- Asian Americans, which include persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands; and
- American Indians and Alaskan Natives, which include persons having origins in any of the original people of North America and who maintain cultural identification through tribal affiliation or community recognition.

Low-income means a household income at or below the U.S. Department of Health and Human Services poverty guidelines, which, for 2002 in Hawaii, was an income at or below $20,820 per year for a family of four.

Figure 3.3-1 identifies the major neighborhoods in the study area. As described in Chapter 2, the proposed project would be implemented from Kapolei on the west end, to Manoa and Waikiki on the east end. However, the level of adverse impact and benefit on any particular neighborhood would depend on which elements of the project would be located within that neighborhood. As described in Section 3.3-1, minorities, as defined above, actually comprise the "majority" of the Oahu population. As indicated on Table 3.3-2, only Airport/Hickam/Pearl Harbor had a non-minority population of greater than 50 percent. Therefore, it is difficult to assess compliance with EO 12898 using only the minority criterion, or else almost every neighborhood in the study area, regardless of their socio-economic status, would be afforded protection under EO 12898, which is clearly not the intent of the executive order. However, by considering other factors, such as income, poverty and housing status (see Tables 3.3-4 and 3.3-5), the socio-economic differences between neighborhoods becomes apparent. In addition, it was necessary to analyze the socio-economic conditions of areas smaller than neighborhood units because the aggregated data on major neighborhoods (shown in Tables 3.3-2 through 3.3-5) could conceal information relevant to the identification of a smaller area within a neighborhood as a concentration of minority and low-income populations. It should be noted that Table 5.3-1 and Figures 5.3-1A through 5.3-1C use 1990 Census income data because as of June 2002, 2000 Census income data was not available.

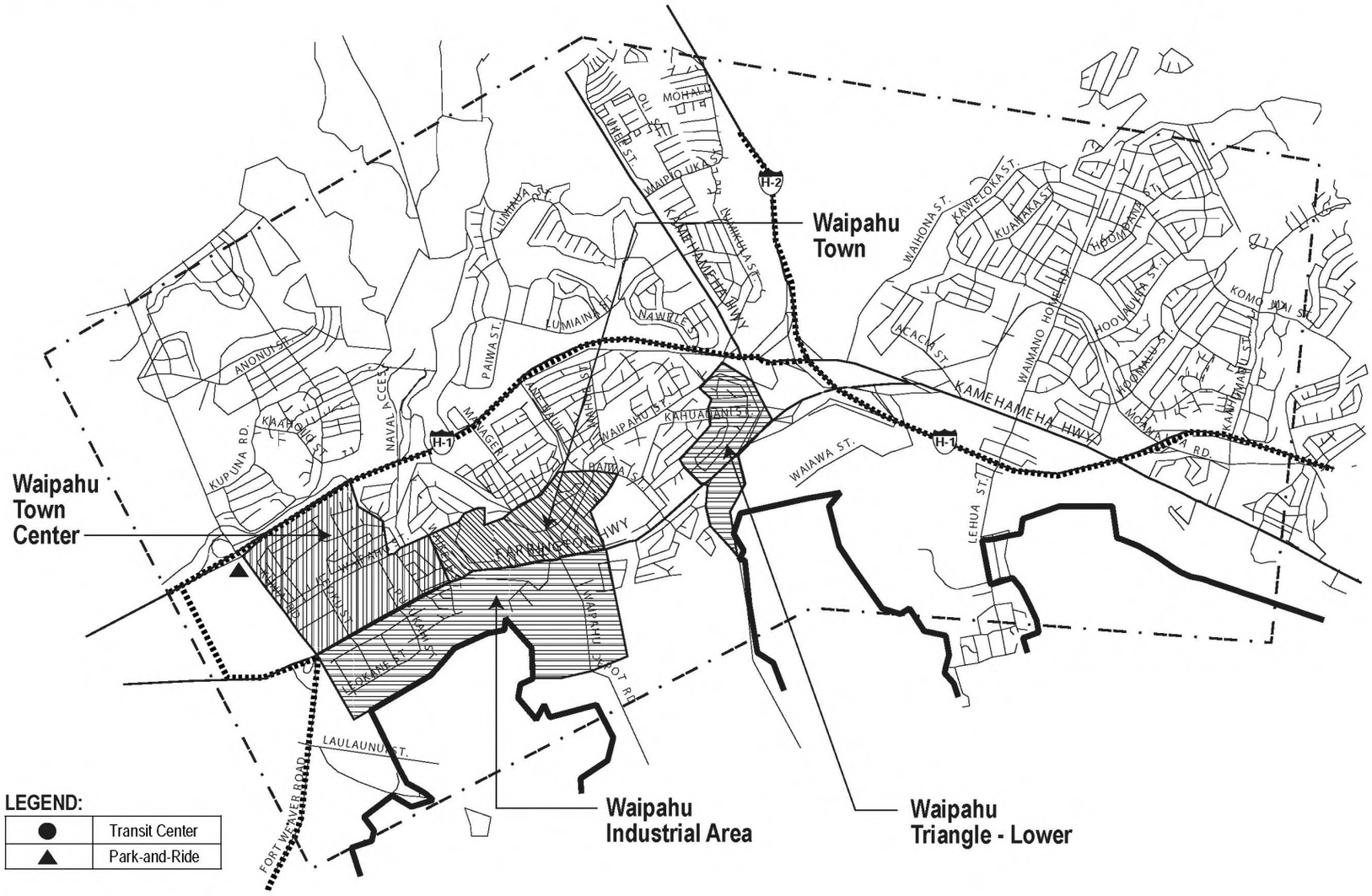
Table 5.3-1 displays minority and low-income populations by neighborhood or sub-neighborhood in the study area, and Figures 5.3-1A through 5.3-1C show their locations. Race, household income, rental occupancy rates, and poverty levels were considered in identifying these populations. Another important factor considered was whether the neighborhood or sub-neighborhood has a high percentage of families within its total number of households. Neighborhoods with small average household sizes (i.e., small percentage of families), even though they may have relatively lower median household income and high renter-occupancy

TABLE 5.3-1
ENVIRONMENTAL JUSTICE
MINORITY AND LOW-INCOME POPULATIONS IN STUDY AREA
(BY NEIGHBORHOOD OR SUB-NEIGHBORHOOD)

Neighborhood or Sub-Neighborhood	Rationale[1]
Waipahu Town Center (sub) Census Tract (CT) 89.01 5,344 persons	80 percent minority population $33,200 median household income 6 percent family poverty rate 57 percent renter occupancy 90 percent of households are families
Waipahu Industrial Area (sub) Parts of CT 87.03 and 87.02 2,813 persons	77 percent minority population $19,811 median household income 35 percent family poverty rate 94 percent renter occupancy 82 percent of households are families
Waipahu Town (sub) Parts of CT 82, 87.02 and 88 3,850 persons	90 percent minority population $33,636 median household income 18 percent family poverty rate 69 percent renter occupancy 89 percent of households are families
Waipahu Triangle – Lower (sub) Parts of CT 82 and 87.01 3,404 persons	96 percent minority population $45,476 median household income 10 percent family poverty rate 38 percent renter occupancy 87 percent of households are families
Stadium (sub) Parts of CT 74, 75.01 and 76 3,114 persons	83 percent minority population $28,669 median household income 22 percent family poverty rate 60 percent renter occupancy 85 percent of households are families
Kalihi-Palama CT 53 (part), 54, 55, 56 57, 58, 59, 60, 61, 62.01 (part) and 62.02 40,144 persons	91 percent minority population $25,647 median household income 16 percent family poverty rate 71 percent renter occupancy 76 percent of households are families
Chinatown (sub) CT 52 2,480 persons	88 percent minority population $13,202 median household income 17 percent family poverty rate 97 percent renter occupancy 45 percent of households are families
Kaheka (sub) CT 36.01 5,151 persons	75 percent minority population $20,544 median household income 9 percent family poverty rate 69 percent rental occupancy 34 percent of households are families
Lower McCully (sub) 5,856 persons Parts of CT 24.01 and 25	78 percent minority population $24,208 median household income 12 percent family poverty rate 77 percent rental occupancy 49 percent of households are families

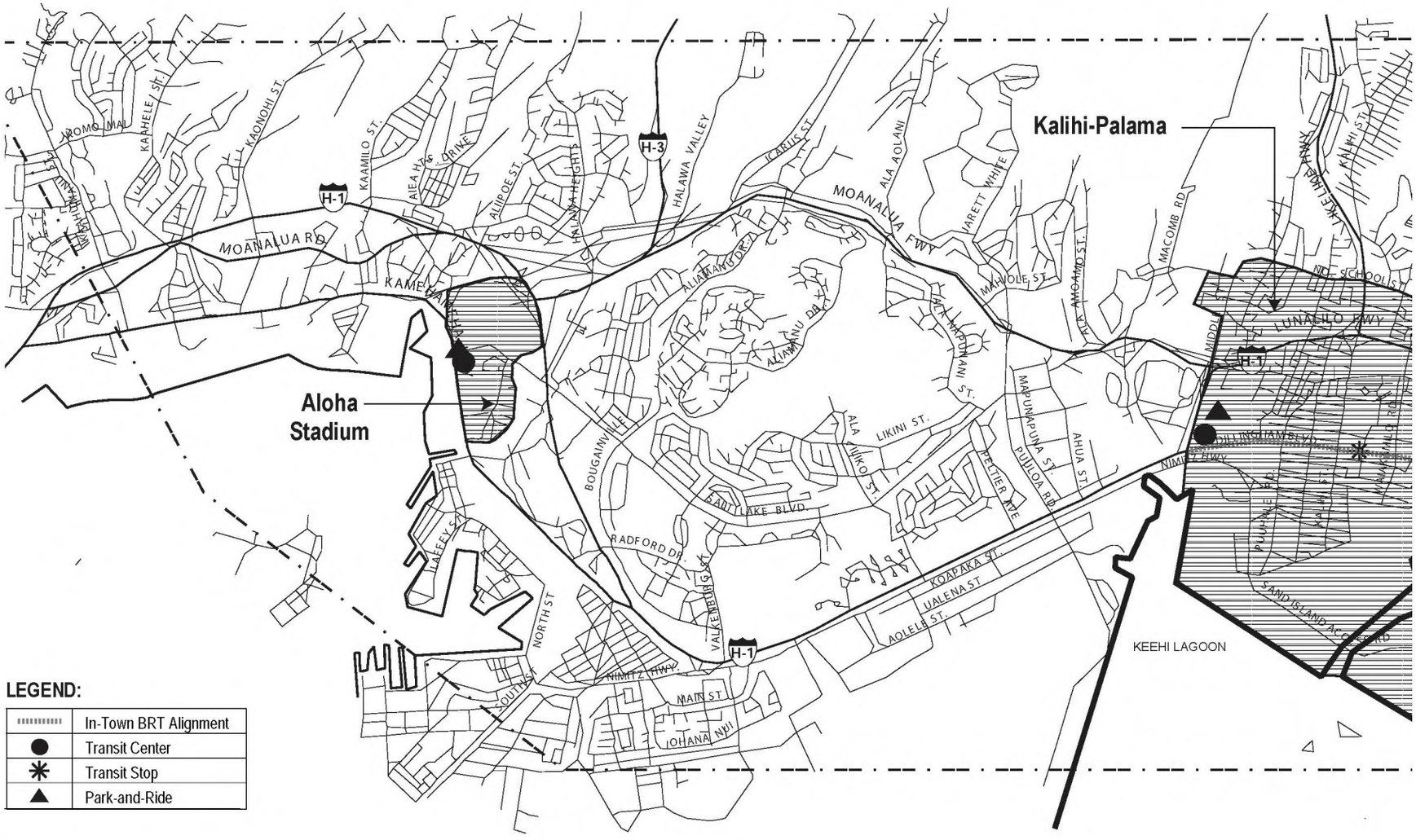
Source: Neighborhood Profiles, City and County of Honolulu Planning Department (now Department of Planning and Permitting), and Parsons Brinckerhoff, Inc., 1996

Note: [1] Data is from the year 1990 U.S. Census.
"Other race" was included in minority population.



Locations of Minority and Low-Income Populations: Waipahu - Pearl City

Figure 5.3-1A

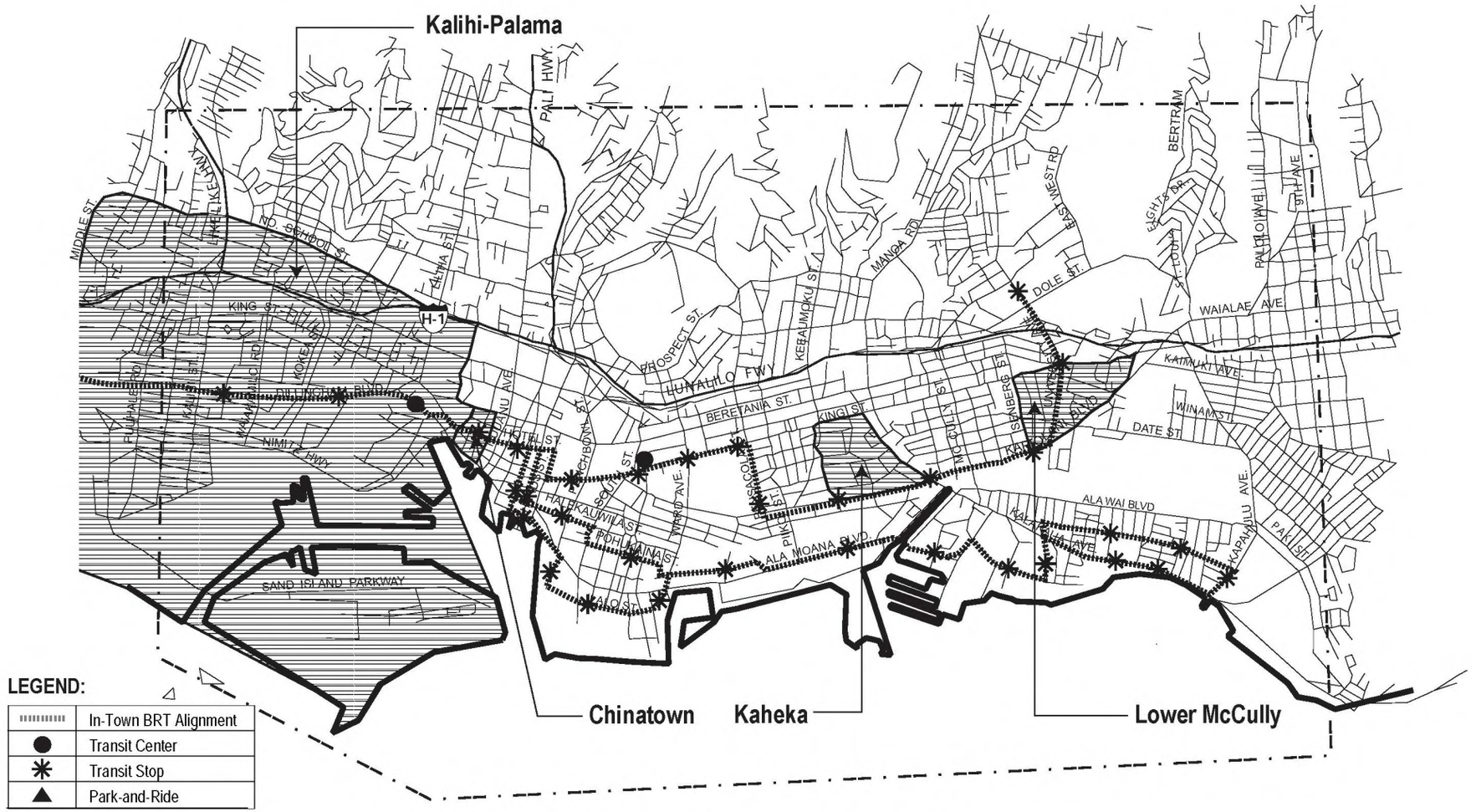


SOURCE:
U.S. Census Bureau

Scale: 0 .25 .50 mi

Locations of Minority and Low-Income Populations: Aiea - Fort Shafter

Figure 5.3-1B



SOURCE:
U.S. Census Bureau

Scale: 0 .25 .50 mi

Locations of Minority and Low-Income Populations: Kalihi - University

Figure 5.3-1C

rates, were often not considered to be minority and low-income populations. Examples of such areas include residences near a college or university, or urban areas populated by young working adults (i.e., those who are not in their prime earning years) who have chosen an "urban lifestyle." However, some of these types of neighborhoods contained high poverty rates, and were therefore identified as containing minority and low-income populations.

Four sub-neighborhoods in Waipahu, the residential area near Aloha Stadium, Chinatown, Kaheka and Lower McCully were identified as sub-neighborhoods containing minority and low-income populations. The only major neighborhood identified with minority and low-income populations is Kalihi-Palama.

The TSM Alternative and Refined LPA would not cause disproportionately high and adverse health or environmental effects on these minority and low-income populations because:

- although some of the populations would be located near elements of the proposed project, such as the alignment of the In-Town BRT, the project would benefit these populations by improving their transit service;
- the alignments were selected in such a manner as to minimize adverse impact while maximizing travel benefits for minority and low-income residents (Chapter 2 contains a further discussion of the balancing of transportation benefits with environmental impacts leading to the selection of certain arterial streets for the alignment of the In-Town BRT system);
- the alignment goes through dozens of neighborhoods, most of which are not minority or low-income;
- minority and low-income areas are not being isolated by the project;
- the proposed project would not create health risks to minority and low-income populations; and
- project-related impacts to the minority and low income populations would be avoided, minimized or mitigated whenever possible.

In summary, minority and low-income areas would receive the positive benefit of improved access and would not be disproportionately affected by negative impacts.

Most of the minority and low-income populations identified on Table 5.3-1 are not located near construction activities associated with the proposed project and, therefore, would not experience disproportionate adverse health or environmental effects. The P.M. zipper lane would be the only project element near the minority and low-income populations in Waipahu. Similarly, the Stadium residential area would not be affected by the H-1 Freeway ramp at Luapele Drive, P.M. zipper lane and the Aloha Stadium Transit Center, the only project elements near this neighborhood.

Minority and low-income populations identified on Table 5.3-1 that would be directly affected by the project are located in Kalihi-Palama, Chinatown, Kaheka, and Lower McCully (see Figures 5.3-1A through 5.3-1C). The In-Town BRT would traverse the Kalihi-Palama and Chinatown neighborhoods, and be adjacent to the Kaheka and Lower McCully sub-neighborhoods. Because these neighborhoods have high rates of transit usage, moving the In-Town BRT alignment to avoid these neighborhoods would detract from the ability of the project to enhance service to minority and low-income populations. The Refined LPA would substantially improve the level of transit service (amenities, access and quality) provided to the minority and low-income populations in the urban core. The Refined LPA, as well as the TSM Alternative, would also improve transit service for minority and low-income populations outside the urban core, such as those populations in Waipahu, because of the conversion to a hub-and-spoke system and increase in service levels compared to the No-Build Alternative.

The benefit to the identified minority and low-income populations is improved transit service, without the drawback of disproportionate adverse health or environmental impacts. As described in Section 2.2.3, the In-Town BRT system would be constructed by converting general-purpose traffic lanes on city streets, which would eliminate the need for major right-of-way acquisitions.

Participation from residents and business owners serving the minority and low-income populations has been actively solicited throughout project planning (see Appendix A). Workshops, presentations and small group meetings have been held in communities throughout the island, including the five rounds of workshops within the Oahu Trans 2K process, the sub-area Working Groups, and individual meetings with community, environmental, business and civic organizations. Input from these public involvement activities has been influential in planning the proposed project.

Potential health risks to minority and low-income populations are related to traffic safety, adverse air quality and noise impacts, and the release of hazardous materials. However, these risks would not disproportionately affect minority or low-income populations, and potential impacts of these types would be minimal or mitigated, as described elsewhere in this document.

Potential traffic safety hazards could involve transit riders being exposed to In-Town BRT and other vehicles while walking to or waiting at the In-Town BRT median platforms. To mitigate potential traffic hazards, these median In-Town BRT stops would be located at intersections where crosswalks are provided, and the platforms would include bollards and railings for safety (see Section 5.3.4). Air quality impacts would not pose health risks because carbon monoxide (CO) levels throughout the project area would not exceed the National Ambient Air Quality Standards (AAQS), and would be generally the same as the No-Build Alternative (see Section 5.5). The State AAQS would be exceeded at certain intersections under all the alternatives. However, it should be noted that the State AAQS for CO is set at such a stringent level, that it is exceeded at many locations that have even moderate traffic volumes. Also, the air quality analysis is based on the assumption of worst-case meteorological conditions that may only occur once a year or even less.

The proposed project would cause noise impacts to an EJ population near Aloha Stadium, but this impact will be mitigated (see Section 5.6). Other adverse impacts to the minority and low-income populations adjacent to the project include construction impacts, and the removal of some landscaping. Whenever possible, measures to avoid, minimize, or mitigate adverse impacts would be implemented as described in relevant sections of this document.

Another potential adverse impact to minority and low-income populations is the proposed location of the Refined LPA's maintenance facility. The site is in the Kalihi-Palama neighborhood, integrated with the existing bus maintenance facility on Middle Street (see Section 2.2.3). This site was selected because of its proximity to the existing bus maintenance facility, the parcel zoning is industrial, and there are no residences immediately adjacent to the site (the nearest residences are several hundred meters to the east). Therefore, the placement of this facility in Kalihi-Palama does not represent a disproportionately high and adverse effect on minority and low-income populations.

In conclusion, the proposed project would be located at and near some minority and low-income populations. In accordance with EO 12898, federal projects must take appropriate and necessary steps to avoid disproportionately high and adverse effects on these populations. For those minority and low-income populations near elements of the project (in particular the Refined LPA), these populations would benefit from improved transit service without experiencing disproportionate health or environmental impacts. Even the proposed location of the Refined LPA system maintenance facility in Kalihi-Palama is not a disproportionately high and adverse impact, because residents would not be directly affected by such a facility.

5.4 VISUAL AND AESTHETIC RESOURCES

This section identifies the project elements that would result in visual impacts and discusses them in relation to the important visual resources identified in Section 3.4.

Potential visual impacts were determined by assessing the compatibility of the transportation improvements in the context of the existing environment. A key concept in visual quality assessment is the notion of visual compatibility between the alternatives and the existing landscape. "Visual compatibility" is defined as the degree to which the existing visual resources and the proposed transportation improvements can co-exist

harmoniously. The degree of visual compatibility is greater when a transportation improvement blends in, *i.e.*, conforms, rather than contrasts, with surrounding visual resources.

5.4.1 Impacts

Regardless of the propulsion technology selected, the In-Town BRT in the Refined LPA will use bus-like vehicles without an overhead catenary system or fixed rails, running at-grade on existing roadways. Therefore, the enhanced operation of buses and the new BRT vehicles will not have a negative impact on visual resources along most of the proposed alignment. Priority treatments for buses will involve minimal physical changes to the vertical view plane, resulting in little or no visual impact on the existing landscape, regardless of land use. The embedded plate technology requires traction power supply stations (TPSS) about every 3,300 feet in sections where the BRT vehicles operate at two-minute headways and 6,600 feet apart in sections where vehicles operate at four-minute headways. A typical TPSS structure is approximately 35 feet by 15 feet by 10 feet high. Locations of the supply stations will be made as unobtrusive as possible. Where it is feasible, supply stations will be located within a proposed transit center, or within other existing or proposed buildings such as parking structures. In the absence of an available appropriate structure, TPSSs will be located in vacant lots or in lots shared with existing structures.

The Refined LPA provides opportunities to enhance the urban form -- not only in the urban core but also wherever transit improvements are proposed. These enhancements to activity centers serve as opportunities for mixed uses and public spaces. As an at-grade system, typically running within existing roadways and streets, it offers an opportunity to improve the visual quality of the streetscape and enhance the pedestrian experience. There will be a greater sense of visual order and unity because of the physical improvements and landscape treatments along the alignment. There will be special paving at crosswalks, street lighting, banners, street furniture, and plantings along the entire corridor, which will reinforce the character of the area and provide a visual sense of place.

In comparison, the TSM Alternative would have minimal visual impact, because transportation elements that would be most visually apparent would be sound barriers and transit centers. The No-Build Alternative would have little or no visual impact.

Some of the In-Town BRT stops would be located in areas with high visual or aesthetic value for several reasons, such as urban landscaping, cultural surroundings, open space, public and institutional establishments and environmental characteristics. Mitigation measures for these impacts are described in Section 5.4.2.

1) No-Build Alternative

The No-Build Alternative would not involve additional construction; therefore, no impacts on visual resources would occur.

2) TSM Alternative

Most proposed improvements are limited to existing roadways such as the H-1 Freeway; therefore, there would be little or no visual change.

3) Refined LPA

Transit centers/transit stops and road widening elements may have some visual impacts. Other structures such as bus ramps would not be visually intrusive to the existing surrounding views.

Transit centers and park-and-ride lots will include passenger shelters, street furniture, light standards, landscaping and in some cases passenger and community oriented retail and public facilities. These elements will be designed to be appropriate in each setting and could, in some cases, enhance the aesthetics of the area. Most transit centers will not be located in visually sensitive areas.

The Kapolei Transit Center and the North-South Road Park-and-Ride will occur in areas that are not yet fully urbanized, but will be increasingly urbanized in the next 5 to 20 years. This transit center and park-and ride lot will feature passenger shelters, street furniture, lighting, landscaping, and canopy trees. These elements could help to enhance the visual order of these areas, without disrupting existing mauka views.

Some transit stops will be located in or near visually sensitive areas. Special Districts have visual resources valued by visitors and residents; therefore, design of the transit system will be handled carefully through these areas. Kapiolani Boulevard will have some median and curbside transit stops. These canopied waiting areas will vary depending on the surrounding neighborhood but in general will look like the typical stops pictured in Figure 2.2-4. The In-Town BRT stops in the Chinatown, Thomas Square/Academy of Arts, and Hawaii Capital Special Districts will be designed so that none of the elements affect views of any important landmarks. The transit stop planned near the Duke Kahanamoku Statue on Kalakaua Avenue, also will not block views of the statue.

At the Working Group (See Section 1.0.) meetings, the participants brainstormed about the elements the BRT transit stops should include. Based on these sessions, the technical staff developed representative concepts for several of the transit stops and other visually important locations. These can be seen in Figures 5.4-1 through 5.4-10.

Other sensitive areas where transit stops are planned include the following, and therefore, transit stops in or near these areas may require special design treatment, which may also involve consultation with organizations that care for these resources:

- Downtown
- Waikiki Special District
- Hawaii Convention Center
- UH-Manoa
- Ala Moana Park
- Kalia Road in Fort DeRussy
- Along Kalakaua Avenue
- Kapiolani Park (including Honolulu Zoo)
- Makai Gateway Park

A new reversible bus ramp will be built to the H-1 Freeway off of Luapele Drive to serve the proposed Aloha Stadium Transit Center. The ramp would be constructed underneath the H-1 Freeway Viaduct in Halawa between existing piers and would partially be a tunnel. It would not create a new visual intrusion on the landscape.

To mitigate the noise impacts of the Aloha Stadium Transit Center on the Puuwai Momi residential complex (see noise impact discussion in Section 5.6), a sound wall will be erected along the existing fence line of the apartment complex on Salt Lake Boulevard at Kamehameha Highway. The wall would be a solid structure roughly 410 feet long and 10 feet high. Figure 5.4-11 is a visual rendering of how the sound wall could look; however, the noise wall will be designed in the next project phase – final design – which would include public input.

UH-bound station location on the makai side of King Street.

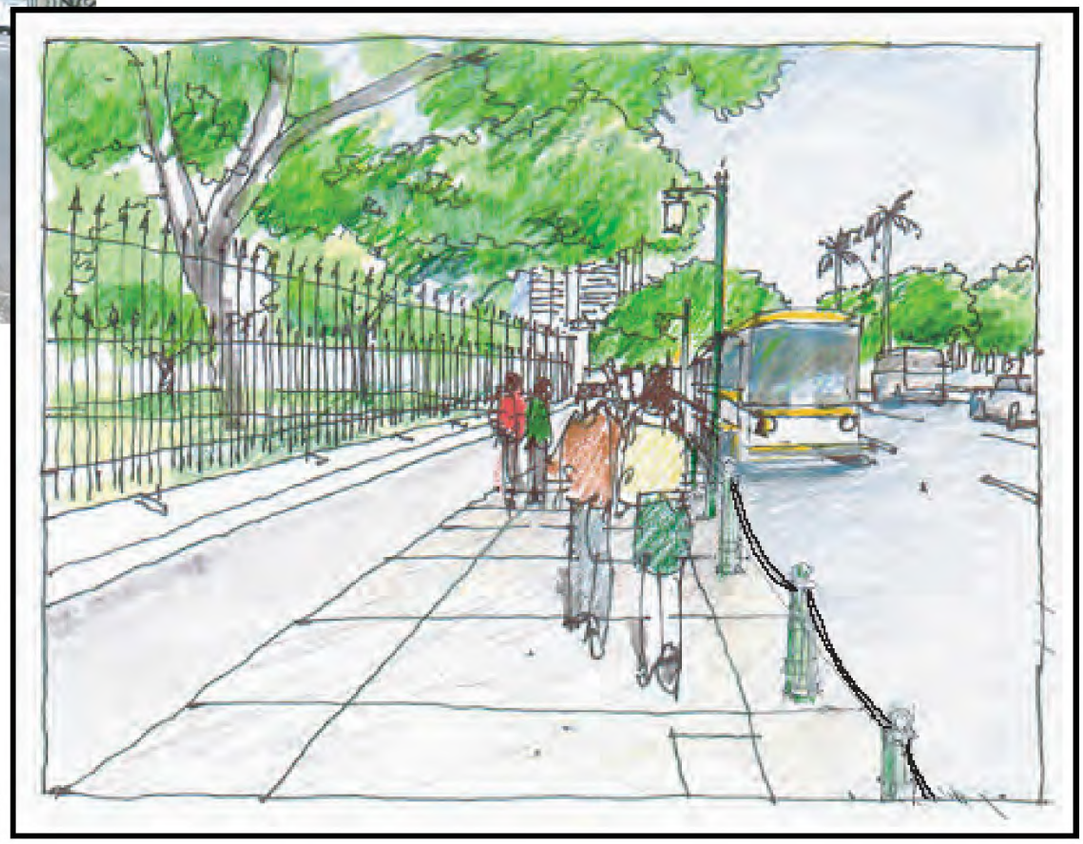
Light and transparent canopies arranged to create a small courtyard under existing monkeypod trees.

SOURCE:
Urban Works, 2001.

Iolani Palace (Post Office) Transit Stop Concept

Figure 5.4-1

Mauka sidewalk looking towards Kawaiahao Church.



A safety barrier at the curb using bollards.

SOURCE:
Urban Works, 2001.

Refined LPA Pedestrian Improvements in Front of Iolani Palace

Figure 5.4-2

Station location in front of Hawaii State Library.

Sculpted landforms create a pleasant waiting area, adding to the usefulness of the great lawn.

SOURCE:
Urban Works, 2001.

Iolani Palace (State Library) Transit Stop Concept

Figure 5.4-3

Kapiolani Boulevard looking toward the Convention Center.

Conceptual sketch of the UH-bound BRT stop.

SOURCE:
Urban Works, 2001.

Ala Moana/Keeaumoku Transit Stop Concept

Figure 5.4-4

Existing conditions leading to Ala Moana Center.

Conceptual sketch of median station platform with access via Kapiolani crosswalk to Ala Moana Center Promenade.

SOURCE:
Urban Works, 2001.

Ala Moana/Keeaumoku Transit Stop Concept

Figure 5.4-5

UH-bound curb-side station at
Puck's Alley retail.

BRT canopy integrated with
adjacent uses to provide
a shaded arcade that fronts shops
and eateries and creates
a gathering place for pedestrians
as well as transit riders.

SOURCE:
Urban Works, 2001.

University/King (Puck's Alley) Transit Stop Concept

Figure 5.4-6

The Sinclair Circle BRT stop is located along the edge of the existing "half circle" drive.

Roof canopy attached to a curving and continuous screen wall, connected to student gathering places beyond station.

SOURCE:
Urban Works, 2001.

UH-Manoa (Sinclair Circle) Transit Stop Concept

Figure 5.4-7

View of Discovery Bay at Ala Moana Blvd. and Hobron Lane.

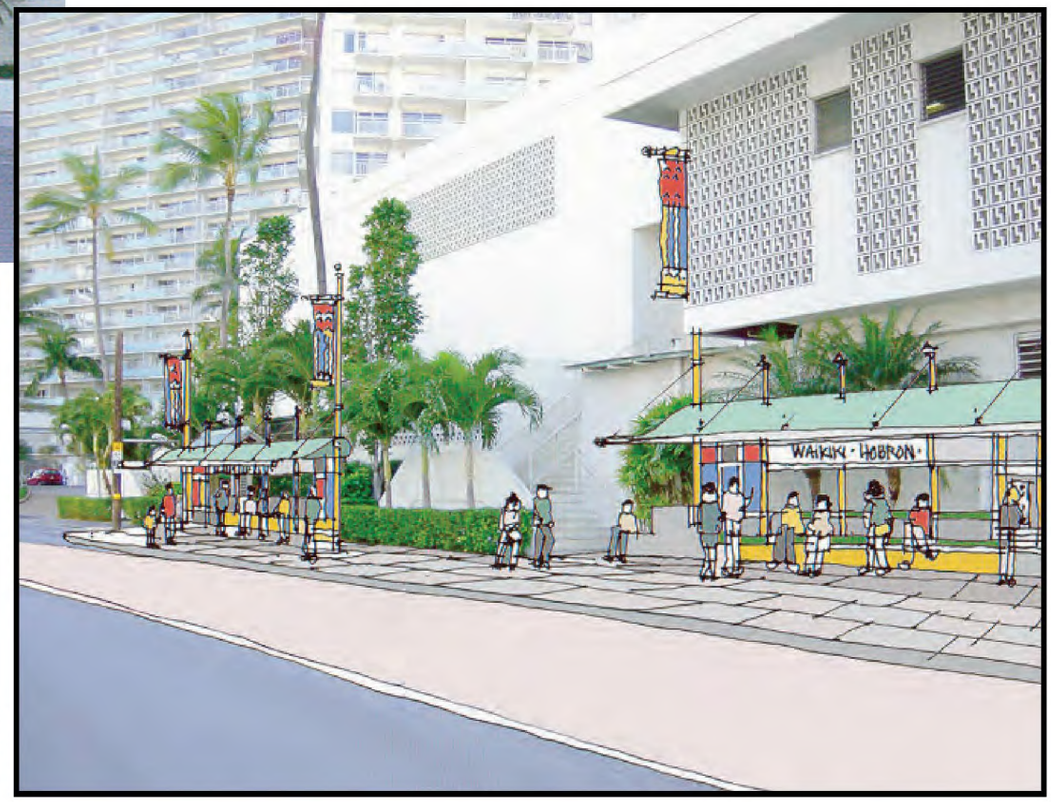
BRT canopies fronting the Discovery Bay retail facade would be located to work with entrances and allow visual connections.

SOURCE:
Urban Works, 2001.

Hobron (Ilikai) Transit Stop Concept

Figure 5.4-8

View of Ilikai at Ala Moana Blvd. and Hobron Lane.



BRT canopies fronting the Ilikai Hotel may be recessed against the setback building faces.

SOURCE:
Urban Works, 2001.

Hobron (Ilikai) Transit Stop Concept

Figure 5.4-9

View of Miramar at Waikiki Hotel at Walina St. and Kuhio Avenue.

Sidewalks would be widened and bus stops would be at curbside turnouts along Kuhio Avenue.

SOURCE:
Urban Works, 2001.

Kuhio Avenue Transit Stop Concept

Figure 5.4-10

With Proposed Sound Wall

Existing

SOURCE:
Urban Works, 2002.

	Visual Rendering of Sound Wall at Puuwai Momi Apartments (View From Salt Lake Boulevard)	Figure 5.4-11

5.4.2 Mitigation

All project elements potentially causing visual impacts will be designed and landscaped to have the least possible negative visual effect. Project elements such as transit centers and transit stops will be designed to visually blend in with their surroundings.

The physical appearance of transit stops located in Special Districts will be determined during final design. Chinatown, the Capitol District, Thomas Square, Kapiolani Boulevard, Waikiki Beach, Kapiolani Park and UH-Manoa are considered potentially sensitive areas for transit stops. Stops will be designed to blend in with their surrounding contexts, based on public input and conformance with appropriate design standards. Effective planning with area businesses, residents, and agencies will result in design features unique to each area. For example, the transit stop at Kalakaua Avenue and Uluniu Avenue, will be designed to blend in with the recent Kuhio Beach improvements by using similar materials and design treatments. This stop will be a discreetly designed stop so as not to obstruct the view of the Duke Kahanamoku Statue and the ocean from the street.

5.5 AIR QUALITY

This section describes the potential air quality impacts of the No-Build and TSM Alternatives and the Refined LPA. Sections 5.5.1 and 5.5.2 provide descriptions of both the regional (i.e., Honolulu-wide) and microscale, or "hotspot," air quality impacts of the alternatives, respectively. The analytical methods used to predict the impacts described in these sections are accepted by the U.S. Environmental Protection Agency (EPA) and the State of Hawaii Department of Health (HDOH). Section 5.5.3 discusses project conformity with the Statewide Implementation Plan.

The results of the regional analysis indicate that the No-Build Alternative would be expected to worsen regional air quality by approximately 12 percent as a result of more vehicles using the roadway system and increasing congestion. However, this impact would be partially offset by reductions in vehicle emissions per vehicle over time. The Refined LPA would improve regional air quality over the No-Build Alternative by about 21 percent.

At the microscale level, selected intersections representative of the primary transportation corridor were analyzed based on current and future No-Build and TSM Alternatives and the Refined LPA. Under current traffic and worst case meteorological conditions, carbon monoxide (CO) concentrations at most of these intersections are estimated to exceed the State Ambient Air Quality Standards. Under the No-Build Alternative, TSM Alternative, and the Refined LPA, most of the intersections are also predicted to experience higher CO concentrations. In comparing these future scenarios, CO concentrations would be better at some intersections and worse at others. On average, the TSM and Refined LPA Alternatives would not worsen air quality conditions compared to the No-Build Alternative, and there would be little difference between the build alternatives.

Section 5.5.4, discusses how the use of low or zero emission vehicles by the In-Town BRT under the Refined LPA would represent an improvement in terms of microscale air quality over the use of conventional diesel buses under the No-Build and TSM Alternatives for many of the urban core routes.

5.5.1 Regional (Mesoscale) Analysis

It is estimated that the daily total vehicle miles traveled (VMT) would increase from approximately 12.9 million in 2000 to approximately 17.6 million by the year 2025 under the No-Build Alternative. This represents a VMT increase of about 36 percent. Since the roadway network capacity in the project study area with all of the alternatives is not expected to increase at the same growth rate as VMT, it is expected that average travel

speeds will decrease as a result of the added VMT and traffic congestion. Therefore, daily vehicle hours of delay (VHD) is estimated to increase from approximately 202,400 hours in 2000 to approximately 451,700 hours by the year 2025 under the No-Build Alternative, which is about a 123 percent increase. Average travel speeds are projected to drop from 25.7 mph in 2000 to 20.6 mph in 2025 with the No-Build Alternative. As shown in Table 5.5-1, the composite emission factors increase substantially with decreasing vehicle travel speed. The increase in emissions that would be expected from the decrease in travel speed would be partially offset by a reduction in emissions per vehicle over time.

TABLE 5.5-1
COMPOSITE EMISSION FACTORS FOR
PRIMARY CORRIDOR TRANSPORTATION PROJECT

Vehicle Travel Speed (mph)	Composite Emission Factor (grams per vehicle mile)					
	2000			2025		
	Hydro-carbons	Carbon Monoxide	Nitrogen Oxides	Hydro-carbons	Carbon Monoxide	Nitrogen Oxides
10	5.6	48.6	2.6	4.5	44.2	2.2
15	4.2	36.6	2.4	3.5	34.6	2.0
20	3.4	30.2	2.3	2.9	29.2	1.9
25	2.9	24.1	2.3	2.4	22.5	1.9

Source: U.S. EPA MOBILE5A Emission Factor Model.

As was presented in Chapter 4, total VMT estimates for the Refined LPA are 4.1 percent lower than the estimated total VMT for the No-Build Alternative. The 2025 VHD estimate for the Refined LPA is about 17 percent lower than the No-Build Alternative VHD. As a result, mesoscale emissions for the Refined LPA are expected to be substantially less than for the No-Build Alternative. Average speeds are projected to be lower and VHD is projected to be even higher with the TSM Alternative than with the No-Build Alternative, which means that mesoscale emissions would be higher than the No-Build Alternative and Refined LPA as well.

5.5.2 Microscale Analysis

Microscale, or "hot spot", air quality impact analyses of the present conditions and year 2025 conditions under the No-Build Alternative, TSM Alternative, and the Refined LPA were performed at 23 intersections, using computer models to predict future carbon monoxide (CO) concentrations. These intersections, which were selected for analysis because they generally represent all intersections that would be affected by the project, are expected to experience peak CO concentrations. The microscale impact analyses involved assessing worst-case CO concentrations near all 23 selected intersections within the project area for both 1-hour and 8-hour averaging periods. These averaging periods correspond to the averaging times included in the State and the national AAQS.

Under worst-case methodology conditions, all three alternatives would result in CO concentrations above the stringent State ambient air quality standards at most locations or intersection studies. However, it should be noted that the predicted concentrations are probably conservatively high for all scenarios. This result is because EPA's projections for emissions from motor vehicles have generally been revised downward since these studies were originally completed.

The CO concentrations estimated for the present or existing condition shown on Table 5.5-2 represent the results of quantitative analysis, not actual air quality monitoring. Six of the locations were not analyzed under the existing condition. The highest analyzed worst-case 1-hour concentration for the existing scenario is 21.7 mg/m^3 during the morning peak-traffic hour near the intersection of South King Street and Punchbowl Street. One-hour values for other locations and times under the existing condition range from 3.6 mg/m^3 during the afternoon at the intersection of Hotel Street and Bishop Street to 19.6 mg/m^3 during the morning near the intersection of Nimitz Highway and Sand Island Access Road. While the estimated worst-case

TABLE 5.5-2
ESTIMATED WORST-CASE 1-HOUR CARBON MONOXIDE CONCENTRATIONS NEAR SELECTED INTERSECTIONS WITHIN THE PROJECT AREA
(milligrams per cubic meter)

Roadway Intersection	Present (1999)		Year 2025 Alternative					
			No-Build		TSM		Refined LPA	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Kahuapaani Street / Salt Lake Blvd.	NA	NA	12.6	14.4	12.6	14.4	12.0	14.2
Luapele Drive / Salt Lake Boulevard	NA	NA	9.2	9.8	9.2	9.8	9.1	9.3
N. King Street / Kalihi Street	15.4	14.6	16.7	17.4	16.2	15.6	17.2	17.9
Dillingham Boulevard / Kalihi Street	11.3	11.7	14.7	14.4	14.7	14.4	13.3	12.9
S. King Street / Bishop Street	17.6	13.8	26.1	19.3	28.9	20.4	23.9	17.7
Hotel Street / Bishop Street	6.1	3.6	8.3	4.7	7.1	5.0	14.2	9.0
S. King Street / Punchbowl Street	21.7	15.0	19.1	16.7	17.9	16.9	16.9	17.9
S. King Street / Ward Avenue	NA	NA	12.3	12.9	12.3	12.9	11.2	13.9
S. King Street / Pensacola Street	NA	NA	12.9	14.3	12.9	14.3	12.2	11.8
Kapiolani Boulevard / Pensacola Street	NA	NA	10.9	11.0	11.6	10.7	11.7	10.6
Kapiolani Boulevard / Kalakaua Avenue	18.8	13.3	20.4	16.4	19.6	16.4	20.4	16.4
S. King Street / Beretania Street / University Avenue	18.8	17.1	18.4	15.5	17.4	15.0	19.1	18.5
Dole Street / University Avenue	19.1	14.4	12.6	12.1	12.9	12.1	13.0	11.6
Nimitz Hwy. / Sand Island Access Road	19.6	16.8	20.0	16.8	19.9	16.8	15.4	13.6
Nimitz Highway / Waiakamilo Rd.	15.2	15.0	17.0	13.1	17.0	13.3	12.9	10.6
Ala Moana Blvd. / Richards Street	NA	NA	10.0	12.3	10.0	12.3	8.9	10.2
Ala Moana Boulevard / South Street	12.3	10.2	11.3	10.4	13.0	10.1	11.3	9.2
Ala Moana Boulevard / Atkinson Drive	17.1	15.4	17.8	19.7	17.8	19.7	16.1	17.8
Ala Moana Boulevard / Kalia Road	13.5	13.0	13.1	12.8	13.1	12.8	12.6	15.4
Kalakaua Avenue / Kaiulani Avenue	5.1	5.0	6.6	7.1	7.1	7.5	5.4	5.6
Kalakaua Avenue / Kapahulu Avenue	10.4	9.1	3.6	3.4	3.4	3.4	3.4	3.4
Kuhio Avenue / Kapahulu Avenue	9.0	6.2	7.7	7.9	7.7	7.9	7.2	7.7
Kuhio Avenue / Seaside Avenue	7.7	7.0	11.4	12.3	11.4	12.3	10.6	9.6

Source: B.D. Neal & Associates, 1999, 2001, and 2002.

Notes: NA: Not Analyzed
Hawaii AAQS: 10 mg/m^3 (9.5 ppm).
National AAQS: 40 mg/m^3 (35 ppm).
Underline indicates worst-case condition exceeds Hawaii AAQS.

concentrations for all locations and periods under the 1999 scenario are in compliance with the national 1-hour AAQS of 40 mg/m^3, the analyzed values exceed the more stringent State 1-hour AAQS of 10 mg/ m^3, except at the intersections of Hotel Street and Bishop Street, Kalakaua Avenue and Kaiulani Avenue, Kuhio Avenue and Kapahulu Avenue, and Kuhio Avenue and Seaside Avenue.

Under the No-Build Alternative, worst-case 1-hour concentrations are predicted to increase at eight locations analyzed under the existing condition. Under this alternative, the highest worst-case 1-hour value (26.1 mg/m^3) is predicted to occur near the intersection of South King Street and Bishop Street during the morning. Concentrations at other locations and times range between 3.4 mg/m^3 and 20.4 mg/m^3. Eighteen of the 23 locations studied are predicted to potentially exceed the State AAQS. However, none are predicted to exceed the national AAQS.

Under the TSM Alternative, worst-case 1-hour concentrations are predicted to remain relatively unchanged, when compared to the No-Build Alternative. Similar to the No-Build Alternative, the highest worst-case 1-hour concentration is predicted to occur near the intersection of South King Street and Bishop Street during the morning, at 28.9 mg/m^3. This is predicted to be the highest 1-hour value amongst all of the alternatives and locations studied. Eighteen of the 23 locations studied are predicted to potentially exceed the State AAQS. However, none are predicted to exceed the national AAQS.

Under the Refined LPA, worst-case 1-hour concentrations at most of the locations studied are predicted to be about the same as those under either the No-Build or the TSM Alternatives. Of the 23 intersections studied, 16 would experience reduced concentrations under the Refined LPA compared to the No-Build alternative during the AM peak hour, while five intersections would see increases, and two intersections would see no change. The change in concentrations during the PM peak hour would be similar with 15 intersections showing a decrease, six showing an increase, and two with no change. As shown in Table 5.5-2, nineteen of the 23 locations studied may exceed the State AAQS. None of the locations are predicted to exceed the national AAQS.

The estimated worst-case 8-hour concentrations at the 23 study locations under the four scenarios are shown in Table 5.5-3. Under existing conditions, modeled worst-case 8-hour concentrations range from 2.6 to 10.8 mg/m^3, with the highest value occurring at the intersection of South King Street and Punchbowl Street. As noted above, the existing condition concentrations represent the results of a quantitative analysis, not actual monitoring, and six of the locations were not analyzed. Thirteen of the locations were estimated to exceed the State AAQS. One of the locations (South King Street at Punchbowl) was estimated to exceed the national AAQS, but other locations are in compliance with the national AAQS by a small margin.

Under the No-Build Alternative, concentrations are predicted to increase at 10 locations analyzed under the existing condition. The predicted worst-case concentrations range from 1.8 to 13 mg/m^3. The predicted concentrations at 18 of the 23 locations studied would exceed the State AAQS, and predicted concentrations at three locations would exceed the national AAQS.

Under the TSM Alternative, the predicted worst-case 8-hour concentrations would remain about the same as the No-Build Alternative. The highest worst-case concentration would be 14.4 mg/m^3, which would occur at the intersection of South King Street and Bishop Street. Predicted concentrations would exceed the State AAQS at 18 of the 23 locations studied, and predicted concentrations at two locations would exceed the national AAQS.

Under the Refined LPA, the predicted worst-case 8-hour concentrations at the 23 representative locations would remain about the same as either the No-Build or TSM Alternatives. However, CO 8-hour concentrations at five locations are predicted to be higher under the Refined LPA than under either the No-Build or TSM Alternatives. The differences at the five intersections are small and within the accuracy limits of the model. The differences between the Refined LPA and the No-Build or TSM Alternatives reflect some additional queuing

TABLE 5.5-3
ESTIMATED WORST-CASE 8-HOUR CARBON MONOXIDE CONCENTRATIONS NEAR SELECTED INTERSECTIONS WITHIN THE PROJECT AREA
(milligrams per cubic meter)

Roadway Intersection	Present (1999)	Year 2025 Alternative		
		No-Build	TSM	Refined LPA
Kahuapaani Street / Salt Lake Boulevard	NA	7.2	7.2	7.1
Luapele Drive / Salt Lake Boulevard	NA	4.9	4.9	4.6
N. King Street / Kalihi Street	7.7	8.7	8.1	9.0
Dillingham Boulevard / Kalihi Street	5.8	7.4	7.4	6.6
S. King Street / Bishop Street	8.8	13.0*	14.4*	12.0*
Hotel Street / Bishop Street	3.0	4.2	3.6	7.1
S. King Street / Punchbowl Street	10.8*	9.6	9.0	9.0
S. King Street / Ward Avenue	NA	6.4	6.4	7.0
S. King Street / Pensacola Street	NA	7.2	7.2	6.1
Kapiolani Boulevard / Pensacola Street	NA	5.5	5.8	5.8
Kapiolani Boulevard / Kalakaua Avenue	9.4	10.2*	9.8	10.2*
S. King Street / Beretania Street / University Avenue	9.4	9.2	8.7	9.6
Dole Street / University Avenue	9.6	6.3	6.4	6.5
Nimitz Highway / Sand Island Access Road	9.8	10.0*	10.0*	7.7
Nimitz Highway / Waiakamilo Road	7.6	8.5	8.5	6.4
Ala Moana Boulevard / Richards Street	NA	6.2	6.2	5.1
Ala Moana Blvd. / South St.	6.2	5.6	6.5	5.6
Ala Moana Boulevard / Atkinson Drive	8.6	9.8	9.8	8.9
Ala Moana Boulevard / Kalia Road	6.8	6.6	6.6	7.7
Kalakaua Avenue / Kaiulani Avenue	2.6	3.6	3.8	2.8
Kalakaua Avenue / Kapahulu Avenue	5.2	1.8	1.7	1.7
Kuhio Avenue / Kapahulu Avenue	4.5	4.0	4.0	3.8
Kuhio Avenue / Seaside Avenue	3.8	6.2	6.2	5.3

Source: B.D. Neal & Associates, 1999, 2001, and 2002.
Notes: NA: Not Analyzed
Hawaii AAQS: 5 mg/m^3 (4.5 ppm).
National AAQS: 10 mg/m^3 (9 ppm).
Underline indicates worst-case condition exceeds Hawaii AAQS.
Asterisk indicates worst-case condition exceeds National AAQS.

that would result with the Refined LPA. Predicted concentrations would exceed the State AAQS at 19 of the 23 study locations, and the predicted concentration at one location would exceed the national AAQS.

On average, the TSM Alternative and Refined LPA would not worsen regional air quality in comparison to the No-Build Alternative. Therefore, no mitigation is proposed since the overall situation across the project area would improve with the Refined LPA. Under worst-case meteorology conditions, CO concentrations are predicted to exceed both the State and national standards at various locations under existing conditions and all of the future alternatives. Concentrations under the TSM Alternative and Refined LPA would be worse than under the No-Build Alternative at some locations and better at others. However, it should be noted that the predicted concentrations are probably conservatively high for all scenarios. This is because EPA's projections for emissions from motor vehicles have generally been revised downward since these studies were completed. The EPA computer model MOBILE5A was used for the microscale analyses (see Tables 5.5-2 and 5.5-3). EPA has developed an updated model, MOBILE6. A preliminary assessment of the analyzed intersections indicates that the newer model would result in lower concentrations for all three alternatives.

5.5.3 Conformity with Statewide Implementation Plan

The Regional and In-Town BRT are included in the Oahu regional transportation plan (TOP 2025). The Oahu Metropolitan Planning Organization adopted the TOP 2025 on April 6, 2001. The projects listed in the TOP 2025 have been evaluated for regional effects. The Primary Corridor Transportation Project is also included in the current Statewide Transportation Improvement Program (STIP) for Fiscal Years 2000-2002, approved in September 2001. As a result, this project is in conformance with the Statewide Implementation Plan (SIP). Oahu is a region that meets the standards for all air quality criteria.

5.5.4 Quality of Life

Air quality often affects the quality of urban life. In urban areas, emissions from motor vehicles, industrial facilities, and construction sites are the primary sources of air pollution. Motor vehicles in particular are the primary causes of poor air quality in many cities because they emit such pollutants as carbon monoxide, nitrogen oxides, and hydrocarbons.

Conventional diesel buses emit higher levels of particulate matter (black smoke) than gasoline-powered motor vehicles. While the total amount of particulate matter generated by buses is a small percentage of the total generated on a regional scale, it does contribute to the nuisance of smoke and soot along the curbside. Despite recent reductions in particulate levels from diesel buses, and the fact that emissions are exhausted at roof level rather than at street level, these particulate emissions can still be very annoying to people. In addition, the California Air Resources Board has identified diesel soot as a potential carcinogen. Diesel exhaust most easily enters the body by breathing, but may also cling to skin or hair and thereafter may be ingested as a consequence of hand-to-mouth activity. Therefore, since pedestrians utilizing the same streetscape as the transit system would be exposed to particulate matter emitted by passing buses, there is some level of health risk from the pedestrian perspective.

Technologies proposed for the Refined LPA include electric vehicles powered by a wayside traction power delivery system (embedded plate technology) or hybrid electric vehicles where the energy for the traction power is carried on-board the vehicle. The EPT vehicles would emit zero emissions. The hybrid electric vehicles would be low-emission vehicles because their diesel engines would always be operating at efficient levels. (The black smoke coming from the exhaust of a diesel bus typically occurs when the bus is accelerating and under slow-speed high-load conditions - non-optimal operating conditions). The No-Build and TSM Alternatives would use conventional diesel-powered buses, at least for the immediate future.

Since the Refined LPA would utilize either zero or low-emission vehicles, it would substantially reduce the level of particulate emissions (black smoke and soot) at certain intersections and street level locations in comparison to the No-Build and TSM Alternatives, which would continue to utilize conventional diesel buses. Unfortunately, there is no acceptable method or model to estimate the microscale impacts of particulate matter. There are accepted methods to estimate particulate matter on a regional scale. However, it is likely that the regional difference between the Refined LPA, and the No-Build and TSM Alternatives would be very small or non-existent because the reduction in particulate matter due to the replacement of some of the transit diesel buses with zero or low-emission vehicles would represent a very small percentage of the total particulate emissions in the region. However, the replacement of diesel buses with zero or low-emission vehicles would certainly reduce smoke and soot at the street level along the transit alignment, which would improve the pedestrian experience. Therefore, the Refined LPA would contribute more to improving the quality of urban life than the No-Build and TSM Alternatives.

5.6 NOISE AND VIBRATION

This section covers the noise and vibration impacts of the proposed alternatives including measures to mitigate noise impacts. Section 5.6.1 provides the methodology of the noise impact evaluation performed in conformance with the requirements of FTA and FHWA. Sections 5.6.2 and 5.6.3 disclose the noise and vibration impacts of the alternatives and proposed mitigation measures. Section 5.6.4 provides a discussion of noise levels in relation to the quality of urban life, with particular reference to the difference between conventional diesel buses and electric or hybrid buses with diesel/electric propulsion.

In general, the future noise levels along the alignment of the In-Town BRT would be lower than under the TSM or No-Build Alternatives because many of the future transit operations will use electric or hybrid electric vehicles, which produce substantially less noise than standard diesel buses. The amount of vibration produced by these vehicles is lower but not much different than standard diesel buses.

5.6.1 Methodology for Impact Evaluation

This section describes the methodology used for impact evaluation, in accordance with Federal and State requirements.

1) Transit Noise

The proposed BRT vehicles will be a single-articulated, low-floor electrically powered or hybrid electric buses. No overhead catenary or steel rail would be required. Electric powered vehicles would be supplied power from a wayside system referred to as an embedded plate system. Hybrid electric buses would be electrically propelled vehicles in which the electricity is produced by an on-board generator (alternator) powered by a diesel engine; electric propulsion would be provided by on-board batteries.

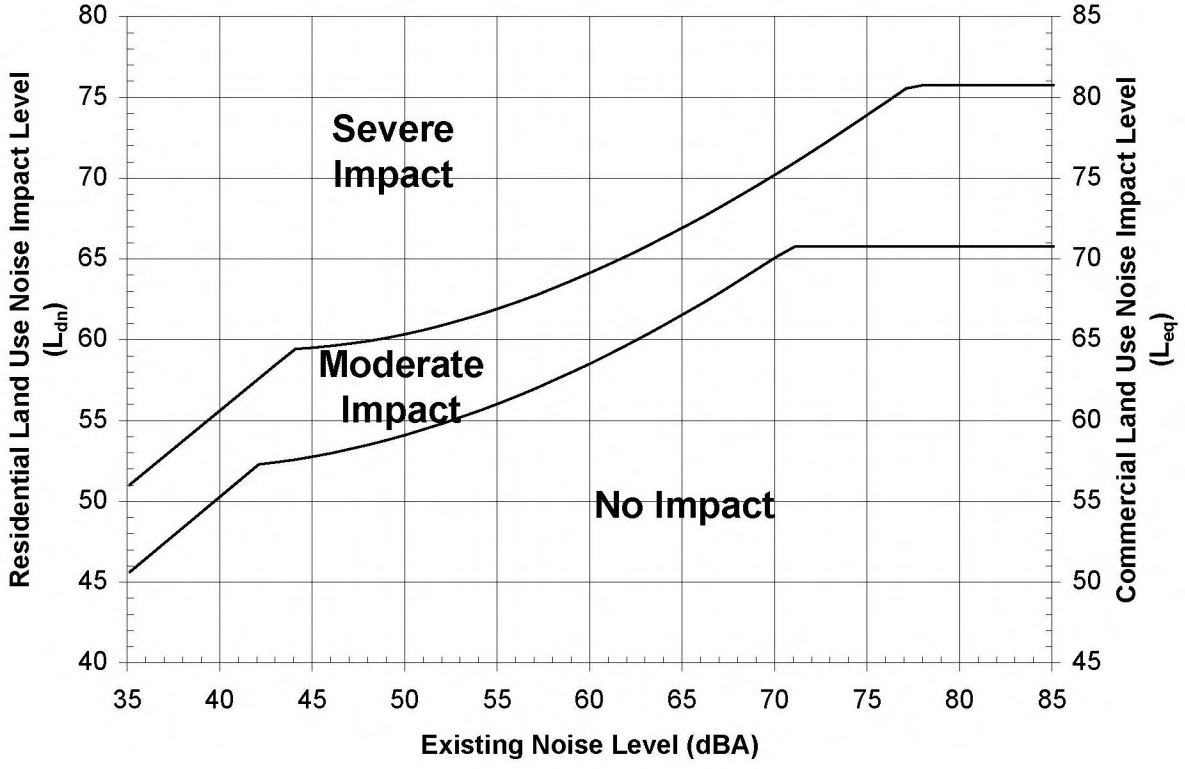
Noise levels from transit vehicle operations are typically a function of the speed, number of vehicles in the daytime and nighttime hours, and the distance from the transit lane to sensitive receptors. Because noise measurement data for the hybrid bus was not available at the time of this analysis, an estimated emission level was developed for the hybrid vehicle based on the FTA city bus reference sound levels. This estimate was used to model the potential noise impact of operating the hybrid vehicle in the Refined BRT Alternative. The FTA city bus reference level was reduced by 3 dBA to account for the constant speed operation of the diesel engine, which would be used to charge the alternator/batteries and not to power the vehicle directly. During acceleration and deceleration operations, diesel engine vehicles generate 5 dBA to 6 dBA higher noise levels than during passby operations when the engine is not operating under a sustained load. The other vehicle proposed is a wayside powered electric bus that would be similar to a rubber-tired Automated Guideway Transit (AGT) vehicle. The FTA noise reference level of an AGT was used to represent the operating noise levels of this type of vehicle.

The transit noise analysis for this project was performed in six steps:

- Inspect project area and categorize existing land use;
- Measure the existing area noise levels;
- Calculate the project-related noise levels;
- Combine the project related noise levels with the existing noise levels;
- Compare the change in noise levels to the FTA criteria; and
- Identify impacts and investigate mitigation measures.

The In-Town BRT transit noise levels were compared to the impact thresholds of the FTA criteria. The FTA criteria for residential land use and other uses with nighttime sleep activities are presented in Figure 5.6-1, which identifies the ranges of no impact, moderate impact, and severe impact for varying levels of existing and project-created noise. The criteria are based on either a 24-hour Ldn noise level for residences and buildings where people normally sleep, or a one-hour Leq noise level for land uses and buildings with primarily daytime activities. FTA requires that mitigation be evaluated for all areas where moderate impacts are projected, although consideration of factors such as cost-effectiveness can be incorporated into the decision about whether to specify mitigation for a particular area. FTA considers a severe impact to be a "significant adverse effect" under NEPA. Noise mitigation will normally be specified for severe impact areas, unless there is no practical method of achieving a reduction in noise level.

FIGURE 5.6-1
FTA NOISE IMPACT CRITERIA



2) Transit Vibration

As a rubber tired vehicle, ground vibration levels from the electric or hybrid electric buses would be minimal, and would not exceed the FTA criteria of 72 VdB for residential buildings and other structures where people normally sleep (Category 2) (see Table 5.6-1). There is no known land use along the alignment that has vibration-sensitive equipment and would be subject to lower vibration impact criteria.

TABLE 5.6-1
FTA GROUND-BORNE VIBRATION IMPACT CRITERIA

Land Use Category	Ground-borne Vibration Impact levels (VdB re 1 micro inch/sec)	
	Frequent Events[1]	Infrequent Events[2]
Category 1: Buildings where low ambient vibration is essential for interior operations.	65VdB[3]	65VdB[3]
Category 2: Residences and buildings where people normally sleep.	72 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	83 VdB

Source: Transit Noise and Vibration Impact Assessment, FTA, April, 1995.
Notes: [1] "Frequent Events" is defined as more than 70 vibration events per day.
[2] "Infrequent Events" is defined as fewer than 70 vibration events per day.
[3] This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

5.6.2 Noise Impacts

The following discussion analyzes the noise impacts that would arise from the transit elements of the proposed project for both the hybrid electric bus and the wayside-powered electric bus. Only those monitoring sites that lie on the proposed alignment are included in the discussion below.

Table 5.6-2 summarizes existing and projected transit noise levels for both the electric and hybrid electric vehicles at 31 noise monitoring locations along the In-Town BRT alignment (see Figures 3.6-3A and 3.6-3B). Noise impacts discussed below are defined by the FTA as either no impact, moderate, or severe.

1) No-Build Alternative

The only source of future noise levels would be traffic movements on the local arterials in the project area. Changes in 2025 automobile traffic are expected to result in no change to a one dBA increase in the existing 24-hour (Ldn) and peak hour (Leq) noise levels at each of the 31 noise measurement sites.

Under the No-Build Alternative, future local bus volumes would be different from existing local bus volumes. Increases in local bus volumes under the No-Build Alternative would raise existing noise levels by 1 to 2 dBA at noise measurement locations 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 17, 18, D, E, F, G, I, J, K and M. Decreases in local bus volumes under the No-Build Alternative would lower existing noise levels by 1 to 3 dBA at noise measurement locations 1, 13, 16, A, B, and L. These changes in noise level would be barely perceptible to most people. At the remaining noise measurement locations – sites 2, 14, 15, C, and H – there would be no change in noise levels associated with changes in local bus volumes.

TABLE 5.6-2
REFINED LPA
ESTIMATED FUTURE NOISE LEVELS AT REPRESENTATIVE SENSITIVE LAND USES

						REFINED LPA		
Site No.	Location	FTA Land Use Category (1,2,3)	Existing Noise Level[1] (dBA)	No-Build Noise Level (dBA)	TSM Noise Level[2] (dBA)	Project Generated Noise (dBA)	Combined Noise Level – Existing + Project Generated (dBA)	FTA Level of Noise Impact[5]
1	Bishop Garden Apartments at 1470 Dillingham Boulevard	2	66	66	67	65[3]/59[4]	68[3]/67[4]	Moderate/ No Impact
2	2386 Kapiolani Boulevard	2	74	74	75	52/46	74/74	No impact
3	845 University Avenue	2	69	70	70	52/46	69/69	No impact
4	Apartment Building, 1720 Ala Moana Boulevard	2	77	78	78	56/50	77/77	No impact
5	Saratoga Road at Post Office	2	66	67	67	57/51	67/66	No impact
6	Apartments on Kuhio Avenue between Launiu & Kaiolu Streets	2	76	78	77	59/53	76/76	No impact
7	Outrigger Waikiki Islander Hotel	2	70	71	71	55/49	70/70	No impact
8	Waikiki Banyan Hotel	2	72	74	73	62/56	72/72	No impact
9	Queen Kapiolani Hotel on Kapahulu Avenue at Cartwright Road	2	70	72	71	55/49	70/70	No impact
10	Apartment Building, 1350 Ala Moana Boulevard	2	73	74	74	60/54	73/73	No impact
11	Executive Center at Hotel and Bishop Streets	2	77	78	78	57/51	77/77	No impact
12	Residences on King Street	2	66	68	67	56/50	66/66	No impact
13	1122 Elm Street Apartment on Pensacola Street	2	74	71	75	53/47	74/74	No impact
14	Harbor Square Condominiums – Ala Moana Boulevard side	2	76	76	77	59/53	76/76	No impact
15	Harbor Square Condominiums – Alakea Street side	2	73	73	74	55/49	73/73	No impact
16	Nakama Residence (near Blood Bank)	2	77	76	78	63/57	77/77	No impact
17	Chinatown Gateway Apartments	2	73	74	74	57/51	73/73	No impact
18	Straub Hospital	2	75	77	76	56/50	75/75	No impact
A	Kalihi Kai Elementary School	3	69	68	70	58/52	69/69	No impact
B	Honolulu Community College	3	72	71	73	60/54	72/72	No impact
C	Aala Park on King Street	3	68	68	69	61/55	69/68	No impact
D	Chinatown Gateway Park at Hotel and Bethel Streets	3	73	74	74	65/59	74/73	No impact
E	YWCA on Richards Street	3	68	69	69	58/52	68/68	No impact
F	Iolani Palace, on Richards Street	3	68	69	69	56/50	68/68	No impact
G	Iolani Palace, on King Street	3	75	77	76	53/47	75/75	No impact
H	Ala Wai Community Park	3	67	67	68	54/48	67/67	No impact

TABLE 5.6-2 (CONT.)
REFINED LPA
ESTIMATED FUTURE NOISE LEVELS AT REPRESENTATIVE SENSITIVE LAND USES

						REFINED LPA		
Site No.	Location	FTA Land Use Category (1,2,3)	Existing Noise Level[1] (dBA)	No-Build Noise Level (dBA)	TSM Noise Level[2] (dBA)	Project Generated Noise (dBA)	Combined Noise Level – Existing + Project Generated (dBA)	FTA Level of Noise Impact5
I	Buddhist Study Center (University of H) on University Avenue	3	70	71	71	56/50	70/70	No impact
J	Fort DeRussy, on mauka side of Kalia Road	3	66	67	67	58/52	67/66	No impact
K	Thomas Square on King Street	3	62	64	63	54/48	63/62	No impact
L	McKinley High School classroom building on Pensacola Street	3	61	58	62	56/50	62/61	No impact
M	McKinley High School building on South King Street	3	62	64	63	49/43	62/62	No impact

Source: Parsons Brinckerhoff Quade & Douglas, Inc, January 2002.
Notes: [1]FTA Category 2 existing noise levels are 24-hour Ldn levels. Category 3 existing noise levels are short-term one-hour Leq levels.
[2] Based upon future traffic projections, noise levels under the TSM Alternative are expected to be roughly 1 dBA higher than existing noise levels.
[3] Noise levels for a hybrid diesel/electric bus.
[4] Noise levels for a wayside-powered EPT bus.
[5] The level of impact is defined by the FTA as the comparison between existing and project-generated noise.

2) TSM Alternative

The proposed improvements under this alternative would only affect the peak hours of traffic activities. The overall change in traffic noise level would be similar to the future No-Build noise levels. Therefore, no impact is expected under the TSM Alternative.

3) Refined LPA Alternative

Severe noise impacts are not projected for any sites along the Refined LPA alignment. There would be a moderate noise impact at one location, Bishop Garden Apartments (Site 1), with the hybrid electric vehicle. No impacts are projected with the EPT vehicles.

Aloha Stadium Transit Center

The transit center operations and their potential noise impact on the nearby Puuwai Momi and Halawa Valley residential communities have been assessed. The noise sources associated with the transit center are: (1) on-site BRT vehicles idling within the Transit Center; and (2) the off-site movement of BRT vehicles and autos traveling to the Transit Center. Table 5.6-3 summarizes existing and projected transit center noise levels for both the diesel and hybrid electric vehicles at ten noise monitoring locations (see Figure 3.6-3B). There would be no severe noise impacts associated with the Aloha Stadium Transit Center. Moderate noise impacts would occur at the Puuwai Momi Apartments (99-102 Kalaloa Street) Buildings 1, 3, 4 and 5 (Sites AS-1, AS-2, and AS-3), and at least one single-family residence on Luaole Street (Site AS-10) using the diesel and hybrid electric technologies. The extent of potential noise impacts to other residences near the Luapele Ramp will be studied in the final design phase.

TABLE 5.6-3
ALOHA STADIUM TRANSIT CENTER
ESTIMATED FUTURE NOISE LEVELS AT REPRESENTATIVE SENSITIVE RECEPTORS

						TRANSIT CENTERS & REFINED LPA		
Site No.	Location	FTA Land Use Category (1,2,3)	Existing Noise Level - Ldn (dBA)	No-Build Noise Level[1] (dBA)	TSM Noise Level[1] (dBA)	Project Generated Noise Level (dBA)	Combined Noise Level – Existing + Project Generated (dBA)	FTA Level of Noise Impact[4]
AS-1	Puuwai Momi Apartments – Building 1	2	67	68	68	66[2]/65[3]	69[2]/69[3]	**Moderate/ Moderate**
AS-2	Puuwai Momi Apartments – Building 3	2	67	68	68	66/65	69/69	**Moderate/ Moderate**
AS-3	Puuwai Momi Apartments – Buildings 4 and 5	2	62	63	63	61/61	65/64	**Moderate/ Moderate**
AS-4	Single-family residence on Ohenana Loop, Halawa Valley Estates	2	55	56	56	55/55	58/58	No Impact/No Impact
AS-5	Single-family residence on Ohenana Loop, Halawa Valley Estates	2	60	61	61	57/56	62/61	No Impact/No Impact
AS-6	Single-family residence on Ohenana Loop, Halawa Valley Estates	2	60	61	61	56/55	62/61	No Impact/No Impact
AS-7	Single-family residence on Ohenana Loop, Halawa Valley Estates	2	69	70	70	59/56	69/69	No Impact/No Impact
AS-8	Single-family residence on Ohenana Loop, Halawa Valley Estates	2	69	70	70	59/56	69/69	No Impact/No Impact
AS-9	Single-family residence on Ohialomi Place, Halawa Valley Estates	2	72	73	73	61/58	72/72	No Impact/No Impact
AS-10	Single-family residence at 4509 Luaole Street	2	69	70	70	67/64	71/70	**Moderate/ Moderate**

Source: Parsons Brinckerhoff Quade & Douglas, Inc, July 2002.
Notes: [1] Based upon future traffic projections, noise level under the No-Build and TSM Alternatives are expected to be roughly 1 dBA higher than existing noise levels.
[2] Noise levels for a diesel bus.
[3] Noise levels for a hybrid diesel/electric bus.
[4] The level of impact is defined by the FTA as the comparison between existing and project-generated noise.

Park-and-Rides

The following four park-and-ride locations along the Refined LPA alignment have also been analyzed to assess any possible noise impacts to the surrounding community.

- North-South Road Park-and-Ride: The 590-space North-South Road park-and-ride is surrounded by agricultural land. There are no noise-sensitive receptors located in the vicinity of this site. Therefore, no noise impacts are projected here.
- Kapolei Transit Center/Park-and-Ride: The 470-space Kapolei Transit Center/Park-and-Ride is surrounded by currently undeveloped land. There are currently no noise-sensitive receptors located in the vicinity of this site. Therefore, no noise impacts are projected here.

Vehicular Traffic

In-Town

Future In-Town traffic volumes under the Refined LPA are projected to decrease at all but one of the noise measurement locations. Future noise levels, therefore, would be 1 to 3 dBA lower than existing noise levels at sites 1, 5, 7, 8, 12, 13, 16, A, B, C, G, I and M. Due to a slight increase in future traffic volumes at site 9, noise levels would increase 1 dBA at this location. These changes in noise level would be barely perceptible to most people. At the remaining noise measurement locations – sites 2, 3, 4, 6, 9, 10, 11, 14, 15, 17, 18, D, E, F, H, J, K, and L – there would be no change in noise levels associated with changes in future traffic volumes.

Regional

Under the No-Build and TSM Alternatives and the Refined LPA, traffic on the H-1 Freeway is expected to increase roughly 50% by the year 2025. This will increase noise levels along the H-1 Corridor by 1 to 2 dBA, which is barely perceptible to most people.

5.6.3 Mitigation

This section addresses mitigation measures for transit-related noise impacts.

For this analysis, sound walls were evaluated as mitigation for the In-Town BRT and Aloha Stadium Transit Center noise impacts. Sound walls are considered the most effective noise control measure for at-grade transit systems. To be effective, the walls must block the direct view of the noise source and must be solid with minimal openings. The use of sound walls along at-grade segments where transit is in the median of a street would not be feasible since it would affect normal traffic and pedestrian movements, and would restrict emergency vehicle access. The use of noise mitigation for the moderately affected Bishop Garden Apartments in Kalihi (Site 1) is not deemed to be feasible and will not be included as part of this project, because a wall at this location would impair driver visibility and interfere with pedestrian and traffic movements. Interior sound insulation of the affected apartment units could be a reasonable alternative to a noise barrier, including air-conditioning installation and replacement of windows and doors facing the BRT alignment.

Property line noise barriers would be effective in mitigating the noise impacts from the Aloha Stadium Transit Center to the Puuwai Momi Apartments. The noise barrier would be located at the rear of Buildings 1, 3, 4, and 5 and could incorporate doors to allow continued access from Salt Lake Boulevard to the rear of these buildings. (See discussion and visual renderings in Section 5.4.)

In accordance with FTA guidelines, a 10-foot high property line noise barrier wall is a feasible and reasonable mitigation measure that would provide 5 dBA or more noise reduction to the outdoor area and ground floor units of the Puuwai Momi Apartments. The wall would not provide noise abatement for the second or third floor apartment balconies. To provide noise abatement to these upper floors, the noise barrier height would have to be raised to 24 feet.

Noise barriers would not be feasible in mitigating noise impacts at any of the single-family residences in the vicinity of the Luapele Ramp (represented by Site AS-10), because the barrier would likely interfere with traffic and pedestrian movements. The final design phase will include studies to determine more specific noise impacts. Interior sound insulation and installation of air-conditioning in affected homes could be a reasonable alternative to a noise barrier for this area also.

5.6.4 Noise and Quality of Urban Life

The level of noise, defined as unwanted sound, greatly affects quality of life. This includes people using the transit system and those walking to work, shopping, eating, at play, and so forth along the alignment.

The average pedestrian is exposed to two different types of noise generated from vehicles: noise generated when the vehicle passes by at a constant speed and noise generated upon vehicle acceleration from a standing position.

The passby noise of a diesel bus operating at 30 mph at a distance of 50 feet is 81 dBA, in comparison to a rubber tired electric vehicle which has a passby level of 75 dBA. This is a difference of 6 dBA, which is a noticeable change in noise level that humans can hear. The hybrid diesel/electric vehicles would have a passby noise level midway between the diesel and electric powered vehicles.

There are also differences between acceleration noises for conventional diesel buses in the No-Build and TSM Alternatives and the electric or hybrid electric buses in the Refined LPA. Accelerating diesel buses are typically 3 to 6 dBA noisier than non-accelerating buses, which subjectively ranges from perceptible to clearly noticeable. For comparison, the hybrid electric buses would have acceleration noise levels that are comparable to the passby noise levels of diesel buses. Since the diesel engine in a hybrid electric bus operates at a constant, optimum rpm, its noise level would be substantially less than noise levels generated by a diesel engine when accelerating from a standing position. The all-electric vehicle would be 3 dBA to 6 dBA quieter than the hybrid electric bus during acceleration.

Thus, at the street level, a person's environment along the transit spine would be less noisy with the Refined LPA than with the TSM and No-Build Alternatives. This difference is due to the use of the quieter electric or hybrid electric vehicles in the Refined LPA, versus the diesel buses operating in the TSM and No-Build Alternatives.

5.7 ECOSYSTEMS

5.7.1 Ecosystem Impacts

Natural habitat is very limited along the roadways and at the sites that would be affected by any of the alternatives. The sites do not represent unique or special habitat within the project area. The TSM Alternative and the Refined LPA would have no effect on the characteristics or size of populations of the resident wildlife or plant species in the area. The Refined LPA would include new landscaping in areas affected by construction.

A) Impacts on Protected Species

No State or federally listed, proposed, or candidate threatened or endangered plant or animal species described in Chapter 3, except for the white tern, is likely to be affected within areas proposed for construction. The State of Hawaii lists the Oahu population of the white tern (*Gygis alba*) as endangered. White terns are also federally protected species under the Migratory Bird Treaty Act.

DTS has conducted interagency coordination with the State Department of Land and Natural Resources Division of Forestry and Wildlife (DLNR-DOFAW) and the U.S. Fish and Wildlife Service (USFWS). Sites currently used by white terns on Oahu include Kapiolani Park, Thomas Square, Fort DeRussy, Iolani Palace, and parts of downtown and the Capital District. These areas are on the Refined LPA alignment, but white terns are well-adapted to urban environments, and no interaction with adults of this species is anticipated. The primary concern regarding white terns is to avoid disturbing their eggs, which are laid on bare tree

branches. Most white terns typically nest from February to September when they are in Hawaii, but some pairs are resident year-round and nest multiple times a year.

The kooloaula *(Abutilon menziesii)*, an endangered plant, is found along the proposed alignment of North-South Road, but much further makai of the proposed Regional BRT park-and-ride site, which is mauka of Farrington Highway. Moreover, the proposed park-and-ride site is on actively cultivated farmland, making it unlikely that this endangered plant would be found on this site. Therefore, no impact is expected on the population of kooloaula in this area.

B) Tree Impacts

Preliminary engineering performed subsequent to publication of the MIS/DEIS indicated that there could have been a number of impacts on urban street trees. Because of concerns about the magnitude of tree impacts initially identified, DTS undertook concerted efforts to redesign portions of the In-Town BRT in ways that would minimize impacts to trees. Redesign efforts in various locations included shifting or eliminating bus stops, reducing the number or size of traffic and BRT lanes, converting some exclusive BRT lanes to semi-exclusive or mixed-traffic lanes, and designing bus stops around existing trees, among others. While there will still be tree impacts, the number of trees affected will be substantially less as a result of these redesign measures. No tree impacts are expected in the Regional BRT section.

Some trees and shrubs would be relocated or removed to allow the transit stops to be built or the roadway to be modified for the Refined LPA by the project's qualified, certified arborist. A tree survey and impact analysis identified 154 tree impacts, of which 34 were determined to be "notable" trees (Table 5.7-1). A "notable" tree is defined as a tree deemed to be important to the urban landscape character. This category includes individual trees or tree types, as well as groups of trees that together comprise a recognized and important element of the visual landscape. This number does not include those trees that will need pruning. Of particular concern were the monkeypods on Kapiolani Boulevard, which are part of the historic landscape of Kapiolani Boulevard, as identified by the State Department of Land and Natural Resources, Historic Preservation Division (SHPD, MIS/DEIS comment letter, Nov. 22, 2000). DTS also worked closely with The Outdoor Circle and the City's Department of Parks and Recreation to minimize and mitigate tree impacts. Three field visits were conducted with these stakeholders in November 2001 and January and February 2002 to review potential impacts and discuss mitigation measures. These mitigation measures are incorporated into this FEIS. A tree preservation program will be developed by a qualified certified arborist.

The project will make every effort to save all notable and healthy trees. It should be noted that even trees initially assessed to be "not transplantable" because of size or age were ultimately considered for relocation, if it is physically possible to transplant the tree. Original field assessments of the transplantability of trees had assumed that relocation is not a possibility if a tree is too large, over mature, or unhealthy.

The Refined LPA may also require tree trimming where the transit stops are located or the road needs to be widened to accommodate the transit vehicles. For example, several trees on the Ewa side of Pensacola Street and the mauka side of Kuhio Avenue will be trimmed to allow BRT vehicles to pass in the curbside lane, since these trees abut the curb and have very low branches or leaning trunks. The few trees in these areas for which the qualified certified arborist deemed that pruning was not a viable option are included in Table 5.7-1 as "remove/replace."

C) Other Ecosystem Impacts

The amount of undeveloped land required for both the TSM Alternative and the Refined LPA is minimal. Bus ramps, park-and-ride facilities, and transit centers will be built adjacent to current roadways for both alternatives. These sites are all near current transportation facilities, and no agricultural operations would be displaced by any of the proposed alternatives. Only the North-South Road Park-and-Ride will affect roughly four acres of agricultural land. This park-and-ride is proposed under all three alternatives, and the partial displacement of the farming business on this site is described in Section 5.2.

TABLE 5.7-1
NOTABLE TREE IMPACTS

BRT SEGMENT	TREE TYPE	RELOCATE On-Site	RELOCATE Off-Site	REMOVE/ REPLACE	TOTAL
Kalihi	**Kamani Trees (*Callophylum inophyllum*) on Dillingham Blvd. (all w/poor canopies)**	**8**	**0**	**2**	**10**
	Not Notable	11	12	3	26
	Sub-Total	*19*	*12*	*5*	*36*
Kakaako Mauka	**Monkeypods (*Samanea saman*) on Ala Moana Blvd.**	**5**	**0**	**0**	**5**
	Not Notable	3	7	0	10
	Sub-Total	*8*	*7*	*0*	*15*
Kakaako Makai	Not Notable	13	0	0	13
	Sub-Total	*13*	*0*	*0*	*13*
UH-Midtown	**Monkeypods (*Samanea saman*) on Kapiolani Blvd.**	**10**	**0**	**0**	**10**
	Not Notable	16	6	6	28
	Sub-Total	*26*	*6*	*6*	*38*
Waikiki	**Cluster of Date Palms (*Phoenix dactylatra*) and Royal Palms (*Roystonea regia*) on Saratoga Road (healthy palms only)**	**7**	**0**	**0**	**7**
	Banyans (*Ficus spp.*) on Kalia Road	**2**	**0**	**0**	**2**
	Not Notable	25	0	18	43
	Sub-Total	*34*	*0*	*18*	*52*
TOTALS	**Notable Trees**	**32**	**0**	**2**	**34**
	Not Notable Trees	68	25	27	120
	All Trees	100	25	29	154

Source: The Tree People, SSFM, and Parsons Brinckerhoff, July 2002.

Comments received about project costs led to a re-evaluation of the original intent to place a park-and-ride site near the junction of H-1 and Kunia Road. The North-South Road site was selected instead because it could be constructed adjacent to the proposed North-South Road, eliminating the need for a costly access road and special freeway ramps. This proposed site will allow utilization of the North-South Road ramps onto and off of H-1, rather than constructing a special access ramp as would have been required at the Kunia Road site. Moreover, although the North-South Road site will still affect agricultural land, the acreage impact will be less than it would have been at Kunia Road.

Under the Federal Farmland Protection Policy Act (FPPA), federal agencies must formally assess their projects' impact on agriculture. The U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) has determined that the land located at the proposed North-South Road Park-and-Ride site consists of prime, unique farmland of statewide or local importance. In accordance with 7 CFR 658.4(a), Form AD-1006, "Farmland Conversion Impact Rating" was submitted to NRCS and a Farmland Conversion Impact Rating score was determined. If a project receives a score equal to or greater than 160 points, alternatives that avoid farmland impacts must be evaluated.

The Combined Land Evaluation and Site Assessment Score for the North-South Road Park-and-Ride site is 194, which exceeds the 160 point threshold. Therefore, alternatives that do not affect farmlands were also evaluated.

In addition to the H-1/Kunia site which would have affected another farm, non-farm alternative sites considered included the mauka side of the H-1 Freeway near Kunia Road, the Koko Head side of the H-1/Kunia Interchange, and the existing Royal Kunia Park-and-Ride. The topography of the mauka side of the freeway made it impractical for a park-and-ride site. The lands to the Koko Head side of the interchange are highly developed and no parcels large enough to accommodate the land requirement of a park-and-ride were identified. The existing Royal Kunia Park-and-Ride was also considered, but was deemed to be too small to operate a park-and-ride of the scale required for the Refined LPA Alternative. Also, providing direct ramps to-and-from the H-1 express lanes would be very difficult from the existing Royal Kunia Park-and-Ride.

5.7.2 Aquatic Ecosystems

No adverse impacts on aquatic ecosystems would result from the proposed action. If more people were to ride transit and reduce VMT, as forecasted for the Refined LPA, less pollutants from roadway runoff would enter freshwater and marine ecosystems. Therefore, no mitigation is necessary for aquatic ecosystems.

5.7.3 Protected Species Mitigation

A survey of the project area will be conducted for white terns and their nests prior to final design. Sensitive trees and areas will also be monitored immediately prior to and/or during construction activities that involve tree relocation, removal, and/or trimming. All monitoring will be coordinated with the USFWS. DTS will also coordinate tree trimming with the Department of Parks and Recreation, which has standard procedures to avoid impacts to white terns and their eggs.

5.7.4 Mitigation Measures for Tree Impacts

Mitigation for landscaping impacts will consist of revegetation and landscape redesign along the alignment where possible. Although detailed planting plans will not be prepared until later stages of final design, desirable locations for special landscaping treatment include areas where (1) existing landscaping has been lost; (2) substantial opportunities exist for enhancement of existing streetscapes; (3) joint use is possible; (4) stops, transit centers, park-and-ride lots are proposed; (5) mitigation of specific impacts can be accomplished, such as adjacent to parks or historic sites; and (6) specific relevant goals have been established, such as within special districts.

Despite efforts made to minimize impacts on street trees, some trees will have to be relocated or removed/replaced to allow for necessary road widening, as shown in Table 5.7-1. A tree preservation program will be developed in conjunction with a "qualified arborist" to mitigate these unavoidable impacts. The City defines a "qualified certified arborist" as an arborist approved by the Department of Parks and Recreation (DPR), having at least three years of work experience. The tree preservation program will be in accordance with standard procedures used by the DPR in similar City contracts for tree maintenance. Community input will also play a role in identifying key components of the program. The working group concept will be carried out through the final design phase to ensure community input. A Street Tree Review will also be conducted by the Department of Planning and Permitting (DPP) as part of the construction plan review by the City. The DPP's Street Tree Review applies only to those trees not located within a Special Design District; affected trees inside designated Special Design Districts will be addressed in the Special Design District Permit.

On-site relocation is the preferred mitigation option wherever possible, especially for notable trees. Those trees to be relocated on-site will be kept on the same street, but moved back farther from the curb to accommodate road widening. On-site relocation may require some pruning to prepare the tree for transplanting, but the canopy of even mature trees will be kept largely intact. Root balls of appropriate sizes will be contained to move each tree. Whether or not a tree can be relocated on-site was determined by assessing if there is enough space within or adjacent to the existing right of way. In the case of on-site relocation, land acquisition by the City may be necessary.

Trees to be relocated off-site are those trees in areas where on-site relocation does not appear to be a viable option, due to proximity to buildings or other barriers for street widening and tree planting. If a tree must be relocated off-site, the project team under direction from DTS and input from the appropriate working groups will identify suitable sites for relocating each individual tree. Sites to be considered include parks, schools, and other public areas, although private property owners may also have the opportunity to replant these displaced trees.

In some cases, relocating a tree is not advisable because the tree is too old, decayed, damaged, or otherwise inappropriate for successful transplantation. Such trees will be removed and replaced. The replacement tree will be replanted on the same section of the alignment when possible. If replacing the tree is not possible on that section of the alignment, the newer tree will be planted in one of the off-site relocation areas. A qualified certified arborist will work with a landscape architect on a case-by-case basis to determine the best available field stock material appropriate to replace each affected tree. The tree preservation program will contain mitigation measures determined in consultation with The Outdoor Circle. For example, for every Kamani tree removed from the makai side of Dillingham Boulevard, two 10 to 12-inch Kamani trees will be planted on the mauka side to infill existing gaps. Also, of the six Kamani trees on the makai side of Dillingham Boulevard Koko Head of Alakawa Street that would be impacted, three trees are proposed for replanting in the property at the makai Koko Head corner of Dillingham Boulevard and Alakawa Street.

Other trees that are removed will be replaced at a one for one ratio with trees of a similar caliper, if feasible, or trees will otherwise be replaced so as to maintain the appearance of the landscape as much as possible. Trees that are relocated on-site or off-site will be monitored for a year. If relocated trees do not survive the transplanting process, they will also be replaced at a one for one ratio with trees of a similar caliper, if feasible. Because tree impacts will be mitigated by relocation and/or replacement, there will be no net loss of trees resulting from this project. Therefore, there will be no cumulative impact on trees.

The monkeypod trees on Kapiolani Boulevard will be relocated on-site. This approach means that the trees will remain in the same general vicinity from which it came, such that the tree will remain visibly on Kapiolani Boulevard, but placed farther from the curb. The trees will be pruned minimally during the transplanting process, but their canopies will be kept largely intact. Therefore, because these tree impacts will be mitigated in this manner, the visual character of Kapiolani Boulevard will not be affected.

Generally, monkeypod trees pruned for replanting will take about one year to grow back their canopies, with full recovery in three to five years' time. The Kamani trees on Dillingham Boulevard will take a little longer to recover fully, about four to eight years.

The tree preservation program will also address methods to minimize tree trimming impacts. A qualified arborist will determine the appropriate amount of trimming with the least impact on each tree. The plan will also serve as a tree protection plan to be used during construction. Section 5.12 also addresses the tree protection plan to be implemented during construction and the Street Tree Review by DPP.

As described in Section 2.2.1, the City's Department of Design and Construction (DDC) also has plans for a reconstruction project that will affect trees on Kapiolani Boulevard between Ward and Kalakaua Avenues. In order to ensure that the monkeypod trees have enough time to recover in between construction projects, DTS commits not to start any In-Town BRT-related construction activities affecting the ten trees on Kapiolani Boulevard for a period of two years following the completion of the DDC project. This commitment is being made in order to provide the trees the best chance to recover from the possible impacts of the reconstruction work. A professional arborist has determined that the two-year period would exceed the reasonable time required for the trees to recover and therefore, after that period, it would be safe to relocate the trees. (Personal communication from DTS to The Outdoor Circle, May 8, 2003).

5.7.5 Mitigation Measures for Agricultural Impacts

The North-South Road Park-and-Ride will cause an unavoidable impact to agricultural land and an operating agricultural business. Mitigation measures to compensate for loss of land and revenue to the business on site are described in Section 5.2. The loss of agricultural land in this area is deemed necessary to the success of the Refined LPA, and represents a policy decision by the City to allow some agricultural lands to be used to promote transit ridership in the Ewa region.

It is expected that the farm on this site would be able to continue operating after construction of the park-and-ride. Any haul roads on the farm property affected by the park-and-ride's access road will be maintained or realigned to allow continued use.

5.8 WATER

No major impacts on water resources are expected for any of the proposed alternatives.

5.8.1 Surface Water

Any additional impervious surface from roadway pavement under all alternatives will increase runoff and associated contaminants discharged to storm-water systems and surface waters. However, with the Refined LPA, much of the proposed new or widened pavement would be located along existing streets. Dillingham Boulevard will be widened over the Kapalama Stream bridge by reinforcing the bridge with a new bridge beam. This work will be accomplished without modifying or altering the stream. In addition, Ala Moana Boulevard Bridge over Ala Wai Canal may require a retrofit. Further engineering studies will be conducted to determine if retrofit is needed and if so, whether this would involve additional foundations or piers in the canal waters. A Clean Water Act (CWA) Section 404 permit from the U.S. Army Corps of Engineers and a CWA Section 401 Water Quality Certification from the State Department of Health will be obtained if necessary.

The incremental increase in impervious surface and associated contaminants resulting from implementation of the Regional and In-Town BRT systems will be minor in comparison to the total existing drainage area and pollutant loading to storm-water systems and surface waterways from Honolulu's urban core. Nonetheless, specific control measures will be resolved during final design, and a best management plan will be developed to minimize or control surface water runoff, especially at the North-South Road Park-and-Ride, which will be located adjacent to Kaloi Gulch.

No long-term effect on surface water quality of area streams, lagoons, or harbors would be expected. Increasing transit patronage (with the Refined LPA) will reduce the non-point source pollution created by automobiles.

Moreover, the project should not increase demand for water resources. All landscaping will be selected to match environmental conditions and avoid unnecessary water use.

5.8.2 Groundwater

Because the Southern Oahu Basal Aquifer (SOBA) is a designated sole-source aquifer, EPA requires a Ground Water Impact Assessment (under Section 1424(e) of the Safe Drinking Water Act) to determine the project's impact on the quality of the groundwater in the SOBA. The EPA approved the federal financial assistance for the project under the provisions of Section 1424(e) (see Appendix A).

No long-term impacts on groundwater quality, quantity, or flow characteristics are anticipated. The Refined LPA would provide a clean, convenient public transportation alternative to single-occupant automobiles. By

replacing single-occupant vehicles with electric and conventional buses and reducing total regional vehicle-miles traveled (VMT), the overall pollutant loading of roadway runoff would be reduced.

The In-Town BRT is not located in a recharge area for the SOBA. The potential for contamination of the SOBA from the In-Town BRT would be low due to the artesian conditions in the SOBA created by the great thickness and relative impermeability of the caprock.

The Regional BRT will run along the H-1 Freeway over some areas where the basalt containing the SOBA is not covered by a thick layer of caprock and surface waters can percolate into the SOBA. In these areas, there is the potential for contamination of the SOBA from roadway drainage and hazardous spills. Since the Refined LPA will reduce total regional VMT, the amount of roadway runoff and the risk of accidental spills will be reduced. Any new construction will be tied into the existing drainage system.

The alluvial cover on the SOBA is thin or nonexistent at the Luapele Drive Ramp. The Luapele Drive Ramp has been designed with a short tunnel necessary to bring the BRT vehicles back onto the H-1. Although borings have not been initiated (and are not anticipated to be initiated until the final design phase), it appears that the tunnel will be excavated in rock. A lined drainage channel will intercept runoff from inside the tunnel.

Drainage systems at the park-and-ride facility at North-South Road would collect stormwater runoff and inadvertent material releases and convey them outside the SOBA recharge area via Kaloi Gulch.

The small amount of impervious surface constructed as part of the Regional BRT will not measurably reduce the recharge of the SOBA.

No major disruption of groundwater flow will occur. The only tunnel or other underground structure is the short bus tunnel associated with the Luapele Drive ramp.

5.8.3 Floodplains

No adverse impacts are expected in the 100- or 500-year base floodplains. The proposed TSM Alternative and Refined LPA alignments will traverse some floodplains, as described in Section 3.8.3, but the transit systems will largely utilize existing or planned roadways and will not require any changes that may affect the potential for flooding. In other words, implementation of the project will result in only minimal encroachment on the floodplain and no changes to existing flood elevation levels, nor will it increase the risk of floods. Therefore, the project is in compliance with U.S. DOT Order 5650.2 on Floodplain Management and Protection. Any necessary construction will comply with the rules and regulations of the National Flood Insurance Program (NFIP) and all applicable ordinances for flood hazard districts, as stated in the City and County of Honolulu's Land Use Ordinance.

5.8.4 Wetlands

It is anticipated that no wetlands will be affected by any of the project alternatives, because the project area is highly urbanized and transit lanes will occur mostly within existing roadways. The Refined LPA alignment will traverse streams using existing bridges. It is expected that bridge modifications to accommodate the Regional and In-Town BRT will not involve dredging or filling any waters of the U.S., including wetlands. However, there is a possibility that new piers may be necessary for a bridge widening at the Waiawa Interchange and a potential retrofit of Ala Moana Boulevard bridge over Ala Wai Canal, but the need for new piers will not be determined until the final design phase. Construction of any piers would be in association with pre-existing bridges, and additional foundations or piers in the streams would be avoided wherever possible. The U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines (40 CFR 230) are the substantive environmental criteria used to protect the waters of the U.S. through the control of discharges of dredged or fill material under Section 404 of the Clean Water Act. A Section 404 permit will be obtained from the U.S. Army Corps of Engineers (ACOE), if necessary. Based on field reconnaissance, one potential

wetland area has been identified just to the south of the Luapele Drive ramp. Although in the project area, this wetland appears to be outside of the construction limits. In order to define the boundaries of this wetland, a wetland delineation will be conducted during the final design phase. At this time, no wetland impacts are anticipated.

5.8.5 Navigable Waters

It is anticipated that no navigable waters will be affected by the proposed alternatives, because the project area is highly urbanized and transit lanes will occur mostly within existing roadways. The Refined LPA alignment will traverse streams using existing bridges, which may necessitate alterations to some of the bridge structures (see Sections 5.8.1 and 5.8.4). Ala Wai Canal is considered navigable. Therefore, if Ala Moana Boulevard Bridge over the canal requires a retrofit, this may require a permit from the U.S. Coast Guard pursuant to pursuant to the Rivers and Harbor Act of 1899.

5.8.6 Coastal Zone Management (CZM) Areas

Because the proposed project is a federally funded activity, it must receive a consistency determination from the State CZM program to assure that the project meets the guidelines in the State policy. The Department of Business, Economic Development and Tourism (DBEDT), the agency administering the State's CZM program, concurred with DTS's CZM consistency determination (see Appendix A).

5.8.7 Water Recreation

The proposed project is not expected to affect any water recreation activities within or adjacent to the project area. No impact on water quality that could affect recreational uses will occur from any of the alternatives, and no restriction of access to water recreation activities will occur.

5.9 ENERGY

This section provides estimates of the energy that would be consumed under each alternative in the design year 2025. The analysis considers direct (operational) and indirect energy requirements. Direct energy consumption includes the fuel required for passenger vehicles (automobiles, vans, light trucks) and transit buses. It also includes the electrical power needed to power the In-Town BRT vehicles if an EPT system is selected. Indirect energy consumption includes what is required to construct any capital improvements, and to manufacture and maintain passenger vehicles and transit buses.

The Refined LPA would result in the least amount of direct energy consumption because it would lead to a substantial decrease in the vehicle miles traveled (VMT) for passenger vehicles, and a substantial increase in VMT for transit buses (and In-Town BRT vehicles). Although the per unit energy requirements of a transit bus (or In-Town BRT vehicle) are greater than an individual passenger vehicle, the greater passenger capacity of these vehicles makes them more energy efficient on a per person basis. The Refined LPA is estimated to consume up to 215,000 fewer barrels of oil than the No-Build Alternative, and up to 249,000 fewer barrels than the TSM Alternative in the design year 2025. If EPT is used as the In-Town BRT technology, these savings would be slightly less.

The Refined LPA would require the most indirect energy because it requires the most construction. The TSM and No-Build Alternatives would also consume indirect energy because they also include some construction activities. The Refined LPA would produce maintenance energy savings because it would lead to less use of passenger vehicles. Maintenance costs under the TSM Alternative are not anticipated to increase over the No-Build Alternative because of the increase in maintenance energy for transit buses. The Refined LPA would produce a savings of approximately 44,000 barrels of oil for maintenance over the No-Build Alternative and 55,000 barrels of oil over the TSM Alternative.

5.9.1 Analysis Methodology

1) Direct Energy (Operational)

The method used to estimate the direct energy consumption for the alternatives is outlined in the Reporting Instructions for the Section 5309 New Starts Criteria (FTA, June 2002). Direct energy consumption involves the fuel needed by the vehicles (automobile, truck, bus, or transitway vehicle) on the island. In assessing the direct energy impact, the following factors were used:

- Annual vehicle miles traveled (VMT) for automobiles, trucks, buses, and In-Town BRT vehicles.
- Fuel consumption rates by vehicle type.

Daily traffic volumes and the projected 2025 VMT were used in the direct energy analysis for each alternative. The 2025 daily traffic volumes for the island were developed as part of the traffic modeling process. The daily VMT was annualized using a factor of 308 days/year. Table 5.9-1 shows the fuel consumption rates, as measured in British thermal units (BTUs), that were used in the analysis. One BTU is the quantity of energy necessary to raise one pound of water one degree Fahrenheit. These rates were developed by Oak Ridge Laboratory and published in the 2001 Transportation Energy Book: Edition 21.

TABLE 5.9-1
1999 ENERGY CONSUMPTION RATES

Vehicle Type	Energy Consumption/Vehicle Mile
Passenger Vehicles (auto, van, light truck)	6,225 BTU/Vehicle Mile*
Transit Bus (all vehicle types)	42,955 BTU/Vehicle Mile

Source: U.S. Department of Energy, Office of Transportation Technologies, 2001.
*This is a weighted average.

A slight adjustment was made in calculating the direct energy consumption of the Refined LPA because it includes the In-Town BRT, a system that could potentially be exclusively electric. If so, the In-Town BRT vehicle would use a touchable surface contact system (embedded plate) (see Section 2.2.3). Unfortunately, there is no existing data on the electrical demand of an all-electric In-Town BRT vehicle. However, there is data on the electrical demand of light rail transit (LRT) systems. Since the In-Town BRT vehicle would require less electricity than a typical LRT vehicle, slight adjustments were made to this information, which resulted in an estimate of 11,300 kilowatts per day for the entire system. Hybrid- electric In-Town BRT vehicles could be used as an alternative to an EPT vehicle (see Section 2.2.3). The fuel consumption of the hybrid vehicle would be similar yet slightly less than for the standard diesel buses shown in Table 5.9-1.

2) Indirect Energy

Indirect energy involves the one-time, non-recoverable energy consumption associated with construction activities. In addition to fuel consumption of vehicles involved in the actual construction of different elements of the alternatives, construction energy consumption also includes the energy needed to produce construction materials. An Input-Output method was used to estimate construction energy consumption for the alternatives. Under this method, the construction cost for each alternative is converted into energy consumption based on 1998 base data on the construction of similar transportation systems in the U.S.

Indirect energy also involves the manufacturing and maintenance of vehicles. This includes passenger vehicles and transit buses.

5.9.2 Energy Impacts

1) Direct Energy (Operational)

Annual direct energy consumption estimates, in BTUs, in the year 2025 under the No-Build, TSM and Refined LPA Alternatives are provided in Table 5.9-2. This table also shows the BTU-equivalent barrels of crude oil. A discussion of the direct energy consumption impacts of each alternative is provided below.

TABLE 5.9-2
ESTIMATES OF ANNUAL DIRECT ENERGY CONSUMPTION IN YEAR 2025

	Alternative		
	No-Build	**TSM**	**Refined LPA**
PROJECTED VEHICLES MILES TRAVELED (in Millions)			
Daily Passenger Vehicle	19.64	19.64	18.84
Annual Passenger Vehicle	6,050.43	6,050.16	5,803.26
Daily Transit Bus	.063	.078	.084
Annual Transit Bus	19.3	24.0	26.0
ESTIMATED BTUs (in Billions)			
Passenger Vehicle	37,664	37,662	36,125
Transit Bus	829.0	1,030.9	1,116.8
SUMMARY			
Total BTUs (in Billions)	38,492	38,692	37,242[2]
Total Barrels of Oil (in Thousands)[1]	6,636	6,671	6,421[2]
Change in Barrels of Oil from No-Build Alternative (in Thousands)	N/A	35	-215

Source: Parsons Brinckerhoff, Inc., October 2002.
Note: [1] Barrel of Oil = 5.8 million BTUs (from U.S. Department of Energy, Office of Transportation Technologies, Transportation Energy Data Book: Edition 18 –1998).
[2] For Hybrid diesel/electric vehicles.

No-Build Alternative

Under the No-Build Alternative, the year 2025 Oahu VMT for passenger vehicles (automobiles, vans and light trucks) is projected to be approximately 6,050 million miles and approximately 19.3 million miles for transit buses. Based on fuel consumption rates provided on Table 5.9-1, these vehicles would consume approximately 38,492 billion BTUs, or approximately 6.63 million barrels of oil, in the year 2025.

TSM Alternative

Under the TSM Alternative, the year 2025 Oahu VMT for passenger vehicles is projected to be approximately 6,050 million miles and approximately 24 million miles for buses. Overall, the islandwide passenger vehicles VMT under the TSM Alternative is projected to be almost the same as the passenger vehicles VMT under the

No-Build Alternative. Improved transit service would create additional transit trips under the TSM Alternative; therefore, the VMT for buses would be approximately 4.7 million miles higher under the TSM Alternative. Based on these VMT projections, passenger vehicles and transit buses would consume approximately 38,692 billion BTUs, or 6.67 million barrels of oil, in the year 2025. This is about 200 billion BTUs, or 34,000 barrels of oil more than what would be consumed under the No-Build Alternative.

Refined LPA

Under the Refined LPA, the year 2025 Oahu VMT for passenger vehicles is projected to be 5,803 million miles, and approximately 26 million miles for transit buses. Compared to the No-Build and TSM Alternatives,

the VMT for buses would be approximately 6.7 million and two million miles higher under the Refined LPA, respectively. However, the VMT for passenger vehicles would be approximately 247 million miles lower under the Refined LPA. Based on projected VMT for the Refined LPA, approximately 37,242 billion BTUs, or about 6.4 million barrels of oil would be consumed in the year 2025. This estimate assumes that hybrid electric In-Town BRT vehicles would be used.

If an all-electric In-Town BRT system (i.e. EPT) is used, the fuel consumption indicated on Table 5.9-2 would be lower under the Refined LPA. Furthermore, an EPT system would require approximately 11,300 kilowatts per day, which can be provided within the reserve capacity of existing electric power plants according to Hawaiian Electric Company. Nevertheless, an EPT system overall would consume a slightly greater amount of energy, estimated at 38.5 million BTUs per day on average, which is the equivalent to 6.6 barrels of oil. It should be noted that this modest additional energy demand of an EPT In-Town BRT would be offset by other advantages of such a system, such as the vehicle's zero air pollutant emissions and its lower noise levels.

In summary, operational energy consumption under the Refined LPA would be the lowest among the three alternatives. The Refined LPA would annually consume up to 215,000 fewer barrels of oil than the No-Build Alternative, and up to 250,000 fewer barrels than the TSM Alternative in the year 2025.

2) Indirect Energy (Construction)

Indirect energy consumption estimates under each alternative are provided in Table 5.9-3. This table also shows the BTU-equivalent barrels of crude oil. The energy consumption estimates under construction represents a one-time expenditure of energy. The indirect energy consumption impacts discussion for each alternative is provided below.

No-Build Alternative

The indirect energy consumption of the No-Build Alternative would include the manufacturing and maintenance of passenger vehicles and transit buses plus construction costs associated with programmed improvements to Oahu's transit center network. The construction and manufacturing activities required under the No-Build Alternative would consume approximately 1.5 million barrels of oil, and maintenance would require approximately 1.5 million barrels of oil in the forecast year 2025.

TSM Alternative

Under the TSM Alternative, construction activities would substantially increase the construction sub-total of the indirect energy consumption over the No-Build Alternative. It is estimated that such activities, in addition to the manufacturing of passenger vehicles and transit buses, would require 1.66 million barrels of oil, about 156,000 barrels more than what would be required under the No-Build Alternative. The energy required for the maintenance of passenger vehicles and transit buses would be slightly higher than what would be required under the No-Build Alternative because this alternative would result in greater use of transit vehicles.

Refined LPA

Construction of the Refined LPA would result in the greatest indirect consumption of energy compared to the other alternatives. Overall, it would require 727,000 and 571,000 barrels of oil more than the No-Build and TSM Alternatives, respectively. However, since the Refined LPA would result in less use of passenger vehicles compared to the other alternatives, energy consumption for maintenance under this alternative would be approximately 44,000 barrels of oil less than the No-Build Alternative.

TABLE 5.9-3
ESTIMATES OF INDIRECT ENERGY CONSUMPTION IN YEAR 2025

	Alternative		
	No-Build	TSM	Refined LPA
CONSTRUCTION[1] (in Billions BTU)			
Passenger Vehicle- Manufacturing	8,531	8,531	8,183
Transit Bus Manufacturing	67.0	83.3	90.2
Roadway	0	400.4	2,904
Parking	98.2	336.1	512.4
Structures	5.1	17.6	991.1
Maintenance Facility	0	234.8	235
Total Construction	8,701	9,603	12,916
Total Construction in Barrels of Oil (in Thousands)	1,500	1,656	2,227
Change in Barrels of Oil from No-Build Alternative (in Thousands)	N/A	155	727
MAINTENANCE[2](in Billions BTU)			
Passenger Vehicle	8,471	8,471	8,125
Transit Bus	253	315	342
Total Maintenance	8,724	8,785	8,466
Total Maintenance in Barrels of Oil (in Thousands)	1,504	1,515	1,460
Change in Barrels of Oil from No-Build Alternative (in Thousands)	N/A	11	-44
Total Indirect Energy Consumption (in Billions of BTUs)	17,425	18,388	21,382
Total Indirect Energy Consumption (in thousands of Barrels Of Oil)	3,004	3,170	3,687

Source: Parsons Brinckerhoff, Inc., October 2002.
Notes:
[1] Construction Energy Conversions (Caltrans, 1983):
Vehicle construction energy:
- Passenger vehicles – 1,410 BTUs/VMT
- Transit bus - 3,470 BTUs/VMT

Roadway – 27,500 BTUs/1977$
Parking – 61,615 BTU/1973$
Structures – 50,100 BTUs/1973$
Maintenance facility – 50,100 BTUs/1973$

[2] Maintenance conversions (Caltrans, 1983).
- Passenger vehicles – 1,400 BTUs/VMT
- Transit bus - 13,142 BTUs/VMT

5.10 HISTORIC AND ARCHAEOLOGICAL RESOURCES

This section discusses the potential impacts of the No-Build Alternative, TSM Alternative and the Refined LPA on the historic and archaeological resources in the study area. Consultation with the State Historic Preservation Division (SHPD) and other organizations interested in historic and cultural preservation was conducted throughout project planning in accordance with Section 106 of the National Historic Preservation Act (NHPA).

This section provides a summary of the Section 106 process conducted for this project. Effect determinations were rendered for the Refined LPA, and a Memorandum of Agreement (MOA) was prepared because the FTA rendered "adverse effects". A copy of the MOA is included in Appendix A.

5.10.1 Regulatory Context

Because of potential federal participation, this project is required to be in compliance with Section 106 of the NHPA. In accordance with Section 106, the "effect" of the project on historic or archaeological resources must be determined by the federal agency proposing or regulating the project. There are three possible "effect" findings:

- No historic properties affected;
- No adverse effect; and
- Adverse effect.

"No historic properties affected" means that either there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them of any kind (that is, neither harmful nor beneficial). An "effect" means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register of Historic Places (NRHP).

"No adverse effect" means that there could be an effect, but the effect would not be harmful to those characteristics that qualify the property for inclusion in the NRHP. In other words, it would not diminish or adversely affect the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

An "adverse effect" means an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration is given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative. If an "adverse effect" is determined, a MOA between the federal agency and the State Historic Preservation Officer (SHPO) is prepared. Other parties are allowed to be MOA signatories.

5.10.2 Archaeological Resources

SHPD staff has indicated that because most of the project area is urban, with ground conditions consisting of fill and top soil that has already been highly disturbed by agriculture and construction, it is unlikely that the Refined LPA project area contains archaeological resources, such as archaeological and cultural remains, artifacts or sites, and Kupuna Iwi (ancestral native-Hawaiian burial site), at or near the ground surface.

No-Build Alternative

Under the No-Build Alternative, adverse effects to archaeological sites are not expected because no transit-related construction is proposed.

TSM Alternative

Like the No-Build Alternative, adverse effects to archaeological sites are not expected under the TSM Alternative because no transit-related construction is proposed.

Refined LPA

Construction of various elements of the Refined LPA, particularly certain segments of the In-Town BRT, could uncover subsurface archaeological resources.

Regional BRT elements will be constructed on existing roadways and rights-of-way with the exception of the Kapolei Transit Center and the North-South Road park-and-ride facility. The transit center and park-and-ride facility will be located on properties that have undergone substantial ground disturbance from past and present agricultural activities. Therefore, the probability of encountering archaeological resources would be very low.

Like the Regional BRT, the In-Town BRT will be constructed on existing roadways and rights-of-way, but may use embedded plate technology (see Section 2.2.3), which would require excavation along the alignments to install embedded plate modules and underground power cables. Off-street elements of the In-Town BRT include the TPSS at various locations.

Installing embedded plate modules and power cables would require excavation of about two to three feet deep along the corridor. This activity would have a moderate to high probability of uncovering subsurface archaeological resources along the following segments:

- Kamehameha Highway and Dillingham Boulevard in Kalihi;
- Chinatown, the Financial District and the Capital District in Downtown Honolulu;
- Kakaako;
- University of Hawaii; and
- Ala Moana and Waikiki.

Construction of the TPSSs along the above segments may also uncover subsurface archaeological resources.

5.10.3 Historic-Period Resources

There are no historic-period resources (historic buildings, structures and objects constructed or erected after western contact) within the Area of Potential Effect (APE) of the TSM Alternative.

As described in Section 3.10, the Refined LPA's APE for historic-period resources includes the non-street properties being used for transit stops, transit centers and park-and-rides, the Regional and In-Town BRT transitways (street and highway lanes), additional rights-of-way needed for the transitway and parcels directly adjacent to transit stops or transit centers. Table 5.10-1 lists the historic districts and historic-period resources within the APE of the In-Town BRT element of the Refined LPA. There are no historic-period resources within the APE of other elements of the Refined LPA. The transitway of the Regional BRT would only affect existing rights-of-way, and future transit centers and park-and-ride lots of the Regional BRT would be placed on vacant land (Kapolei Transit Center and North-South Road Park-and-Ride Lot).

As shown on Table 5.10-1, the Federal Transit Administration (FTA), through the City of Honolulu, Department of Transportation Services (DTS), has determined that the Refined LPA will have "no adverse effect" on many of the resources in the APE because they will not be affected by right-of-way acquisition, nor will they be affected by being in proximity to transit stops. Discussion of these historic-period resources, and why right-of-way impacts or being in proximity to transit stops will not cause them to be adversely affected by the project is provided below:

- The Fort Street Mall (Ewa-Bound) Transit Stop will be located next to the Portland Building. However, the building will not be directly affected. The transit stop will not be substantially different from the existing Union Mall bus stop, which has sheltered benches. Therefore, the stop was evaluated as having "no adverse effect" on the Portland Building.
- The UH-Manoa branch alignment on Kapiolani Boulevard near Sheridan Street will require a small amount of right-of-way on the property with a building containing the Blue Cross Animal Hospital. The building was constructed in 1938, and has maintained its architectural integrity. The FTA rendered a "no adverse effect" determination because the right-of-way take will not affect the building.

TABLE 5.10-1
EFFECT DETERMINATION ON HISTORIC PERIOD RESOURCES

Location	Resource	FTA/DTS Determination
Chinatown Transit Stop	Chinatown Historic District	Adverse Effect
	--Lung Doo Benevolent Society*	No Adverse Effect
	--Yew Char Building*	No Adverse Effect
	--Hotel Street Sidewalk Features	Adverse Effect
Union Mall Transit Stop	Portland Building	No Adverse Effect
Iolani Palace Transit Stop	Hawaii Capital Historic District	Adverse Effect
	--U.S. Post Office, Custom House and Court House (Federal Building)	Adverse Effect
	--Hawaii State Library	Adverse Effect
Thomas Square/NBC Transit Stop	Thomas Square	Adverse Effect
UH-Manoa transitway on Kapiolani Boulevard in the vicinity of Piikoi Street and Ala Moana/Keeaumoku Transit Stop	Kapiolani Boulevard historic landscape	Adverse Effect
	Blue Cross Animal Hospital*	No Adverse Effect
University/King Transit Stop	Varsity Theater*	No Adverse Effect
UH-Manoa Transit Stop	University of Hawaii Historic District	No Adverse Effect
	--Bachman Hall	No Adverse Effect
Bishop Transit Stop	Dillingham Transportation Building	No Adverse Effect
Ala Moana Park Transit Stop	Ala Moana Park	No Adverse Effect
Kapahulu Transit Stop	Kapiolani Park	No Adverse Effect[1]
Historic Sidewalk and Curb Elements		
Alakea Transit Stop	Lava curbs: Alakea Street between Queen Street and Nimitz Highway	Adverse Effect
Bishop Transit Stop	Lava curbs: Bishop Street between Queen Street and Nimitz Highway	Adverse Effect
Thomas Square/ Neal Blaisdell Center Transit Stop	Lava curbs: South King Street in front of Thomas Square and Neal Blaisdell Center	Adverse Effect
King/Pensacola Transit Stop	Lava curbs: South King Street in front of Kaiser Honolulu Clinic	Adverse Effect
Saratoga Transit Stop	Lava curbs: Saratoga Road, Ewa sidewalk	Adverse Effect

Source: Federal Transit Administration (FTA), through the City and County of Honolulu, Department of Transportation Services, July 2002.

Notes: * Preliminary assessment of historic based on consultation with the SHPD.
NBC: Neal Blaisdell Center
[1] The July 2002 effect determination rendered an "adverse effect" on Kapiolani Park, but due to the relocation of the Kapahulu Transit Stop, it was changed to a "no adverse effect".

- The University/King Transit Stop will be located near Varsity Theater. Since right-of-way will not be required from the building property and the transit stop will not use the sidewalk fronting the theater, a "no adverse effect" determination was rendered.

- The UH-Manoa Transit Stop will be within the University of Hawaii Historic District (State Site 80-14-1352), which contains several listed individually historic buildings and structures, such as Founders Gate and Hawaii Hall, as well as eligible buildings, such as Bachman Hall. Since the transit stop will be located at Sinclair Circle, which is already used as a bus terminus for the City Express route, providing a transit stop, even with sheltered benches and other furnishings, will not affect the historic integrity of the University, including the nearby Bachman Hall.

- The Bishop Transit Stop will be located near the Dillingham Transportation Building. The transit stop will be located on the opposite sidewalk from the historic structure, fronting the AMFAC center. Therefore, a "no adverse effect" determination was rendered.

- The Ala Moana Park Transit Stop will be on the sidewalk next to Ala Moana Park (State Site 80-14-1388), but will not require any park property, and will not affect the value of the property as a major regional park. The FTA rendered a "no adverse effect" determination because a relatively large bus shelter already occupies the site and has no effect on the historic characteristics of the park.
- The proposed Kapahulu Transit Stop was originally located on the sidewalk next to Kapiolani Park (State Site 80-14-9758) on the block between Kalakaua Avenue and the makai driveway of the Honolulu Zoo parking lot. Although no park property would have been acquired and use of the park would not have been affected, the FTA rendered an "adverse effect" determination because the stop's furnishings would have the potential to adversely affect the property's visual integrity (see Section 5.11). Since the July 2002 effect determinations, the Kapahulu Transit Stop was moved to a location on the mauka side of the parking lot driveway, but still within the roadway right-of-way. The backdrop of the relocated stop would be the landscaped zoo parking lot. Although the parking lot is part of the historic Kapiolani Park, it does not have nearly the same visual value or integrity as the park proper. Therefore, the effect determination regarding Kapiolani Park was changed to a "no adverse effect".

FTA, through DTS, rendered "adverse effect" determinations regarding two of the historic districts in the APE, Chinatown and the Capital District, and other historic-period resources that have visually integrity (i.e., views of the property are an important historic characteristic). The transit stops at or near these resources will include reconstruction of curbs and sidewalks and include benches, shelters, signage and other furnishings. Therefore, the transit stops have the potential to adversely affect the visual integrity of these properties. Discussion of the potential impacts to these historic-period resources is provided below.

Chinatown Historic District

The Chinatown Transit Stop will be located in the Chinatown Historic District (State Site 80-14-9986), which contains a large number of small businesses that utilize the street-level frontage of buildings for entrances and retail activities. Many shop owners utilize the sidewalk area for additional product displays, creating an outdoor street market atmosphere that contributes to the historic character of the district. The addition of a transit stop at the Hotel Street and Kekaulike Mall intersection could affect existing activities fronting a number of small street-level shops. In addition, Chinatown has a distinct architectural style, which will need to be reflected in the transit stop.

Hotel Street Sidewalk Features, which include granite paving blocks and lava rock curbs, were determined eligible for the NRHP in 1980 because of their contribution to the Chinatown Historic District. Since these curbs will be temporarily removed during construction of the transit stop, an "adverse effect" assessment was made regarding this specific historic property.

Although an "adverse effect" was rendered for the Chinatown district, the FTA determined that the transit stop will have "no adverse effect" on two nearby Chinatown buildings (see Table 5.10-1), Lung Doo Benevolent Society and Yew Char Buildings. Although both buildings will be adjacent to the stop, neither will be affected in a manner that will change their historic integrity.

Hawaii Capital Historic District

The Iolani Palace Transit Stop will be within the Hawaii Capital Historic District (State Site 80-14-1321), which includes numerous individual historic properties, such as Iolani Palace and Grounds, State Capitol, Honolulu Hale, and King Kamehameha Statue. The Koko-Head-bound stop will be in front of the U.S. Post Office, Custom House and Court House (State Site 80-14-9952), and the Ewa-bound stop will be in front of the Hawaii State Library (State Site 80-14-1307). The transit stops have the potential to adversely affect the district's visual integrity. The stops may also adversely affect the visual integrity of the U.S. Post Office, Custom House and Court House and the Hawaii State Library, even though a landscaped parking lot is in between the former and the Koko-Head-bound stop and the Ewa-bound stop will be set back from the sidewalk so as not to cause pedestrian congestion in front of the library (See Figure 5.4-4.).

Other Areas

The Thomas Square/NBC (Ewa-Bound) Transit Stop will be on the sidewalk next to Thomas Square (State Site 80-14-9990). Although no park property will be acquired and the value of the property as an urban park will not be affected (see Section 5.11), the FTA rendered an "adverse effect" determination because the transit stop's furnishings may adversely affect the visual integrity of the property.

The transitway along Kapiolani Boulevard and the Ala Moana/Keeaumoku Transit Stop will displace some of the monkeypod trees that are part of the Kapiolani Boulevard historic landscape. Although the project has committed to relocating all affected notable and healthy trees, the FTA rendered an "adverse effect" determination because of the tree displacements (see Section 5.7.1).

The FTA has determined that the Alakea Street, Bishop Street, Thomas Square/NBC, King/Pensacola and Saratoga Transit Stops will "adversely affect" lava rock curbs, which are considered "historic" by the SHPD, because they will be temporarily removed during construction, similar to the impacts described above regarding the Hotel Street Sidewalk Features.

5.10.4 Traditional Cultural Properties

Traditional cultural properties (TCPs), like archaeological and historic-period resources, are another type of historic properties that are afforded protection under Section 106. Some of the identified TCPs in the study area are from the many ethnicities and cultures of Hawaii that have adapted to the urbanized environment of Honolulu. The TCPs within the APE affected by the Refined LPA are Chinatown and Kupuna Iwi. Potential impacts to Chinatown are discussed in Section 5.10.3. Potential impacts to Kupuna Iwi are discussed in Section 5.10.2, and may be an issue during construction in certain areas.

5.10.5 Mitigation Measures

1) Construction

The project's MOA specifies that archaeological monitoring will be conducted during excavation in areas along the In-Town BRT alignment with moderate to high levels of probability of uncovering archaeological resources (see Appendix A). However, the monitoring stipulations for the In-Town BRT would only apply if the embedded plate technology were used.

If a burial or archaeological artifact is uncovered during construction, regardless of archaeological monitoring, work will stop and the SHPD will be notified immediately. Should a burial site be found during construction, specific legal procedures and cultural practices, such as involvement by the Oahu Island Burial Council, will need to be performed as specified in the MOA. Construction would resume upon approval of the appropriate authorities.

2) Historic Districts and Historic-Period Resources

The design of the transit stops in historic districts or near historic buildings with high visual integrity will be developed so that they are compatible with the surrounding area.

The project's MOA contains stipulations that require consultation with the SHPD and other stakeholders on the design of those transit stops that may adversely affect historic properties. The consultation will focus on the type, number and size of structures, architectural style, and protection of important viewsheds and historic characteristics of affected properties. DTS agreed to conduct a good faith effort to consider and understand the historic preservation concerns communicated by the SHPD and other stakeholders, and to reflect these concerns in its plans and design of affected transit stops. Meanwhile, SHPD agreed to conduct a good faith

effort to consider and understand the service needs of future In-Town BRT riders, such as compliance with the Americans with Disabilities Act and protection from the elements.

5.10.6 Coordination

Consultation with the SHPD and stakeholders will continue as additional project details are developed and studies continue, as specified in the MOA.

5.11 PARKLANDS AND SECTION 4(f) EVALUATION

This section discusses potential impacts to parks and recreational resources in the project area. None of the alternatives would change the character, function or use of any park or recreational resource in the study area, although the two build alternatives will use the Aloha Stadium Kamehameha Highway (overflow) parking lot as a transit center/park-and-ride lot. The TSM Alternative and the Refined LPA would enhance transit access to parks and recreational resources in the project area by improving the level of transit service to parks along the alignments of these alternatives.

Vehicular access to Ala Moana Regional Park would be adversely affected under the Refined LPA because of the conversion of two general-purpose lanes to transit lanes on both Ala Moana and Kapiolani Boulevards.

5.11.1 Impacts to Parks and Recreation Areas

With the exception of the Aloha Stadium overflow parking lot, none of the alternatives would require land from or cause proximity impacts to any existing park or recreational resource. In general, the Refined LPA, and to a lesser extent the TSM Alternative, would enhance the value of the park and recreational resources in the study area by improving their accessibility for transit users. However, there is the potential for indirect impacts because of changes proposed to certain roadways and the proposed locations of certain transit stops near visually important parks.

The In-Town BRT element of the Refined LPA would reprioritize general-purpose lanes on major arterials in Honolulu. As a result, automobile access to Ala Moana Regional Park would be reduced. On-street parking along Ala Moana Boulevard near the park, which is allowed on most weekends and holidays, would be eliminated. The TSM Alternative would convert certain general-purpose lanes to semi-exclusive bus lanes, which would also require the removal of on-street parking. There would not be any impacts under the No-Build Alternative because roadway capacity for automobiles and parking would not change.

As noted in Section 5.4, Visual and Aesthetic Resources, proposed transit stops adjacent to Thomas Square, Ala Moana Park and Kapiolani Park have the potential to adversely affect the aesthetic characteristics of these parks, even though these transit stops will not use park property. Therefore, these transit stops will require special design treatment because of their proximity to these parks. Please see Sections 5.4.2 and 5.10.5 for proposed mitigation.

5.11.2 Section 4(f) Evaluation

Section 4(f) of the Department of Transportation Act, 49 U.S.C. 303 and 23 U.S.C. 138 (referred to hereafter as "Section 4(f)"), permits the use of land for a transportation project from a significant publicly owned public park, recreation area, wildlife and waterfowl refuge, or a historic site only when it has been determined that there is no feasible and prudent alternative to such use; and the project includes all possible planning to minimize harm to the property resulting from such use. The purpose of Section 4(f) is to limit the circumstances under which such land can be "used" for transportation projects. The word "use" in this case means:

- land is permanently incorporated into a transportation facility;

- there is a temporary occupancy of land that is adverse in terms of preservation of the resource; or
- the project's proximity to the site substantially impairs those functions that qualify the site as a Section 4(f) resource even though no land is permanently or temporarily acquired. This is called "constructive use."

The avoidance of Section 4(f) resources was an important consideration in developing and screening the alternatives. Therefore, of the many existing and planned public parks and recreational resources and historic properties in the project area identified in Sections 3.11 and 3.10, respectively, none will be affected by the alternatives such that there would be a Section 4(f) use. Although elements of the Refined LPA will traverse historic districts, no buildings important to the integrity of these districts will experience a Section 4(f) use. Also, there will be no Section 4(f) use of the Kapiolani Boulevard historic landscape and the lava rock curbs considered "historic" by the SHPD (see Section 5.10.3) because both resources are within roadway rights-of-way. The project's MOA (see Appendix A) specifies the relocation of affected trees and replanting of the Kapiolani Boulevard Historic Landscape to maintain its historic characteristics. The MOA also specified that historic sidewalk and curb elements be reused possibly as part of the project if practical.

There will be no cases of constructive use. For example, the loss of weekend/holiday parking on Ala Moana Boulevard would not be a constructive use because this would not cause Ala Moana Park's value in terms of public enjoyment to be substantially reduced. Park users will still be able to access the park by private vehicle, by buses or by BRT. In addition, transit stops in proximity to Thomas Square, Ala Moana Park and Kapiolani Park will not in any way affect park usage or the recreational value of these parks.

5.12 IMPACTS OF CONSTRUCTION ACTIVITIES

5.12.1 Overview

This section presents an assessment of the temporary impacts of construction and mitigation measures related to those impacts. A more detailed discussion of construction techniques for the various project elements is in the Construction Technical Memorandum (March 2000). The Refined LPA along with many of the other transit facilities related to the Refined LPA would be placed within the same rights-of-way as the existing surface roadway system, which must remain operational throughout construction. The project is being planned, designed and scheduled to meet this challenge with minimal disruption. However, some impacts on the environment, nearby facilities, and established patterns of activity are inevitable. These impacts would be temporary, and their severity would depend largely on the type of construction methods employed, how it would be carried out, and what controls are exercised.

The No-Build Alternative has the fewest impacts. The TSM Alternative has slightly more. The TSM Alternative mainly involves operational changes to the bus system and these changes in themselves are not considered in this document. The Refined LPA incorporates the TSM Alternative but includes additional new construction and therefore has a greater impact. The Refined LPA will require standard construction mitigation measures including noise, dust, sediment, and erosion control.

5.12.2 Transportation and Circulation

Most of the impacts to land-based transportation are associated with the Refined LPA. The No-Build and TSM Alternatives would have little impact on traffic during implementation.

The Construction Management Program would include development of a "Maintenance of Traffic Plan". This plan, which will be reviewed and approved by the City Department of Planning and Permitting (DPP), would include systemwide as well as subarea consideration of the most important traffic and transportation issues and mitigation measures. Specifically, the plan would include:

- Overall maintenance of traffic and transportation goals, project commitments, and identification of key project elements which have been specifically designed to meet maintenance of traffic objectives;

- A systemwide maintenance of traffic program to maintain mobility and accessibility and to address project-wide issues such as parking, commuter transportation systems and traffic system management;
- Project subarea maintenance of traffic measures focused on the specific detours, disruptions, problems, and issues expected in each subarea during each stage of construction;
- A coordination program for continued development of the Maintenance of Traffic Plan, including provisions for interaction with public agencies, local communities and the private sector; and
- Procedures for finalizing, monitoring, and implementing the Maintenance of Traffic Plan during construction, as a part of the Construction Management Program.

The Plan would include such policies as:

- Construction activities which would close traffic lanes would be restricted to off-peak hours whenever feasible;
- Construction activities would be phased so as to minimize traffic impacts to any one area;
- During final design, detailed Work Zone Traffic Control Plans, which would include detour plans, would be formulated in cooperation with all affected jurisdictions;
- Existing bus service would be maintained, as well as vehicle and pedestrian movements;
- Unless unforeseen circumstances dictate, no designated major or secondary highway would be closed to vehicular or pedestrian traffic. No local street or alley would be completely closed, preventing vehicular or pedestrian access to residences, businesses or other establishments; and
- An extensive public information program would be implemented which would provide motorists, residents and businesses with information on the location and duration of construction activities, and anticipated traffic conditions.

Truck traffic will be using existing routes except near construction areas. Signage and traffic cones would be provided to re-route truck traffic around construction zones where necessary.

Bus routes and stops would generally be maintained, although buses may be re-routed over temporary detours and bus stops may be temporarily relocated. Moreover, public transportation facilities and services would be expanded during project construction as part of the Maintenance of Traffic Plan.

Bicycle routes would be included in the re-routing of surface transportation systems. Signage would be provided to re-route established bicycle facilities around construction zones.

Local access to residences and businesses would be maintained during all phases of the construction work. Pedestrian movements would be maintained, but may be temporarily relocated to provide safe passage through work areas. Alternative pedestrian routes, including attractive, well-lighted, safe walkways, would be provided around or through construction areas.

Measures to minimize the impact of loss of parking during construction would be implemented, including temporary parking facilities, staging of construction to minimize parking loss, and remote parking for project construction workers.

In most cases, the nature of the construction for the In-Town BRT would not require street closures or detours because much of the work would occur in the median or curb lanes of the roadway, allowing vehicles to pass the construction zone using the remaining lanes. Although there would be localized lane reductions in the construction area, curb parking would be temporarily and/or permanently eliminated in many places, so that traffic flow using the remaining lanes would be maintained under most situations. (Parking losses and mitigation measures are discussed more fully in Section 4.2.4). Some presently allowed turning movements could be restricted when construction is occurring within an intersection.

The Refined LPA (and to a very minor extent, the TSM Alternative) would create truck traffic associated with the transport of construction materials and wastes. Times and routes of construction vehicles would be planned as part of the development of the Maintenance of Traffic Plan. Planning would occur with the intent of minimizing the effect of construction traffic.

5.12.3 Displacements, Relocation and Restricted Access for Existing Uses

Section 5.2 discusses permanent displacements and relocations that could be necessary for the project. The discussion in this section is limited to only those areas that would be needed temporarily during construction.

The Refined LPA would require temporary areas for construction staging of the In-Town BRT transitways. There are a number of vacant sites along the alignment that could serve as construction staging areas.

Staging areas would also be necessary for construction of the Regional BRT ramp and zipper lane improvements.

5.12.4 Neighborhoods and Businesses

Adverse impacts to neighborhoods and businesses near construction sites would be related primarily to disruptions of local transportation and circulation patterns, and air and noise emissions caused by construction vehicles and equipment, and vehicles delayed by construction. Air quality and noise impacts during construction and proposed mitigation measures are discussed in Sections 5.12.5 and 5.12.6.

Although a maintenance of traffic plan will be prepared and implemented (see Section 5.12.2), construction will cause motorists, bicyclists and pedestrians to experience delay and inconvenience when traveling on affected streets undergoing construction activities. Bus routes on or crossing affected streets will generally be maintained throughout the construction period, but they may be routed over localized, temporary detours, and bus stops may be temporarily relocated.

Local access to residences, businesses, and nearby parks, such as Thomas Square and Ala Moana Park, will be maintained when construction is conducted on adjacent roadways. However, travel to and from these destinations may be delayed as a result of increased congestion levels. Pedestrian movements will be maintained, but may be temporarily relocated to provide safe passage through work areas. Existing bike lanes, such as those along University Avenue, will be temporarily closed when construction is conducted on affected streets.

Even with an effective maintenance of traffic plan (see Section 5.12.2), construction-related traffic disruptions will cause inconveniences to residents living near construction sites, and may cause certain businesses to lose revenue, especially those that rely on drive-by customers. These types of businesses include fast-food restaurants and convenience stores. Construction on a particular street would cause some motorists to choose alternate routes, bypassing those businesses along affected streets.

5.12.5 Air Quality

Contractors would be required to comply with all applicable air quality laws to limit adverse effects on air quality from demolition, clearing, material processing and construction activities, as well as from construction vehicles.

Construction would cause emissions of fugitive dust, airborne particulate matter of relatively large size. Fugitive dust would be generated by particulate matter being kicked up by such activities as excavation, demolition, clearing, stockpiling, hauling, vehicle movement, and dirt tracking onto paved surfaces at access

points. Fugitive dust also would be generated from the material processing and storage that would occur at the stockpile areas associated with recycling usable portions of excavated material.

To minimize the amount of construction-generated fugitive dust, the following measures would be followed:

- minimize land disturbance;
- apply water or other environmentally acceptable material to control dust generation;
- cover trucks when hauling dirt or other dust-generating materials;
- stabilize the surface of dirt piles if not removed immediately or other material storage areas;
- use windbreaks;
- limit vehicular paths and stabilize temporary roads;
- pave all unpaved construction roads and parking areas to road grade for a length no less than 50 feet where such roads and parking areas exit the construction site;
- use dust suppressants on traveled paths that are not paved;
- apply dust control and suppression techniques to the material processing activities at the stockpile sites;
- remove unused material and dirt piles when they are no longer needed; and
- revegetate areas where existing landscaping was removed for construction.

As discussed in Section 3.5, carbon monoxide (CO) is the principal pollutant of concern in localized areas. Since emissions of CO from motor vehicles increase with decreasing vehicle speed, disruption of traffic during construction could result in short-term elevated concentrations of CO. To minimize CO emissions, efforts would be made during construction to limit disruptions to traffic through prior planning of alternate routing, traffic control, and public notices, especially during peak travel periods.

5.12.6 Noise and Vibration

Construction noise would adversely affect nearby residences, schools, office buildings, and other noise-sensitive activities.

Table 5.12-1 presents typical maximum noise levels (Lmax) of heavy mobile construction equipment and compressors measured at a distance of 50 feet. Since construction activities would take place within 50 feet of noise sensitive receptors, the values in Table 5.12-1 would be representative of the noise levels to be expected during various stages of construction.

To minimize the level of impact, a specification for noise and vibration limits from construction activities would be developed and enforced. The specification would be submitted to Hawaii Dept. of Health (HDOH) for their review. An industrial hygienist would monitor compliance with the specification during construction through on-site noise and vibration monitoring during various stages of construction.

The HDOH also has Community Noise Control standards, which apply to construction noise. The project cannot exceed the noise levels stipulated by these standards unless a Noise Permit and/or Variance is granted by HDOH. Variances are only granted if they are in the public interest and the construction noise would not substantially endanger human health and safety.

The Construction Management Program would explicitly address the minimization of noise levels generated during construction, and would include the following mitigation measures:

- Design Considerations: during the early stages of Construction Management Plan development, the deployment of noisy equipment would be considered. For example, no stationary equipment would be located near schools or hospitals;

TABLE 5.12-1
CONSTRUCTION EQUIPMENT NOISE EMISSION LEVELS

Equipment	Typical Noise Level (dBA) 50 feet from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Paver	89
Pile Driver (Impact)	101
Pile Driver (Sonic)	96
Pneumatic Tool	85
Pump	76
Rock Drill	98
Roller	74
Saw	76
Scarifier	83
Scraper	89
Shovel	82
Truck	88

Source: *Transit Noise and Vibration Impact Assessment*, Federal Transit Administration (FTA), 1995.

- Sequence of Operations: noisy operations would be scheduled to occur at the same time (as opposed to being spread throughout the day), and, as feasible, noisy operations would be scheduled to occur when schools are not in session or other noise sensitive activities are not occurring;
- Noise barriers would be employed where feasible;
- Source Control: many types of noise emissions can be controlled at the source and in such cases, noise reduction systems would be employed. For example, noise reducing muffler systems lower exhaust noise by at least 10 dBA; and
- Time and Activity Constraints: as much as possible, noisier activities would be limited to daytime hours.

Vibration levels at adjacent structures would be monitored and the structures protected from vibration impacts, as necessary.

5.12.7 Water Quality

During construction, impacts to surface and groundwater resources potentially could occur. Impacts to surface water would be associated with point and non-point source stormwater discharges and dewatering discharges. These discharges could contain particulate (sediment) and chemical contaminants. Potential

sediment sources include unstabilized, exposed soil at excavations; drainage from material stockpiles; discharges from haul trucks; and dewatering activities.

Sediment and Erosion Control

Erosion and sediment discharges would be minimized through the application of Best Management Practices (BMPs) techniques designed to minimize erosion and capture sediment prior to discharge. Examples of BMPs include:

- Use of chemical crusting agents or other stockpile coverings;
- planting of vegetation and/or mulching on highly erodible or critically eroding areas;
- Use of temporary landscaping;
- Use of silt fences;
- Use of sediment control traps,
- Use of straw bale filters,
- proper design and construction of access roads;
- use of inlet system sediment control traps;
- installation of debris basins;
- use of stilling basins to reduce the levels of sediments and other pollutants entering surface and coastal waters;
- construction of dikes or diversions to avoid runoff across erodible areas; and
- monitoring of sediment discharge.

Together, the BMPs would effectively minimize the potential for water quality impacts or off-site impacts from eroded material. Important BMPs would include maintenance of the sediment and erosion control systems, an ongoing monitoring program to determine the effectiveness of the BMPs, and adjusting the sediment and erosion control program as required.

Details of the BMPs would be developed during final design stages and detailed erosion and sediment control plans would be included in the final construction plans for the project. Through the agency reviews conducted as part of the permit process, the use of proper sediment control techniques would be assured.

Studies at specific locations to identify potential chemical contaminants in dewatering and stormwater discharges and stockpile drainage would be performed during later design phases, and appropriate treatment measures would be employed based on the character of the discharge and the water quality standards of the receiving water body.

Spills associated with construction activities pose a potential threat to water resources. Development of a Spill Containment Control and Countermeasure Plan, including maintenance of clean-up equipment on-site, along with detailed spill prevention measures, would mitigate the impact of inadvertent releases.

Dewatering Discharges

For most construction operations, groundwater encountered during excavations would need to be removed during construction (dewatering), and groundwater disposal and ground subsidence would have to be considered. Such dewatering would be temporary, limited to the time required for excavation and construction.

The water removed from excavations must be returned to the groundwater system, added to the stormwater drainage system or discharged to adjacent surface waters. The groundwater would contain suspended

sediment and possibly chemical contaminants, and could adversely affect the water quality of receiving surface water bodies by increasing their turbidity and sedimentation rates.

Any dewatering discharge would require a dewatering permit that could only be obtained after designing an appropriate treatment process to ensure that the discharge meets water quality standards. For example, sediment would be removed prior to discharge through a sedimentation or filtering system. A monitoring program would assure compliance with water quality standards.

The groundwater could be contaminated (e.g., petroleum product) at several locations where excavations are required. The contamination potential would be studied in subsequent stages of project planning. Contaminants would be removed in accordance with standards established by the State of Hawaii Department of Health. For example, removal of petroleum products might require the use of oil water separators, strippers or other remediation techniques. Additional studies would be required during the final design phase to determine the precise methods to be employed.

Depression of the natural groundwater table caused by dewatering can induce consolidation of subsoil and subsequent ground settlement (subsidence). Subsidence can cause cracking and other damage to buildings and facilities. To mitigate the potential impacts of subsidence, a structural survey of buildings, roadways and other facilities adjacent to dewatering sites would be performed prior to construction. During construction, a monitoring program would be conducted that would include such techniques as inclinometers to measure relative lateral movement of soil at different elevations, settlement points, and observation wells to study groundwater draw down. Monitoring data would be reviewed immediately to ensure minimal disturbance to existing facilities. Recharging the groundwater outside the excavation and other measures could be utilized to help minimize the effects of dewatering.

The project area is underlain by the Southern Oahu Basal Aquifer (SOBA). Mitigation measures, as discussed above, would be implemented during construction to ensure that no adverse effects on the aquifer would occur.

Construction Equipment Use and Maintenance

Since many of the proposed facilities would be built using cast-in-place concrete construction, large amounts of concrete would be transported to the construction site. Each time concrete is transported, residue remaining in the concrete truck must be washed out before it hardens. This wastewater contains fine particles and could cause sedimentation and turbidity if discharged to surface waters.

Concrete trucks would be washed out in accordance with procedures to ensure that water quality standards are not violated. Project specifications would prohibit the washing out of concrete trucks at the project site, or a filtration or settling system would be constructed to prevent fine material from being discharged into surface waters.

The use and maintenance of construction equipment can pose a threat to surface and ground waters. Potential spills associated with vehicle maintenance, such as changing oil and refueling equipment, can introduce new contaminants into the environment at the construction staging area. The servicing and maintenance of construction equipment would be restricted to the base yards of the mobile equipment. At these vehicle maintenance areas, strict enforcement of BMPs would be required. Clean up equipment would be maintained on site and clean up response plans would contain detailed spill response measures.

5.12.8 Ecosystems

Wildlife habitat is very limited along the transitways and at other sites proposed for road, ramp and transit center construction. Construction would directly affect individuals of species inhabiting the construction area that are relatively immobile or have small home ranges. The removal of this habitat would have little overall

effect on wildlife populations. The sites do not represent unique or special habitats within the project area. The proposed build alternatives would have no major effect on the characteristics or size of populations of the resident wildlife species in the area.

The Regional and In-Town BRT alignments of the Refined LPA will cross streams in the study area on existing structures (bridges). Some of these bridges will require widening, but most of them, if not all, will not require new or reconstructed bridge piers within the streams. New piers may be necessary for a bridge widening at the Waiawa Interchange, but the need for new piers will not be determined until the final design phase. Construction of any piers would be in association with pre-existing bridges. Wherever possible, additional foundations or piers in the streams would be avoided. Construction impacts to water quality that may affect aquatic wildlife would be avoided through mitigation measures agreed to by the ACOE, the HDOH, and the DLNR during final design.

Every precaution possible will be taken during construction to protect street trees. The tree impacts of the Refined LPA are described in Section 5.7. The construction impacts will consist of permanent removals and/or relocations of trees that are not compatible with the road widening requirements of the project, as well as tree trimming. Mitigation is addressed in Section 5.7 and will be described in detail in the tree preservation plan to be developed with a qualified certified arborist. A qualified certified arborist will also prepare a tree protection plan to be used during construction. The plan will specify precautionary measures to be taken to protect trees that are being relocated, as well as measures to protect other nearby trees during construction. Community input will be a component in preparing the tree protection plan. Construction mitigation measures will include tree protection zones that will be observed, except in cases where earthwork at or near the base of a tree is necessary, construction watering of trees, and prohibiting construction vehicles from being parked under trees to avoid soil compaction. A Street Tree Review will also be conducted by the DPP as part of the construction plan review by the City. The DPP's Street Tree Review applies only to those trees not located within a Special Design District.

In general, monkeypod trees pruned for replanting will take about one year to grow back their canopies, with full recovery expected in three to five years. The Kamani trees on Dillingham Boulevard will take a little longer to recover fully, about four to eight years.

5.12.9 Solid and Hazardous Wastes

1) Solid Waste

The volumes of solid waste that would be generated with all of the alternatives are not anticipated to be beyond the ability of existing landfills to handle. Coordination would be conducted with the DPP for a grubbing, grading, and stockpiling permit. Waste generated by grubbing of the sites and all wastes generated during construction will be disposed of properly.

2) Contaminated Materials

While chemicals would not contaminate much of the solid waste that would be generated by construction, portions of the solid waste would likely be contaminated. Contaminants that could exist in solid wastes generated by construction include petroleum hydrocarbons, pesticides, herbicides, organic solvents, metals, PCBs, corrosives, organic lead, contaminants contained in landfill leachate, and other parameters. For these contaminated fractions of the solid waste stream, the level of impact would depend upon:

- the type of contamination;
- location of the area generating the contaminated wastes;
- proximity to surface waters;
- groundwater flow direction and depth relative to site;
- whether a contaminant release has occurred on the property;

- status of the release;
- the nature and extent of such release;
- the proximity of the release to the alignment; and
- the nature of project construction activities near a potentially contaminated area.

A hazardous materials study was conducted in order to help identify potentially contaminated sites that would have an adverse impact on the project. Section 3.9 discusses the relationship of the Refined LPA to potentially contaminated sites.

The information provided for this study phase is not detailed enough to make an exact determination of potential impacts. It is merely an identification of sites where a potential source of contamination may exist. Contamination can only be positively identified by sampling and laboratory analysis. There is the possibility that the project could affect sites that were not identified in the study or that sites identified as potential sources of contamination would not have an adverse impact on the project. During future phases of the project, additional evaluation would be required to provide more information on construction activities of the Refined LPA. The additional evaluations could include, but not necessarily be limited to: additional record review, agency consultation, and soil, surface water, and groundwater sampling and analysis. For example, additional Phase I investigations of hazardous material sites would be completed where appropriate during the design phase. Specific recommendations, which could include Phase II sampling, would be prepared.

The presence of asbestos-containing material and lead-based paint must be assessed for buildings, which would be razed as part of project construction. As part of assembling the right-of-way for the project, buildings that would be acquired would be evaluated for hazardous materials and possible additional demolition costs.

The Refined LPA bus routes themselves are not expected to involve contamination, because the transit vehicles will travel on existing roadways. As discussed in Section 3.9, only off street transit facilities such as transit centers and traction power supply stations (TPSS) may have the potential for petroleum, PCB, or other hazardous material contamination. The approximately 15 TPSS sites to be located intermittently along the In-Town BRT alignment would each have a roughly 500 square-foot footprint. In most cases, they would be located inside existing or proposed buildings. Potential TPSS locations are designated on the preliminary engineering drawings provided in Appendix B (see Volume 4). However, since it would be 8 to 14 years before the EPT is installed depending on the segment, the locations shown on the design drawings are not site specific; each notation is intended only to indicate the general vicinity in which a TPSS would be placed. Site specific environmental assessments of each TPSS would be prepared prior to proceeding with implementation of EPT. Locations and design treatments would be established with community input.

The selection of mitigation measures would consider avoidance of exposure, minimizing impacts through redesign, and remediation. The need for and type of mitigation measures that would be required would depend on the nature of the contamination, the construction methods and the development plans (i.e. where structures and pavements will be located). The information collected during additional evaluations would be used to define the impacts and develop appropriate measures to minimize or eliminate any adverse impacts from site contamination.

In addition, issues relating to worker health and safety are required to be considered during construction because the health and safety of on-site personnel could be affected if they are exposed to contaminants. When contaminants are identified, the level of Personal Protective Equipment (PPE) that may be required and/or the need for special handling procedures would be assessed. However, it is likely that many types of contaminants that would be encountered would not require special protective equipment, but would require special handling to reduce potential exposure. A Contaminant Management Plan (CMP) detailing contaminant handling procedures and remedial response action would be prepared.

Project specifications should note the potential presence of methane at certain sites and at certain areas along the In-Town BRT route, and should require the contractor to take appropriate measures to protect workers.

Next steps would depend on whether the contaminated site was already owned by a government agency or whether site acquisition from a private owner is contemplated. If the site was to be acquired, necessary remediation activities would become a factor in the real estate negotiations. Often, the present owner is required to remediate the site before transfer to government ownership. Tenants should be required to remove all their equipment and materials when they vacate the properties.

Any site remediation would be performed in accordance with applicable State and federal laws. Required monitoring and remediation plans would be designed in coordination with the HDOH and other agencies, and the plans would be implemented prior to construction. Both soil and groundwater contamination would be addressed. In addition, the contractor would develop an Emergency Response Plan in coordination with the HDOH and other agencies to establish procedures should hazardous materials be encountered during construction. The handling, treatment, and disposal of any contaminated materials encountered would occur in full compliance with all appropriate requirements.

5.12.10 Utility Service

The Refined LPA would affect few major utilities but many minor ones, particularly if the embedded-plate traction power system is selected. Substantial planning would occur so that interruptions in utility service to customers are minimized. Coordination with utility providers during planning, final design, and construction would identify problems and provide opportunities to resolve them prior to construction. Replacement and/or relocation of utilities would be closely coordinated with roadwork and stop construction to minimize disruption to adjacent properties and traffic. Disruptions to utility service, if necessary, would be restricted to short-term localized events. Careful scheduling of these disruptions and prior notification of adjacent properties that would be affected by temporary service cut-off would mitigate some of the utility relocation impacts.

Many of the utilities that are to be buried underground or moved to another underground location could be relocated simultaneously with existing utilities to minimize the need for multiple excavations. As much as possible, relocated utilities would be buried together or coordinated with infrastructure improvements already planned by the City or other agencies.

A preliminary review of the Refined LPA alignment, stops, and transit centers in relation to siren locations for the Civil Defense Warning System indicates that no significant impact will occur. If sirens need to be relocated as a result of the project, they would remain in the same vicinity and be placed and designed to maintain comprehensive emergency warning coverage. Locations would be coordinated with Oahu Civil Defense during final design.

Coordination of utility relocations would be scheduled, programmed, and monitored as a part of the Construction Management Plan and Public Participation Program.

5.12.11 Economic

Construction activities associated with the Refined LPA would result in over 9,400 person-year jobs generated (see Section 5.1.5). During construction of the Refined LPA, local businesses could be negatively affected by increased congestion in front of their properties or by reduced access. Location-specific measures, including access, safety, noise and aesthetic requirements of adjacent businesses, would be identified during final design and incorporated into construction contracts. A public information program for commuters, tourists, local residents and the business community would be sustained. A community and government agency mitigation involvement program would be initiated to allow for the exchange of information and ideas.

5.12.12 Aesthetic and Visual

The construction work for the Refined LPA would occur in highly visible and traveled areas. Therefore, orderly and clean work sites would be required and enforced throughout construction. Landscaping would be left in place and protected for as long as possible and replaced as soon after construction as possible. Plans for re-landscaping the impacted areas will be reviewed by the DPP to maintain cohesive visual corridors.

5.12.13 Historic Resources and Archaeology

Discussion of the potential impacts on historic properties is provided in Section 5.10. Historic-period resources will not be affected by construction because these properties will not be in the construction area, nor will they be used to store equipment and vehicles or used as staging areas. There is a chance that construction along certain sections of the study area, such as in Waikiki, would uncover Kupuna Iwi (ancestral bones) or other archaeological artifacts. However, the project area is mostly urban and has been substantially altered for many years. In addition, most of the project requires little excavation. The project's MOA will provide procedures in the unlikely event that unanticipated resources are encountered during construction. The SHPO would be notified immediately if any bones, artifacts or other signs of historic occupation are observed.

5.13 OTHER ENVIRONMENTAL CONSIDERATIONS

5.13.1 Indirect Impacts

Indirect impacts (also referred to as secondary impacts) are those caused by the proposed action and are "later in time or farther removed in distance, but still reasonably foreseeable…." (40 CFR 1508.8)

Because investment in a fixed transitway can have major effect on land use and development, the largest indirect impact of the Refined LPA is that of inducing transit-oriented development, as discussed in more detail in Section 5.1. The route of the Refined LPA was selected for its consistency with officially adopted land use plans that direct and manage growth. A transportation system, like other infrastructure, is part of the management of such growth. The Refined LPA will constitute a governmental investment in a fixed transit system, reinforcing long-term patterns for the primary urban center.

The Refined LPA may stimulate planned commercial and residential development, such as in Kakaako, Kapolei, and the UH West Hawaii campus, among others – all areas designated for growth and development. Transit-oriented development and/or re-development such as mixed-use high-density residences and pedestrian-scale commercial districts could flourish in areas immediately surrounding transit centers and transit stops, which may otherwise take longer to develop. Higher land values may provide opportunities for urban renewal in areas that previously would not have been feasible to redevelop.

These changes will encourage some agricultural lands in Ewa and Central Oahu to be converted to urban use. Development of areas surrounding transit centers and transit stops would be guided by existing and proposed land uses, plans, regulations, zoning, and market conditions.

Such developments spurred by improvements in transit may result in additional demands on water and energy resources, civil services, and infrastructure, as well as some adverse impacts on air and water quality, additional pollution. Again, official government policies call for concentration of such services as a matter of policy.

5.13.2 Cumulative Impacts

A cumulative impact is an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions...." (40 CFR 1508.7).

The cumulative impacts of an investment in transportation infrastructure in the primary transportation corridor would stem from urban development and re-development, as described in Section 5.13.1 above. Since a key purpose of this project is to focus future development in the urban core and Kapolei, the cumulative impacts of the project are viewed as positive. Investment in other infrastructure systems will be necessary to support the increase in development density. Without the project, urban living would be less attractive, and low density and sprawl development would continue. Continuation of current low density development patterns is inconsistent with the vision for Oahu that was articulated by the public during the Oahu Trans 2K community involvement activities, and is inconsistent with the project purpose of concentrating development. Further discussion of possible cumulative impacts resulting from the project is provided below.

1) Land Use

The No-Build Alternative would result in deterioration in current levels of mobility as existing suburban growth patterns continue along with an increase in vehicles on the roadways. In the absence of sufficient people-carrying capacity, it would be more difficult to achieve the desired concentrated growth pattern. The No-Build Alternative would encourage suburban growth patterns and the conversion of open space to low density subdivisions.

With the TSM Alternative, people-carrying capacity would be increased, but not to a degree sufficient to encourage the types of transit-oriented developments that would arise with the Refined LPA.

The Refined LPA would substantially enhance mobility by increasing people-carrying capacity. Growth would be attracted to locations along the alignment of the In-Town BRT system in the urban core.

Higher density redevelopment in a transit-supportive manner, particularly at transit centers and transit stops, would be encouraged. The Refined LPA would be more effective than the TSM and No-Build Alternatives in supporting an urban growth strategy that integrates land use and infrastructure planning. It would help facilitate desired land use development patterns consistent with the vision for the island.

2) Farmland

Agricultural activities occur in Ewa and Central Oahu. State and City policies encourage urban development, particularly in Ewa. Consistent with State and City policies, urban development would convert some open space to urban land uses.

3) Displacements and Relocations

Subsequent urban development and redevelopment projects and those associated with the Refined LPA could displace existing land uses temporarily as well as permanently. These displacements would be specified and analyzed during the environmental review of the subsequent development projects.

4) Socioeconomic

After the transportation investment is made, subsequent developments would enhance short- and long-term employment. Economic efficiency would increase through the improvement of transportation service and mobility.

5) Transportation

Planned transportation projects, including the alternatives addressed in this document, would enhance transportation service and mobility.

6) Air Quality and Noise

The project area has good ambient air quality conditions (see Section 3.5), and planned projects or developments would not substantially change air quality.

As urban development proceeds and density increases, ambient noise levels from various human activities may be expected to rise.

7) Water Resources

Impacts on water resources are highly regulated. As urban development proceeds, water quality impacts of each project would be assessed during the environmental review and permitting processes.

8) Biological

Subsequent development would affect ecosystems in the primary transportation corridor, but such ecosystems are already highly modified by human activity. Existing ecosystems would be replaced by incorporating appropriate landscaping into each development project. The biological impacts of each project would be assessed through its environmental review process

9) Historic and Archaeological

Historic buildings and structures are protected under federal and State law. As subsequent development proceeds, project proponents are required to coordinate with the SHPD before construction affects an historic property. Impacts to archaeological sites are not expected because the primary transportation corridor is largely urban or previously disturbed open space. However, should there be inadvertent encounters with burials, the SHPD must be informed, and appropriate actions taken.

10) Parklands

The parklands of Oahu are publicly owned. Development associated with the Refined LPA would not affect parklands except to provide for greater access. Subsequent developments would not encroach on parks. Any potential impacts on parklands would be assessed during the environmental review process for each subsequent development.

11) Visual and Aesthetic

Visual conditions would change as urban development proceeds. Visual impacts associated with the Refined LPA would be positive since the vehicles would be operating on existing roadways and transit stops would be designed to be visually compatible with and where possible enhance the surrounding land uses. Visual resource impacts associated with other development would be assessed during the environmental review process for specific projects.

12) Infrastructure and Utilities

A transportation infrastructure investment in the primary transportation corridor would increase people-carrying capacity and mobility, and facilitate higher density development. Therefore, as development density increases, more demand would be placed on other infrastructure and utility systems such as water supply, sewage systems, and electric distribution. Investments in these other infrastructure systems would be necessary to accommodate increased development density.

5.13.3 Relationship Between Local Short-Term Uses Versus Long-Term Productivity

Short-term uses of the environment versus long-term productivity refers to the interplay between typically adverse, short-term, construction-phase impacts, and the benefits of the project upon completion. The relative balance between these factors must be disclosed.

A transportation infrastructure investment in the primary transportation corridor would create short-term, confined adverse impacts during construction. These impacts are discussed in more detail in Section 5.12, but include temporary, localized increases in fugitive dust emissions, noise, and traffic congestion. Utility services could be temporarily affected, and erosion from exposed areas would need to be prevented. Construction-phase impacts would be mitigated, as described in Section 5.12.

A transportation infrastructure investment would counterbalance the temporary, construction-phase impacts. The investment would promote long-term productivity, and improve the quality of life for Oahu residents and visitors. Specifically, transportation improvements would:

- Improve public transportation service on Oahu, especially within the urban core of Honolulu—Kalihi-Palama to the University of Hawaii/Waikiki, and to and from the Kapolei/Ewa region.
- Support and encourage desired land use development patterns, such as higher density development in the urban core and in Kapolei.
- Provide improved travel time for transit patrons, thereby providing an attractive alternative to the private automobile.

The long-term productive uses listed above outweigh the temporary nature of the adverse construction-phase impacts of the project, which would be mitigated. The No-Build Alternative would not achieve the long-term productivity enhancements listed above.

5.13.4 Commitments of Resources

Given the urban setting of the primary transportation corridor, irreversible commitments of resources would be those associated with the construction process, such as use of energy, construction materials, and labor. Once applied to this project, these resources would not be available for other projects. This commitment of energy, materials and labor is not a drawback since these resources would otherwise be committed to a different construction project.

5.13.5 Unresolved Issues

The extensive public involvement, coordination, and consultation that have occurred during the project has resulted in substantial input on issues and concerns relative to the proposed project. Most issues raised have been addressed in this FEIS, although some issues remain unresolved. The unresolved issues are presented below with a brief discussion regarding resolution of the issue.

3. BRT Vehicle Technology. The In-Town BRT vehicles will be hybrid diesel-electric. The City is tracking the development of an all-electric touchable embedded plate system; and its impacts are included in this FEIS. However, no decision on using such a system would be made until it is proven

revenue service-worthy and additional environmental review is conducted. If embedded plate technology is selected, the locations of traction power supply stations will need to be identified and their impacts disclosed in a separate document prior to its implementation.

4. BRT Stop Design. The design of the architectural elements of the BRT stops will be completed during the next project phase, final design. The final design of BRT stops will involve public and agency input.

5. Noise Wall Design. The design of the noise walls required at the Puuwai Momi Apartments will be completed during the next project phase, final design. The final design of the noise walls will involve public input.

6. Tree Relocations. The exact locations where affected trees will be replanted will be determined during final design.

7. Ground Water Impacts. Ground Water Impact Assessment (under Section 1424(e) of the Safe Drinking Water Act) and coordination with the EPA to address potential impacts to the Southern Oahu Basal Aquifer (SOBA) is being completed by DTS.

8. Hazardous Materials. Phase I investigations of hazardous material sites will be completed where appropriate during the next project phase, final design. As a result of that investigation, specific recommendations, which could include Phase II sampling would be prepared and executed.

9. Parking and Loading Zone Mitigation. In areas where a large concentration of on-street parking spaces will be affected, replacement parking in new off-street parking facilities will be considered during final design, but only if they meet other livable community objectives and are the result of community-based planning. Likewise, loading zone impact mitigation will be considered during final design and community-based planning will be an integral part of the design phase to address mitigation measures for loading zone impacts.

10. Section 404 permit (Nationwide). New piers will be necessary for bridge widening at the Waiawa Interchange. Retrofitting the Ala Moana Boulevard bridge over Ala Wai canal may also require pier modifications. The need for this work will not be determined until the final design phase. If necessary, a Clean Water Act Section 404 permit will be obtained from the U.S. Army Corps of Engineers (ACOE).

IOS - INITIAL OPERATING SEGMENT OF THE REFINED LPA IWILEI TO WAIKIKI

This Final Environmental Impact Statement (FEIS) for the Primary Corridor Transportation Project (PCTP) was prepared pursuant to the National Environmental Policy Act of 1969. Public comments will be accepted by the Department of Transportation Services (DTS) and the Federal Transit Administration (FTA) on this FEIS for 30 days after its Notice of Availability (NOA) is published in the Federal Register. The FTA will consider these comments in its determination on the issuance of the Record of Decision (ROD) for the Initial Operating Segment (IOS) of the Refined Locally Preferred Alternative (Refined LPA). It is planned that a separate ROD cover the remainder of the LPA at a future time.

The PCTP Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) was published in August 2000 and the LPA was selected in November 2000. A major change identified after the MIS/DEIS was published was the need for an additional line to serve the Kakaako Makai area, which by then had been selected as the site of the University of Hawaii Medical School and related facilities currently under construction. The new fourth line to serve Kakaako Makai was added to the LPA in August 2001 and the Supplemental Draft Environmental Impact Statement (SDEIS) for it was published in March 2002.

A State FEIS (under HRS Chapter 343) was accepted in November 2002, addressing all public and agency comments received on the MIS/DEIS and SDEIS. Project refinements were made incorporating comments that made the LPA more cost effective or increased its service.

This Federal EIS (under NEPA) also addresses the comments to the MIS/DEIS and SDEIS and it places special attention to the section of the LPA that will be constructed first. This is the 5.6 miles between Iwilei and Waikiki along the Kakaako Makai alignment. Impacts for the IOS are stated within each FEIS chapter as well as in this self-contained chapter which has been added for the convenience of readers. The first segment that will be constructed is between Iwilei and Waikiki, and it is called the IOS in this document. Construction will consist of concrete lanes, signal priority, and widening of sections of Ala Moana Boulevard and Kalia Road. Construction at the stops will include a 13-inch high raised platform, benches, and canopies (except in historically sensitive locations). The IOS will use hybrid diesel-electric vehicles which operate at-grade in exclusive or semi-exclusive lanes for 2.5 miles, and in mixed traffic for 3.1 miles. The IOS will provide frequent service and direct access to major activity destinations and residential neighborhoods. BRT service will operate every six minutes during peak hours and every ten minutes during off-peak hours.

The total capital cost for the IOS is estimated to be $48.1 million in 2002 dollars ($50.9 million in YOE dollars) and is already fully funded. The estimated $4-5 million cost of the ten hybrid diesel-electric BRT vehicles that are required for IOS operations is not included in the capital cost of the IOS, since all of the vehicles will be purchased with City funds as part of the fleet replacement program, with or without IOS implementation.

Construction of the IOS will take two years. Passenger service will begin in 2005. No significant adverse impacts are expected to result from implementing the IOS.

IOS.0 INTRODUCTION

The purpose of this chapter is to provide self-contained details on the first segment of the Refined LPA to be constructed, referred to in this document as the IOS. This chapter identifies potential impacts resulting from its implementation, describes proposed mitigation measures, and presents the funding plan. If deemed appropriate, FTA will issue a Record of Decision (ROD) for the IOS. The remainder of the Refined LPA will be the subject of a separate ROD at a future time.

The IOS section from Iwilei to Waikiki is a subset of the Refined LPA; it will be in place and impacts realized by 2006. As more sections of the Refined LPA are implemented, the impacts and benefits will be realized more widely. This IOS chapter is differentiated from the rest of the FEIS because it discloses those features that will be realized in the early years of BRT operation, starting in 2006; whereas the analysis of the full Refined LPA uses the future year 2025 for reviewing impacts. Said another way, the IOS describes the project as it will exist in 2006, where the Refined LPA describes it in 2025.

At each stage of implementation of the BRT system, including the IOS, the elements in place at that time will work with the rest of the transit system to improve the transportation service available to the public. Benefits will start accruing immediately with the IOS, and the level of benefit will increase as more BRT components are added through time.

IOS.1 OVERVIEW

Figure IOS.0-1 shows the elements of the IOS between Iwilei and Waikiki. Construction of the IOS will take two years with passenger service beginning in 2005.

Table IOS.0-1 summarizes the transportation and environmental impacts that are anticipated as a result of implementing the IOS. The impact analyses of the IOS reflect conditions in 2006, shortly after opening of the IOS. Additional details on these anticipated impacts and proposed mitigation are provided in Sections IOS.4 and IOS.5. No significant adverse impacts are expected to result from implementing the IOS.

IOS.1.1 Purpose and Need

The purposes and needs identified for the entire Primary Corridor Transportation Project include:

1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile.
2. Support desired development patterns.
3. Improve the transportation linkage between Kapolei, which is designated as a “new city”in Honolulu’s Urban Core.
4. Improve the transportation linkages between communities in the Primary Urban Center (PUC) to increase the attractiveness of in-town living.

Because the IOS does not include the Regional BRT providing service to and from Kapolei, the purpose and need related to Kapolei would not be accomplished by the IOS. However, it serves a new land-use pattern selected for Kakaako Makai, which has become the site for the UH Medical School and related facilities that are now under construction and will be completed in the Spring of 2005.

Among the reasons why the Iwilei-Waikiki IOS was selected as the first segment to be constructed are the following:

- It will reduce auto trips and improve the quality of the environment within some of the most cherished pedestrian precincts on the island;
- It connects many existing major destinations and supports proposed development locations for new waterfront uses and for in-town living not presently well-served by transit;
- It is relatively easy to construct, since there are less widening and utility relocations required compared to the other In-Town BRT branches;

TABLE IOS.0-1
SUMMARY OF IOS IMPACT ASSESSMENTS AND MITIGATION MEASURES

	IOS IMPACTS	MITIGATION
TRANSPORTATION FACTORS		
Transit	Because the IOS will serve the same function as the existing Route 8, Route 8 will be replaced by the IOS. The segments of Routes 55, 56, and 57 between Downtown and Ala Moana Center are also redundant and these routes will terminate in Downtown, allowing quicker turnaround of these buses. The IOS is forecast to result in approximately 4,500 new transit riders per day in 2006.	None necessary.
Urban Intersections	Very little change in intersection operations are proposed, so there will be minimal changes in delays at intersections and in the LOS at any of the intersections analyzed along the IOS route.	None necessary.
Parking	The IOS will displace unrestricted parking spaces on Queen Street (5 marked spaces), Saratoga Road (5 marked spaces), and Kapahulu Avenue (12 marked spaces).	There are large existing off-street parking facilities with reserve capacity near each location where on-street parking will be removed. Therefore, parking displaced by the IOS will not be replaced.
Loading Zones	Preliminary engineering for the IOS has taken into consideration the need to avoid impacts to as many passenger and freight loading zones as possible. The IOS will not result in any loading zone impacts.	None necessary.
Bicycling	Due to the provision of exclusive and semi-exclusive BRT lanes, the IOS will improve bicycle tranportation on Auahi Street, portions of Ala Moana Boulevard, Kalia Road, Saratoga Road in the vicinity of Fort DeRussy, and a segment of Kalakaua Avenue between Saratoga Road and Uluniu Street.	None necessary.
Pedestrians	All transit stops will be in conformance with the Americans with Disabilities Act (ADA). The IOS will contribute to an improved urban walking experience through the use of environmentally friendly transit vehicles that produce less noise and air pollution.	None necessary.

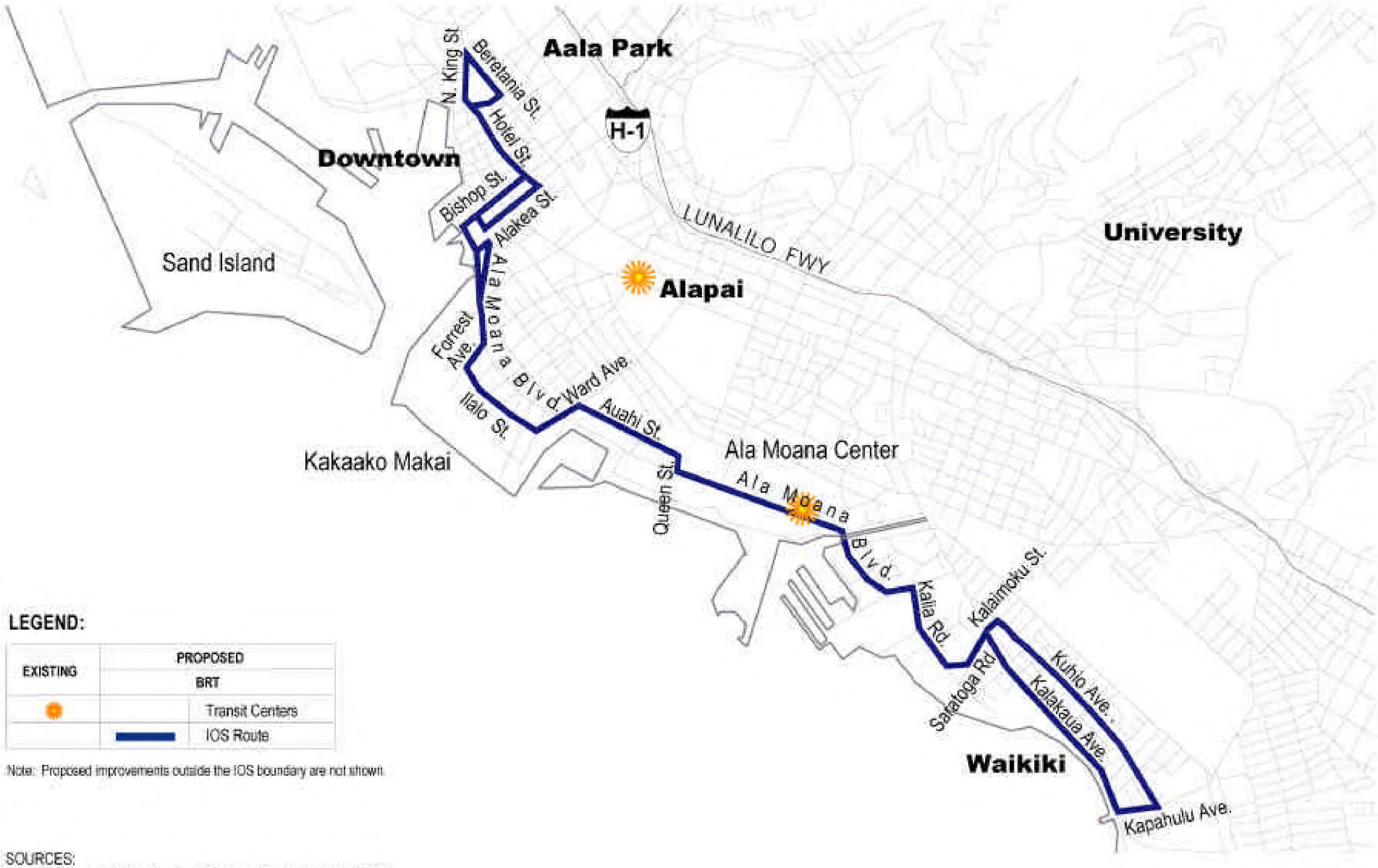
TABLE IOS.0-1 (CONT.)
SUMMARY OF IOS IMPACT ASSESSMENTS AND MITIGATION MEASURES

	IOS IMPACTS	MITIGATION
ENVIRONMENTAL FACTORS		
Land Use, Development, and Plan Consistency	Consistent with HCDA Kakaako Makai Plan. Serves UH Medical School and related facilities currently under construction.	None necessary.
Business and Residential Displacements	Displacement of some landscaped areas at Fort DeRussy. No buildings or structures will be affected.	Landscaping removed at Fort DeRussy will be replaced with similar landscaping nearby along Kalia Road.
Neighborhoods and Environmental Justice	The IOS will not cause disproportionately high and adverse health or environmental effects on any minority and low-income population and will provide many positive transit benefits.	None necessary.
Visual Character	IOS transit stops located in areas with high visual or aesthetic value may cause adverse visual impacts. Landscaping altered by the project may cause changes to the visual environment at certain locations.	IOS transit stops located in areas with high visual or aesthetic value will be designed to be appropriate in each setting and where possible will enhance the aesthetics of the area. Any existing landscaping affected by the IOS will be mitigated through provision of new street plantings and tree replacements.
Air Quality	No impact.	None necessary.
Noise/Vibration	No impact.	None necessary.
Ecosystems – Faunal Species	White terns (State of Hawaii endangered species on Oahu) occur in the IOS corridor, but no adverse impacts are expected.	Even though no adverse impacts are expected, a survey of the IOS corridor will be conducted for white terns and their eggs prior to completing final design. If sensitive trees or areas are identified, they will be monitored immediately prior to and/or during construction. Relocation and/or trimming of trees will be coordinated with the City's Department of Parks and Recreation.
Ecosystems – Botanical Resources	Construction of the IOS will displace 47 trees, of which nine are "notable" trees on Kalia Road. Some tree trimming will be required. No designated exceptional trees will be affected.	A tree preservation plan will be prepared. Affected trees will be relocated near their original locations or replaced in accordance with the tree preservation program.

TABLE IOS.0-1 (CONT.)
SUMMARY OF IOS IMPACT ASSESSMENTS AND MITIGATION MEASURES

	IOS IMPACTS	MITIGATION
Water	No impact.	None necessary.
Energy Consumption	No adverse impact.	None necessary.
Historic and Archaeological Resources	Development of the Alakea and Saratoga Transit Stops may "adversely affect" lava rock curbs, which are considered historic. Development of the IOS is not expected to uncover buried archaeological resources or native-Hawaiian ancestral burial sites.	In accordance with the project's Memorandum of Agreement, DTS will work with the State Historic Preservation Division (SHPD) and other interested parties to explore using the lava rock curb material in the design of the two IOS transit stops affected. If burials or archaeological artifacts are uncovered during construction, work will stop and the SHPD will be notified immediately for appropriate action.
Parklands	The IOS will generally improve transit access to parks in the study area. Transit stops adjacent to parks could adversely affect their visual and aesthetic characteristics, even though no park property is used.	Transit stops near parks will require special design treatment.
Indirect and Cumulative	Substantial land use changes are not anticipated. The IOS may stimulate planned transit-oriented commercial and residential development. The IOS will be an important addition to the transportation infrastructure, supporting planned developments in Kakaako and Waikiki. The IOS and other planned developments will enhance short- and long-term employment.	None necessary.
Construction Impacts	Construction impacts will be temporary. Construction activities on streets will likely result in temporary traffic delays, detours, and bus stop relocation. Construction equipment and vehicles delayed by construction activities will increase emissions of fugitive dust and automotive air pollutants, such as carbon monoxide. Construction equipment also emits relatively high noise emissions, which could disturb nearby residences, schools, office buildings, and other noise-sensitive uses. Impacts to surface and groundwater resources are not expected due to best management practices. Utility services may be disrupted causing inconveniences to affected residences and businesses.	The Construction Management Program for the IOS will address all standard construction-period traffic and transportation issues. In addition, contractors will be required to comply with all applicable air quality, noise, and water quality laws. Substantial planning, including resident and business notifications, will be conducted to minimize inconveniences should interruptions in utility service be required.

Source: Parsons Brinckerhoff, Inc., April 2003.



Initial Operating Segment (IOS)

Figure IOS.0-1

- Unlike the Regional BRT which requires phasing in conjunction with other State of Hawaii Department of Transportation (SDOT) planned H-1 improvements that are not ready to proceed yet, the Iwilei-Waikiki IOS can be implemented immediately;
- There is community and business support along the route;
- It is viable as a stand-alone BRT route, as well as a building block for additional branches; and
- It is cost-effective.

IOS 1.1.1 Local Decision Making Process

In May 2002, the Honolulu City Council selected the Iwilei-Waikiki segment as the Initial Operating Segment. Their decision followed a widely publicized series of open public meetings that were well attended and included extensive testimony and questions. The Council appropriated funding for the IOS in the Fiscal Year (FY) 2003 Capital Improvement Program (CIP). The selection of the Iwilei-Waikiki segment as the IOS was again confirmed in June 2002, after additional open public meetings, when the City Council amended the Primary Urban Center Development Plan Public Facilities Map to incorporate the Iwilei-Waikiki segment improvements.

IOS 1.2 Differences Between IOS and 2025 Iwilei-Waikiki Branch

One of the advantages of BRT compared to a rail system is its flexibility for staging. Not only can segments be built sequentially, but features of each segment can be phased over time as well. For example, there are some sections along the IOS where priority BRT lanes will be needed and can be justified at the outset, and other sections where priority lanes are more appropriately deferred until ridership builds to the level sufficient to warrant the lane conversion. The IOS is therefore not identical to the Iwilei-Waikiki Branch that will be in place ultimately, and which is described in Chapter 2 as part of the 2025 system.

The primary differences between the IOS and the 2025 Iwilei-Waikiki Branch are:

- Until the Iwilei Transit Center opens in 2007, the Ewa terminus for the IOS will be Aala Park. Aala Park is a major bus transfer point today. Ewa bound BRT vehicles will continue from Hotel Street onto N. King Street and make a clockwise loop around Aala Park to return Koko Head bound on Hotel Street. The IOS will use existing bus stops on N. King Street and on Beretania Street.
- The elements connecting Dillingham Boulevard and Hotel Street will not be part of the IOS.
- Although the BRT will stop along Hotel Street, the Chinatown and Union Mall Transit Stop improvements will not be part of the IOS.
- Operations will be in mixed-flow traffic on Ala Moana Boulevard between Queen Street and the Ala Wai Canal. The ultimate improvements on this segment are not part of the IOS. Future 2025 BRT operations will be in exclusive and semi-exclusive lanes on Ala Moana Boulevard.
- Operations will be in mixed-flow traffic on Kuhio Avenue in Waikiki. In the future, there will be a semi-exclusive Ewa-bound lane along this section.

IOS.2 DESCRIPTION OF INITIAL OPERATING SEGMENT (IOS) FROM IWILEI TO WAIKIKI

This section contains a detailed description of the Initial Operating Segment (IOS) from Iwilei to Waikiki.

IOS.2.1 Initial Operating Segment

As shown in Figure IOS.0-1, the IOS will be a 5.6-mile high-capacity transit route providing dependable and frequent service with direct access to major activity destinations and residential neighborhoods along its alignment between Iwilei and Waikiki. BRT service will operate every six minutes during peak periods and every ten minutes during off-peak periods.

The IOS alignment will help to provide transportation connections between emerging redevelopment areas such as Kakaako Makai, located between Downtown and Ala Moana, and other existing major activity locations along the IOS alignment including Victoria Ward (Ward Warehouse and Ward Center). The first and second buildings in the new UH Medical School complex in Kakaako Makai are scheduled for completion in the Fall of 2004 and the Fall of 2005, respectively.

The IOS will have travel time between its end points in Downtown (Aala Park stop on Beretania Street) and Waikiki (Kapahulu Avenue stop) via the Ala Moana Boulevard corridor of between 28 and 33 minutes, including average wait and walk times. Of this, between 25 and 30 minutes are in-vehicle time. This compares to travel time between these same points using either the existing Route 19, Route 20, or Route 42 local buses of approximately 38 to 48 minutes.

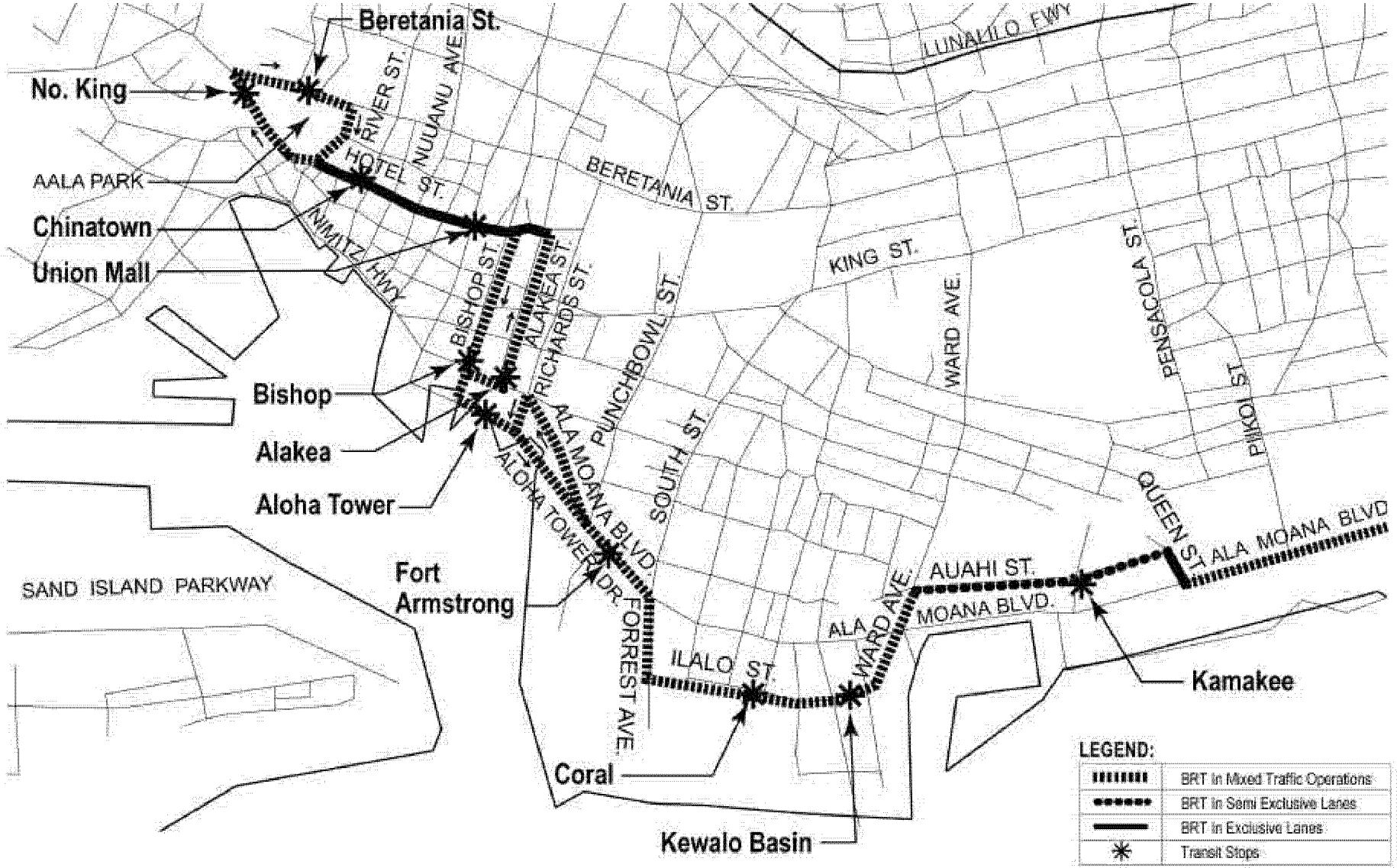
The IOS will provide transportation connections between emerging redevelopment areas such as Kakaako Makai, located between Downtown and Ala Moana, and other major activity locations along the IOS alignment. The IOS will provide new direct service to Waikiki for the Kakaako Makai and Victoria Ward areas. Currently, transit riders need to walk from the Kakaako Makai area to Ala Moana Boulevard to catch a local bus to Waikiki area, and transit riders need to transfer from a Route 6 to a Route 8 bus to reach Waikiki from the Victoria Ward area. From the UH Medical School in Kakaako Makai, the IOS will provide an eight (five in-vehicle) minute travel time to the Union Mall stop in Downtown, while it takes 16 (9 in-vehicle) minutes today, including walk time and average wait time for TheBus. Similarly, travel time using the IOS between the the Waikiki Trade Center (Kuhio/Seaside stop) and Harbor Square (Alakea Street stop) will be 21 (18 in-vehicle) minutes versus 33 (30 in-vehicle) minutes using today's transit service. Travel time between Ward Centre (Kamakee Street stop) and Waikiki Beach is 33 (27 in-vehicle) minutes by today's transit service. This travel time will be shortened by 15 minutes to 18 (15 in-vehicle) minutes with the IOS, including average wait and walk times.

Additional refinements have been incorporated into the Refined LPA in response to comments received on the SDEIS during the public comment period. The only refinement pertinent to the IOS is the shifting of a short one block section of the Kakaako Makai branch alignment to Forrest Avenue rather than Channel Street, as shown in the Kakaako Makai Plan. This refinement has no significant effect as far as the impacts of the proposed action and it was made at the request of the Hawaii Community Development Authority (HCDA) to be consistent with their most recently adopted plan.

Convenient connections between the IOS and circulator, local, and express buses will occur at Aala Park, along Hotel Street in Downtown, at Ala Moana Center, and along Kuhio Avenue in Waikiki.

Along a portion of the IOS's length, BRT vehicles will operate at-grade in exclusive or semi-exclusive transit lanes. In other locations, the IOS will operate in mixed traffic. Figures IOS.2-1A and IOS.2-1B depict the locations of the IOS exclusive and semi-exclusive lanes.

The BRT stops will provide more amenities than the typical bus stop with 13-inch high raised platforms that provide level boarding to low-floor vehicles and covered waiting areas with seating, lighting and landscaping.



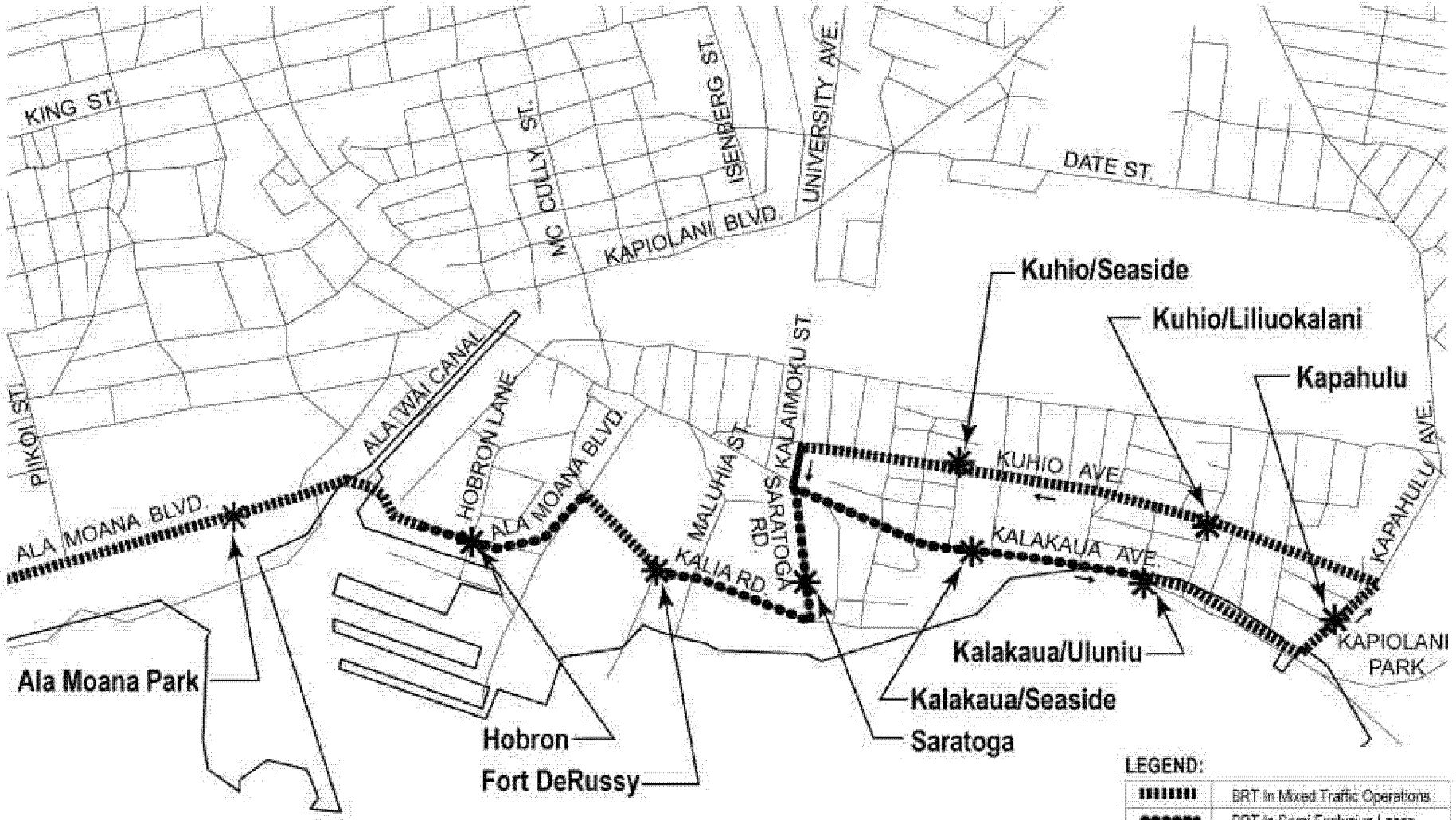
SOURCE:
Parsons Brinckerhoff, May 2002.

Scale: 0 .125 .25 mi

IOS Priority Lanes And Transit Stops

Figure IOS.2-1A

AR00015248



SOURCE:
Parsons Brinckerhoff, May 2002.

Scale: 0 .125 .25 mi

IOS Priority Lanes And Transit Stops

Figure IOS 2-1B

Some variations will occur due to space limitations. A rendering of the proposed Hobron Stop in Waikiki is provided in Figure IOS.2-2A, as an example; a drawing of a typical stop is shown in Figure IOS 2-2B. Some of the stops will also be provided with signs indicating the waiting time until the next vehicle arrives. The entire IOS system will be designed in compliance with the Americans with Disabilities Act (ADA).

IOS.2.1.1 IOS Routing

Travelling in the Koko Head direction, the IOS will start at Aala Park and proceed to the Hotel Street Transit Mall via Beretania and River Streets. From the Hotel Street Transit Mall, it will continue in the makai direction on Bishop Street to Aloha Tower Drive. From Aloha Tower Drive, the IOS will continue in the Koko Head direction on Ala Moana Boulevard and then turn in the makai direction onto Forrest Avenue. It will then turn in the Koko Head direction onto Ilalo Street which becomes Ward Avenue on the mauka side of Ala Moana Boulevard.

From Ward Avenue, the alignment turns Koko Head onto Auahi Street, where the BRT will be in extra-wide semi-exclusive curb lanes that permit the on-street parking to remain. At the Koko Head end of Auahi Street, the route will turn onto the short Queen Street segment to rejoin Ala Moana Boulevard and head Koko Head towards Waikiki. Along Ala Moana Boulevard, between Queen Street and the Ala Wai Canal, the BRT will operate in the curb lane in mixed traffic. Between the Ala Wai Canal and Kalia Road, Ala Moana Boulevard will be reconfigured to allow an additional lane in each direction. These lanes, formed by reducing the median and narrowing the travel lanes, will be semi-exclusive curb lanes shared with local buses, private buses and right-turning vehicles.

From Ala Moana Boulevard, the route will turn makai on Kalia Road and enter Fort DeRussy. The route will continue along Kalia Road to Saratoga Road, with Kalia Road being widened by one lane in each direction between the Hale Koa Hotel and Saratoga Road. The alignment will turn mauka on Saratoga Road. The BRT will be in semi-exclusive lanes on Kalia Road from Maluhia Street to Saratoga Road, and on Saratoga Road from Kalia Road to Kalakaua Avenue. At the intersection of Saratoga Road and Kalakaua Avenue, the route will split into a one-way couplet on Kalakaua and Kuhio Avenues. The Koko Head-bound transit lane will be semi-exclusive, using the makai curb lane of Kalakaua Avenue until after the stop at Uluniu Street where it will transition mauka in mixed traffic to turn onto Kapahulu Avenue. The Kapahulu transit stop will be on the Koko Head side of Kapahulu Avenue and will not affect Kapiolani Park. The transit stop improvements at this site will be within the 18-foot-wide public sidewalk area. The return loop will turn Ewa onto Kuhio Avenue, and the Ewa-bound buses will operate in mixed traffic using the mauka curb lane of Kuhio Avenue. The alignment will turn onto the Ewa side of Kalaimoku Street to return to Saratoga Road. Within Waikiki, the BRT lanes will mostly be curbside semi-exclusive lanes shared with local buses and private transit vehicles. The exceptions will be the Kalaimoku contra-flow lane which will be an exclusive BRT lane; and Kapahulu and Kuhio Avenues which will be mixed-flow operations.

In the Ewa direction, the IOS will travel Ewa from Kalaimoku Street in Waikiki following the reverse routing described for the Koko Head-bound direction, except that, at the intersection of Bishop Street/Nimitz Highway, the branch will turn Koko Head onto Nimitz Highway, then mauka onto Alakea Street, left on Hotel Street and then travel along Hotel Street to the North King Transit Stop at Aala Park.

Existing attractions that will be served by the IOS include Chinatown, the Central Business District, Aloha Tower Marketplace, Hawaii Maritime Museum, Piers 10 and 11 cruise ship terminal, Restaurant Row, Kakaako Waterfront Park, Children's Discovery Center, Ward Centre and Entertainment Complex, Ala Moana Center, Ala Moana Beach Park, Fort DeRussy, Kapiolani Park, and major hotels, high-rise residences, offices, and commercial/recreation destinations in Waikiki. Future land uses that would be served include future phases of Aloha Tower Marketplace, a new cruise ship terminal at Pier 2, the proposed University of Hawaii School of Medicine and related bio-medical research facilities, the proposed Hawaii Science and Technology

View of Discovery Bay at Ala Moana Blvd. and Hobron Lane.

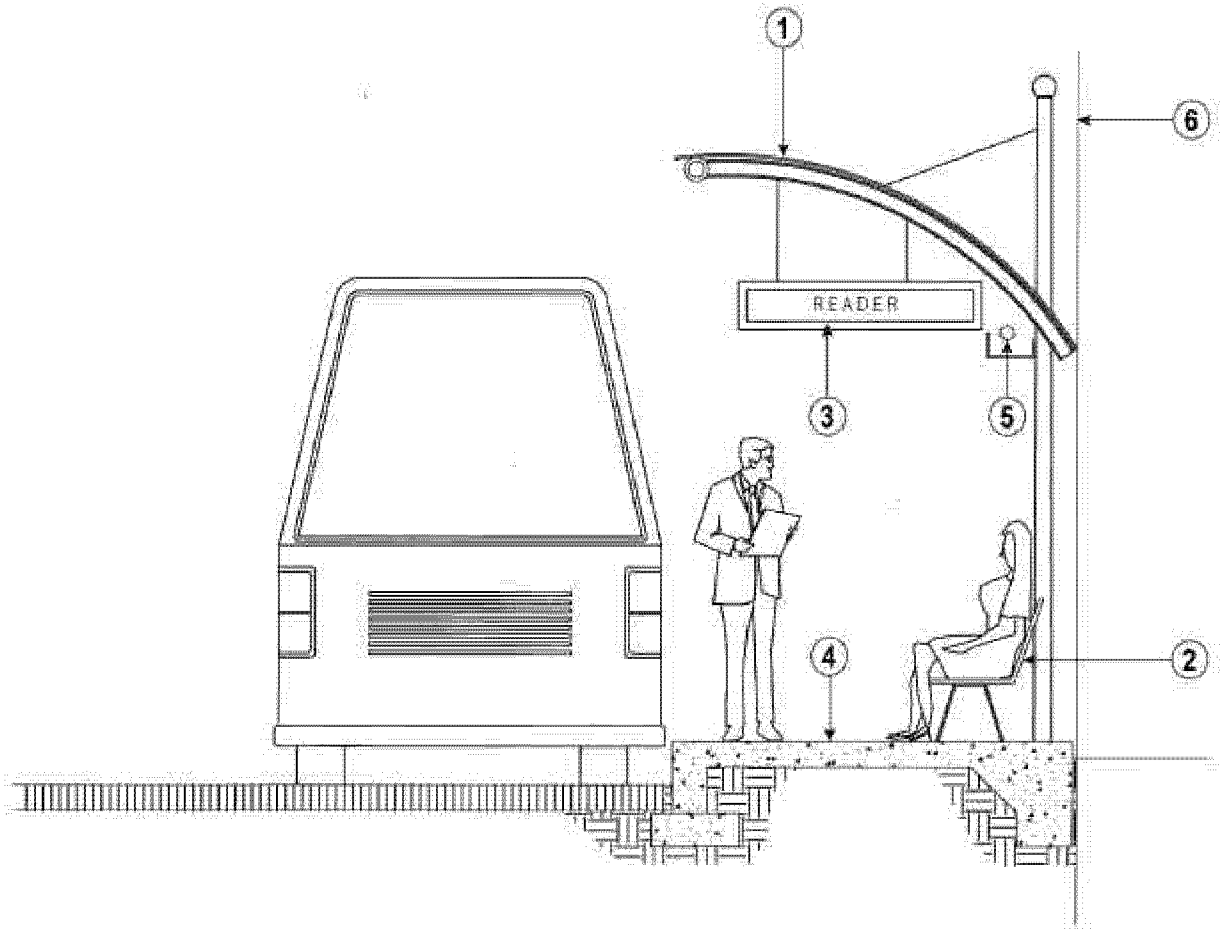
A typical stop, such as this one at Discovery Bay on Hobron Lane, will have a canopy designed to allow visual connection, benches, trash receptacle, information board, and a 13-inch platform for level boarding.

BRT canopies fronting the Discovery Bay retail facade would be located to work with entrances and allow visual connections.

SOURCE:
Urban Works, 2001.

Renderings of Hobron Lane Stops

Figure IOS.2-2A



NOTES:

1. Canopies To Be Located Intermittently Over Lenght Of Platform
2. Seating (Typical)
3. Transit Stop Locator Sign (2-Sided)
4. 13"-High Raised Platform
5. Light Fixtures
6. Right-Of-Way or Edge of Building

A typical stop will have a canopy designed to allow visual connection, benches, trash receptacle, information board, and a 13-inch platform for level boarding.

SOURCE:
SSFM International, Inc. 2002.

NOT TO SCALE

Typical Section of BRT Stops

Figure IOS.2-2B

Center, commercial plus retail development at Kewalo Basin, and the Waikikian and Outrigger redevelopment projects in Waikiki.

IOS.2.1.2 Transit Stops

The following describes the 20 locations where transit stops will be located along the IOS (see Figures IOS.2-1A and IOS.2-1B). The stops will provide direct access and encourage pedestrian-friendly, transit-oriented development and infill near stops in areas designated and zoned for redevelopment:

- N. King Street and Beretania Street (Aala Park): The first Koko Head-bound stop will be on Beretania Street next to Aala Park. The Ewa-bound terminus will be on N. King Street on the opposite side of Aala Park. Since these will be temporary stops until the Iwilei Transit Center is constructed, the BRT vehicles will use the existing bus stops at this location. There will be no construction at these existing bus stops for the IOS.
- Chinatown: The BRT stops will be the existing curbside bus stops on Hotel Street at Kekaulike Street, and will serve Chinatown. There will be no construction at these existing bus stops for the IOS.
- Union Mall: This pair of transit stops will be the existing bus stops located between Fort Street and Union Malls and will serve the Central Business District. There will be no construction at these existing bus stops for the IOS.
- Bishop: This Koko Head-bound transit stop will be located adjacent to the Topa Financial Center (previously known as Amfac Center) on Bishop Street just makai of Queen Street.
- Alakea: This Ewa-bound transit stop will be located adjacent to the Harbor Square tower on Alakea Street.
- Aloha Tower: This pair of transit stops will be located on Aloha Tower Drive just to the Koko Head side of Bishop Street by the Hawaii Maritime Museum.
- Fort Armstrong: This pair of transit stops will be located on Ala Moana Boulevard near the U.S. Immigration Station/Department of Health Building, Restaurant Row, and the site of a future passenger ship terminal at Pier 2.
- Coral: This pair of transit stops will be located along Ilalo Street between Coral and Cooke Streets in the center of the Kakaako Community Development District Makai Area.
- Kewalo Basin: This pair of transit stops will be located along Ilalo Street adjacent to Ahui Street.
- Kamakee: This pair of transit stops will be located on Auahi Street and will provide access to the Victoria Ward developments and Kewalo Basin.
- Ala Moana Park: This pair of transit stops will use the existing bus stops located next to Ala Moana Beach Park and Ala Moana Center. There will be no construction at these existing bus stops for the IOS.
- Hobron: This pair of transit stops will be located on Ala Moana Boulevard at Hobron Lane, serving the nearby residential area and hotels.
- Fort DeRussy: This pair of transit stops will be located on Kalia Road adjacent to Fort DeRussy and the Hilton Hawaiian Village and Hale Koa Hotels.
- Saratoga: This pair of transit stops will be located near the Waikiki Post Office at the Koko Head end of Fort DeRussy, and hotels on Saratoga and Kalia Roads.
- Kalakaua/Seaside: This Koko Head-bound transit stop will be adjacent to the Royal Hawaiian Shopping Center, and surrounding hotel and retail areas.
- Kalakaua/Uluniu: This Koko Head-bound transit stop will be located near Kuhio Beach across from the Hyatt Regency Hotel.
- Kapahulu: This on-street transit stop will be located on the Koko Head side of the intersection of Lemon Road and Kapahulu Avenue. The stop will serve the Honolulu Zoo, Kapiolani Regional Park,

and nearby hotels and residences. The stop will be located within the public right-of-way, not on park land.

- Kuhio/Liliuokalani: This Ewa-bound transit stop will be located by the Radisson Waikiki Prince Kuhio Hotel.
- Kuhio/Seaside: This Ewa-bound transit stop will be located across from the Waikiki Trade Center.

The transit stops will provide more amenities than the typical bus stop. The most obvious will be 13-inch high raised platforms that provide level boarding to low-floor vehicles. Typical amenities that will be provided include seating, lighting, landscaping, and canopies, which will be attractive and non-obtrusive. The architectural design of transit stops in sensitive areas, such as the Kalakaua/Uluniu and Kapahulu Transit Stops, will involve public and agency consultation. All of the transit stops will be designed in compliance with the Americans with Disabilities Act.

IOS.2.1.3 Priority Lanes

To give transit the priority necessary to make it an attractive alternative to the private automobile, some lanes along the IOS alignment will need to be converted from general-purpose lanes to semi-exclusive transit only lanes. This will result in an increase in the person-carrying capacity of these streets but will result in a reduced number of lanes for general-purpose traffic. Table IOS.2-1 summarizes the proposed distribution of lanes with the IOS. The changes from the current distribution of lanes are:

- Conversion of the curb lanes on Auahi Street, between Ward Avenue and Queen Street, to semi-exclusive lanes. These will be extra-wide lanes (19 to 20 feet) to permit on-street parking to remain;
- To permit a semi-exclusive lane in each direction, a new lane will be added in each direction on Ala Moana Boulevard; between the Ala Wai Canal and Kalia Road in the Koko Head bound direction, and between Kalia Road and Hobron Lane in the Ewa bound direction. The lanes will be added without changing the sidewalks by reducing a portion of the median and narrowing the width of the travel lanes;
- Addition of a lane in each direction on Kalia Road, between Maluhia Street and Saratoga Road, for semi-exclusive use by all buses and right-turning vehicles;
- Restriping of Saratoga Road to permit one semi-exclusive and one general purpose travel lane in each direction. This will require the conversion of one mauka-bound general purpose lane and removal of on-street parking on the Ewa-side;
- Conversion of the makai curb lane on Kalakaua Avenue to semi-exclusive use, between Saratoga Road and Uluniu Avenue;
- Widening of Kuhio Avenue sidewalks, a separate City project, which will reconfigure a Koko Head bound travel lane. The sidewalk widening will be implemented concurrently with the IOS. The BRT and other buses will operate in mixed-traffic on Kuhio Avenue during the initial phase of operations; and,
- Addition of a contra-flow lane by restriping Kalaimoku Street to allow BRT buses to travel makai-bound.

IOS.2.1.4 Construction Elements

Construction is scheduled to commence before the end of 2003, with completion projected in 2005. The major construction elements of each roadway segment are summarized in Table IOS.2-2. The improvements include construction of transit stops, concrete bus lanes, pavement rehabilitation, transit priority traffic signal improvements, roadway widening, landscaping, utility relocations, modifications to wheelchair ramps, sidewalks, and driveways, signage, striping, roadway lighting, and other work related to signal prioritization.

TABLE IOS.2-1
PROPOSED DISTRIBUTION OF LANES BETWEEN IWILEI AND WAIKIKI

	NUMBER OF LANES				
	EXISTING		PROPOSED		
Location	General Purpose	Exclusive Transit	General Purpose	Semi-Exclusive Transit	Exclusive Transit
Beretania Street					
N. King St. – River St.	6	0	6	0	0
River Street					
Beretania St. – Hotel St.	2	0	2	0	0
N. King Street					
Beretania St. – Iwilei Rd.	6	0	6	0	0
Iwilei Rd. - River St.	4+1 turning	1	4+1 turning	0	1
Hotel Street					
N. King St. - Alakea St.	0	2	0	0	2
Alakea St.					
S. Hotel St. – S. King St.	6	0	6	0	0
S. King St. – Queen St.	4	0	4	0	0
Queen St. – Nimitz Highway.	4+1 turning	0	4+1	0	0
Auahi St.					
Ward Ave. – Queen St.	4	0	2	2	0
Queen St.					
Auahi St. - Ala Moana Blvd.	4+1 turning	0	3+1 turning	1	0
Ala Moana Blvd.					
Queen St. - Ala Wai Canal	6+1 turning	0	6+1 turning	0	0
Ala Wai Canal – Hobron Lane	6+1 turning	0	6+1 turning	1	0
Hobron Lane – Kalia Road	6+1 turning	0	6+1 turning	2	0
Kalia Rd.					
Ala Moana Blvd. – Maluhia St.	5	0	5	0	0
Maluhia St. - Saratoga Rd.	2	0	2	2	0
Saratoga Rd.					
Kalia Rd. - Kalakaua Ave.	3	0	2	2	0
Kalakaua Ave.					
Saratoga Rd. - Kaiulani Ave.	4	0	3	1	0
Kaiulani Ave. – Uluniu Ave.	3	0	2	1	0
Uluniu Ave. – Kapahulu Ave.	3	0	3	0	0
Kapahulu Ave.					
Kalakaua Ave. - Kuhio Ave.	4	0	4	0	0
Kuhio Ave.					
Kapahulu Ave. - Kalaimoku St.	4+1 turning	0	3+1 turning	0	0
Kalaimoku St.					
Kuhio Ave. - Kalakaua Ave.	2	0	2	0	1
Bishop St.					
S. Hotel St. – Queen St.	5	0	5	0	0
Queen St. – Nimitz Highway	4	0	4	0	0
Nimitz Highway – Aloha Tower Dr.	4	0	4	0	0

TABLE IOS.2-1 (CONT.)
PROPOSED DISTRIBUTION OF LANES BETWEEN IWILEI AND WAIKIKI

	NUMBER OF LANES				
	EXISTING		PROPOSED		
Location	General Purpose	Exclusive Transit	General Purpose	Semi-Exclusive Transit	Exclusive Transit
Aloha Tower Dr.					
Bishop St. – Connector St.	3	0	3	0	0
Connector St. – Ala Moana Blvd.	1	0	1	0	0
Ala Moana Blvd.					
Connector St. – Forrest Ave.	6	0	6	0	0
Forrest Ave.					
Ala Moana Blvd. – Ilalo St.	4	0	4	0	0
Ilalo St.					
Forrest Ave. – Ahui St.	2	0	2	0	0
Ward Ave.					
Ahui St. – Auahi St.	5	0	5	0	0
Ala Moana Blvd					
Forrest Ave. – Connector St.	6	0	6	0	0
Connector St. (Richard St. Extension)					
Ala Moana Blvd. – Aloha Tower Dr.	2	0	2	0	0
Nimitz Highway					
Bishop St. – Alakea St.	6+2 turning	0	6+2 turning	0	0

Source: Parsons Brinckerhoff, March 2003.

TABLE IOS.2-2
SUMMARY OF MAJOR ITEMS OF WORK

Roadway Segment	Major Items of Work
Hotel Street	Curb/sidewalk modifications at Bishop St. and Alakea St. intersections.
Bishop Street	Transit stop construction with a 13-inch high raised platform.
Alakea Street	Transit stop construction with a 13-inch high raised platform.
Aloha Tower Drive	Transit stop construction with a 13-inch high raised platform and pavement rehabilitation.
Richards Street Extension	Pavement rehabilitation.
Nimitz Highway/Ala Moana Blvd.	Transit stop construction with 13-inch high raised platforms and pavement rehabilitation
Ilalo Street	Transit stop construction with 13-inch high raised platforms.
Auahi Street	Transit stop construction with 13-inch high raised platforms, concrete pavement construction, and pavement rehabilitation.
Queen Street	Concrete pavement construction.

TABLE IOS.2-2 (CONT.)
SUMMARY OF MAJOR ITEMS OF WORK

Ala Moana Boulevard (Ala Wai Canal to Kalia Road)	Roadway widening to accommodate two semi-exclusive bus lanes, transit stop construction with 13-inch high raised platforms, concrete pavement construction, pavement rehabilitation, utility relocations, landscaping, and roadway lighting improvements.
Kalia Road	Roadway widening to accommodate two semi-exclusive bus lanes, transit stop construction with 13-inch high raised platforms, concrete pavement construction, pavement rehabilitation, landscaping, and roadway lighting improvements.
Saratoga Road	Transit stop construction with 13-inch high raised platforms, concrete pavement construction, and pavement rehabilitation.
Kalakaua Avenue	Concrete pavement and transit stop construction with 13-inch high raised platforms.
Kapahulu Avenue	Transit stop construction with a 13-inch high raised platform.
Kuhio Avenue	Transit stop construction with 13-inch high raised platforms, concrete pavement construction between Seaside Avenue and Kanekapolei Street, concrete pavement rehabilitation, roadway lighting improvements, and traffic signal modifications.
Kalaimoku Street	Concrete pavement construction.

Source: Parsons Brinckerhoff, June 2003.

IOS.2.1.5 Transit Technology for IOS

The City plans to use hybrid diesel-electric BRT buses, replacing the existing diesel buses, to operate on the IOS because this technology best harmonizes with the higher densities and pedestrian orientation of Honolulu's Urban Core. A key objective is to enhance the quality of urban life by minimizing adverse noise and air pollution impacts from buses. The City intends to order new low floor hybrid diesel-electric buses prior to the start of IOS operations in 2005.

An advantage of the hybrid diesel-electric technology is that regardless of the speed of the vehicle, its internal combustion engine can be operated at a constant revolutions per minute for optimum efficiency. Running the engine at optimum efficiency maximizes fuel economy while minimizing air and noise emissions. The on-board batteries can also be used to move the bus if there is a problem with the engine or alternator.

IOS.2.1.6 Maintenance Facility

Storage and maintenance of the ten hybrid diesel-electric buses needed for the IOS will occur at the existing Kalihi-Palama Bus Maintenance Facility on Middle Street. Since the total size of the City's bus fleet will not change with implementation of the IOS, and will remain at 525 buses, no modification of the existing service bays will be necessary to accommodate the ten IOS buses, nor will the facility need to be expanded.

Later as the fleet grows with implementation of the rest of the In-Town BRT, expansion of the Kalihi-Palama facility will be needed. This expansion will be coordinated with the development of the Middle Street Transit Center. The expansion site will be adjacent to and makai of the existing Kalihi-Palama Bus Maintenance Facility.

IOS.2.2 How IOS Connects to Balance of the Transit Network

Local bus routes within the Urban Core will be modified to minimize overlap with the IOS, and some routes will be reconfigured to provide feeder service to the IOS.

The IOS traverses a route that is similar to Route 8 Waikiki-Ala Moana Center but will provide limited stop express service. Therefore, Route 8 service will be replaced by the IOS when the IOS is implemented.

Between Downtown and Ala Moana, Routes 55, 56, and 57 will overlap the IOS route. These routes currently provide service between windward Oahu and Downtown and Ala Moana Center. Turning Routes 55, 56, and 57 around in Downtown instead of at Ala Moana Center will remove this overlap. Local bus service along Ala Moana Boulevard will continue to be provided by Routes 19, 20, and 42. These modifications will enable the IOS BRT service to effectively interface with major local and express bus routes in Downtown and will enable it to provide BRT service within the Ala Moana Boulevard corridor where it does not exist today.

The existing CityExpress! Route A from Waipahu to UH-Manoa via Pearlridge will continue to provide fast, frequent cross-town service through Downtown Honolulu. City Express! Route B will continue to offer limited-stop service between Middle Street and Waikiki, although its routing will be slightly modified so that it does not overlap much with the IOS. Route B service frequency will be every 15 minutes, 7 days a week. The existing CountryExpress! Route C that provides fast service from Makaha to Downtown Honolulu and Ala Moana Center will also continue, as it is today.

IOS.2.3 Capital Costs

This section presents estimates of capital costs for the IOS. The costs are for the improvements to be in place in 2006 and are expressed in 2002 dollars.

IOS.2.3.1 Cost Estimation Methodology

During this phase of the project, cost estimates are referred to as preliminary estimates, since they are based on preliminary design rather than detailed final design. The level of design detail available for the project affects the accuracy of the cost estimates. Unit costs were derived from historical data from comparable transit systems, such as the BRT system in Orlando, Florida, as well as various private and public infrastructure projects recently bid within the State of Hawaii. Costs are based on in-place costs, including labor, construction, permanent equipment, and permanent materials. To account for differences between Hawaii and mainland costs, a Hawaii adjustment factor was applied to items such as the price of materials and the cost of labor.

Basic assumptions used in developing the capital cost data are:

- Estimates were prepared using 2002 dollars;
- No premium time on labor costs was included;
- Normal productivity rates as historically experienced were utilized; and
- Adequate experienced craft labor is assumed to be available.

Typical facility costs are based on the preliminary engineering developed for each work item. Costs are developed by combining the costs of components applicable to a typical cross-section into one unit cost. These parametric unit costs have detailed unit price development backup to substantiate the parametric unit costs. Once the facility costs have been determined, they are subject to add-on factors. Add-on factors cover engineering, program administration, insurance, and contingencies. They are referred to as add-on factors because they are added to the unit costs.

Capital costs were developed utilizing a "bottom up" estimating approach and checked for reasonableness using per mile cost data from other similar projects. With a "bottom up" approach, the cost of each major category of work is determined by totaling the cost of their component parts. Based on the preliminary engineering, the quantities of the major work elements are defined. Unit prices for each major work element are developed and combined with the estimated quantities to determine the cost of each major category of work, such as transit stops, transit platforms, roadway pavement, and so forth.

An eight percent allowance for add-on costs has been provided. Add-ons include engineering design, construction inspection, and start-up. A ten percent contingency is included in the capital cost estimate to account for unforeseen items, quantity fluctuations and variances in unit costs (Note: a 25 percent contingency was used in the MIS/DEIS; this was reduced in the FEIS due to preliminary engineering). The cost of the State of Hawaii general excise tax is included as a percentage (4.166) of the total capital cost of all categories.

IOS.2.3.2 Capital Costs

The total capital cost for the IOS components is estimated to be $48.1 million in 2002 dollars ($50.9 million in YOE dollars). Components include site preparation, sidewalks and roadways, landscaping and utility work, BRT stops, and restoration of adjacent utility infrastructure. The project is fully funded through a combination of FTA sources matched by City General Obligation Bonds. The IOS capital cost funding will come from a $31.0 million city appropriation (FY 2003) and two FTA appropriations in FY 2002 and FY 2003 totaling $19.85 million. The IOS construction should be completed by 2005.

As stated in Section IOS.2.4.2, some of the existing bus routes will be modified to avoid service duplication with the IOS. The total size of the City's bus fleet will not change with implementation of the IOS. The cost of the IOS vehicles is separate from the capital cost of the IOS since all ten vehicles needed for the IOS operation will be purchased with City (non-Federal) funds as part of the regular fleet replacement program that will occur with or without IOS implementation. The cost by component in 2002 dollars is shown in Table IOS.2-2.

TABLE IOS.2-2
CAPITAL COST SUMMARY
(MILLIONS OF 2002 DOLLARS)

Project Component	Estimated Cost
Sidewalks/ Roadways	$20.57
BRT stops	$6.91
Landscaping	$6.03
Traffic Signal Improvements	$8.23
Utilities	$6.34
Total	**$48.08**

Sources: Rider Hunt Levett & Bailey Ltd., November 2002.

Note: The cost of the ten vehicles needed for the IOS operation is not included, because the vehicles are part of the existing fleet replacement program.

IOS.2.4 OPERATING AND MAINTENANCE COSTS

This section presents estimates of annual operating and maintenance (O&M) costs for the entire bus system including the IOS. The costs are for the service plan proposed for 2006 and are expressed in 2002 dollars.

IOS.2.4.1 Cost Estimation Methodology

Costs are produced using an estimation methodology for bus supply characteristics, calibrated to Oahu Transit Services' (OTS's) annual expenses for 2002. The inputs to the estimation are derived from the travel demand forecasting models and consist of passenger loading assigned to the bus routes, as coded for the travel demand forecasting models, for the a.m. peak period, the p.m. peak period and the off-peak period, as well as the estimated running time and distance for each bus route. Based on these inputs, the frequency of bus service and number of vehicles – either standard buses, minibuses, articulated buses, or BRT vehicles – needed to accommodate the estimated demand during each of the three time periods is estimated. It further estimates the vehicle hours and miles that would be provided for the entire day. These daily estimates are then increased to an annual estimate and used to estimate annual bus operating costs. All steps in the process rely on data provided by OTS about its operating practices on a daily and annual basis.

The O&M costs for hybrid diesel-electric vehicles are estimated to be the same as for existing 60-foot articulated diesel vehicles. This assumption is based on experience in testing prototype hybrid diesel-electric, 60-foot articulated vehicles in other cities.

IOS.2.4.2 O & M Costs

Table IOS.2-3 presents the annual O&M costs in 2002 dollars using the methodology described above. O&M costs for the entire bus system, including the IOS , but not TheHandi-Van operations, would be about $119.3 million (in 2002 dollars).

TABLE IOS.2-3
ANNUAL OPERATING AND MAINTENANCE COST SUMMARY, 2006
(2002 DOLLARS, EXCLUDING THEHANDI-VAN O&M COSTS)

No-Build Condition	IOS	Difference
$119,595,000	$119,330,279	- $264,721

Source: Parsons Brinckerhoff, March 2003.

The proposed bus system with the IOS will yield about $264,700 in annual O&M savings, as compared to the No-Build condition (in 2002 dollars). The amount of new BRT service will be offset by a slightly larger reduction in existing services. The proposed BRT service will add about 48,000 revenue-hours and 404,000 revenue-miles annually. Offsetting changes to Routes 8, 55, 56, and 57 will save about 55,000 revenue-hours and 424,000 revenue-miles annually.

IOS.3 NO-BUILD CONDITION AND AFFECTED ENVIRONMENT

This IOS section references the Year 2006 No-Build condition. The 2006 No-Build condition is different from the No-Build Alternative described and analyzed elsewhere in this FEIS. Passenger service on the IOS will start in Year 2005, with construction of the entire IOS system being completed in the same year.

Therefore, the environmental analysis presented in this IOS chapter compares the 2006 No-Build condition with the proposed IOS during its first full year of operation. Because 2006 is less than three years from the time of the preparation of this document, it is projected that most environmental and social conditions of the 2006 No-Build condition will be approximately the same as the existing conditions described in Chapter 3 of this FEIS.

IOS.4 TRANSPORTATION IMPACTS AND MITIGATION

This section presents a summary of the potential transportation impacts associated with the IOS, as anticipated for the year 2006.

IOS.4.1 Transit Impacts

The IOS will operate in a combination of exclusive, semi-exclusive and mixed flow transit lanes. There will also be traffic signal priority at selected intersections to speed up BRT service.

The proposed average transit headways for the IOS is six minutes during peak periods and ten minutes during off-peak periods. Ten BRT vehicles will be needed to provide peak period service.

Most existing local and express bus service will be maintained, including Routes 19 and 20 that travel on Ala Moana Boulevard as local service and Routes 201 and 202 that travel on Ala Moana Boulevard as express routes. Because the IOS will serve the same function as the existing Route 8, Route 8 will be replaced by the IOS. Likewise, Routes 55, 56, and 57 that provide suburban bus service from the windward side of Oahu to Downtown and then Ala Moana Center will terminate in Downtown. It is projected that there would be 63 fewer transit vehicles per day on Kuhio Avenue, due to the replacement of Route 8 with IOS.

With these proposed changes, the forecasted Year 2006 linked transit trips and the daily transit boardings for the IOS are as summarized in Table IOS.4-1. The proposed enhancements included in the IOS are projected to result in approximately 4,500 new transit riders per day more than the No-Build in 2006 or about a fourth of the boardings on the IOS buses.

TABLE IOS.4-1
PROJECTED YEAR 2006 TRANSIT RIDERSHIP

	Estimated Daily Trips/Boardings
Systemwide No-Build Daily Linked Transit Trips	199,680
Systemwide IOS Daily Linked Transit Trips	204,190
Projected New Transit Riders to System	4,510
Daily IOS Boardings	16,370

Source: Parsons Brinckerhoff, April 2003.

IOS.4.2 Urban Intersection Impacts

Because auto capacity along streets within the urban core of Honolulu is governed by intersection operations, intersection analyses were performed to assess the impacts of the IOS in relation to the No-Build condition.

The signalized intersection method of intersection operations analysis as documented in the 2000 Highway Capacity Manual was used to evaluate projected Year 2006 intersection conditions during the A.M. and P.M. peak hours. This evaluation method uses level of service (LOS) to characterize intersection operations at the intersections evaluated. LOS is based on average stopped delay expressed in seconds per vehicle (sec/veh) and ranges from LOS A for very little delay to LOS F for congested, forced flow conditions.

Twenty-five key intersections along the IOS route were evaluated. These intersections were grouped into four areas for ease of discussion, and because traffic issues within these groupings tend to be similar. These areas are Downtown, Kakaako, Ala Moana-Fort DeRussy, and Waikiki.

IOS.4.2.1 Downtown Traffic Operations

Year 2006 traffic volume forecasts for Downtown are based on previously conducted traffic turning movement counts and 24-hour traffic volume counts conducted by the State of Hawaii Department of Transportation (HDOT) in Year 2002. An analysis of previous studies and historical trends in the area indicate that a 0.5% annual growth rate is appropriate to linearly extrapolate traffic to Year 2006 levels. The IOS will add ten BRT vehicles per hour and these are assumed to be equivalent to 20 passenger vehicles per hour in the operational analyses. Table IOS.4-2 summarizes the intersection LOS in the Downtown area for the IOS and No-Build conditions.

TABLE IOS.4-2
PROJECTED YEAR 2006 PEAK HOUR INTERSECTION OPERATIONS
DOWNTOWN AREA

Intersection	Peak Time Period	No-Build		IOS	
		LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
Bishop Street and	A.M.	C	28.8	C	28.8
King Street	P.M.	B	19.0	B	19.0
Alakea Street and	A.M.	B	17.8	B	17.9
King Street	P.M.	C	20.7	C	20.7
Bishop Street and	A.M.	C	21.6	C	22.5
Nimitz Highway	P.M.	C	22.5	C	22.6
Alakea Street and	A.M.	C	22.0	C	22.3
Ala Moana Blvd. (Nimitz)	P.M.	C	20.2	C	20.4

Source: Parsons Brinckerhoff, April 2003.

As shown in the table, the IOS will result in little difference from the No-Build condition in terms of traffic LOS. The maximum projected increase in intersection delay is 0.9 seconds, and this would occur at the Nimitz Highway/Bishop Street intersection. The key reasons for this small difference is that there are no lane configuration changes involved, since BRT vehicles will be traveling mostly in mixed flow, and the additional traffic due to ten BRT vehicles is minor.

The impact of the IOS on the Hotel Street Transit Mall was qualitatively evaluated. Currently, the Hotel Street Transit Mall is restricted to transit vehicles except for a short segment between Alakea and Richards Streets. Adding approximately ten BRT vehicles per hour in each direction during peak hours is not expected to affect existing transit operations negatively on the transit mall. The BRT vehicles will only stop twice: once in Chinatown and once at Union Mall.

IOS.4.2.2 Kakaako Traffic Operations

Forecasted volumes for the Kakaako area in year 2006 are based on traffic volume data collected in 1999 and 2000 and 24-hour traffic volume data collected by the SDOT. Based on these data, an annual growth rate of 1.4% was used to linearly extrapolate traffic volumes up to Year 2006. Based on the forecasted peak hour traffic volumes, intersection operations analyses were conducted and the results are summarized in Table IOS.4-3.

As shown in Table IOS.4-3, there is very little difference in intersection operations between the No-Build and IOS conditions. The lane geometry and signal operation of the intersections summarized in this table are expected to remain the same between the No-Build and IOS conditions. Most of the Ilalo Street intersections

within the Kakaako Makai area are unsignalized with the through movement on Ilalo Street having the right-of-way. The Ilalo Street intersections at Ahui Street and Cooke Street are exceptions. They will be configured as

TABLE IOS.4-3
PROJECTED YEAR 2006 PEAK HOUR INTERSECTION OPERATIONS
KAKAAKO AREA

Intersection	Peak Time Period	No-Build LOS	No-Build Delay (sec/veh)	IOS LOS	IOS Delay (sec/veh)
Punchbowl Street and	A.M.	B	15.1	B	15.1
Ala Moana Boulevard	P.M.	D	38.7	D	39.5
Forrest Ave/South St. and	A.M.	D	37.9	D	38.0
Ala Moana Boulevard	P.M.	D	44.1	D	46.8
Cooke Street and	A.M.	A	7.8	A	7.9
Ilalo Street (4-way STOP)	P.M.	A	8.4	A	8.5
Ward Avenue and	A.M.	D	45.4	D	45.8
Ala Moana Boulevard	P.M.	D	50.7	D	52.3
Kamakee Street and	A.M.	B	12.4	B	12.4
Auahi Street	P.M.	B	12.9	B	12.9
Ala Moana Boulevard and	A.M.	C	26.8	C	27.5
Queen Street	P.M.	C	31.2	C	32.0
Ala Moana Boulevard and	A.M.	D	39.9	D	42.6
Piikoi Street	P.M.	D	40.2	D	43.1

Source: Parsons Brinckerhoff, April 2003.

4-way STOP controlled intersections based on traffic studies conducted for the University of Hawaii Health and Wellness Center. The Ilalo Street/Cooke Street intersection was selected as representative of this type of intersection, and it was analyzed using the unsignalized intersection method documented in the 2000 Highway Capacity Manual. The BRT vehicles are projected to have minimum impacts along this corridor.

Along Auahi Street, the BRT vehicle will travel in semi-exclusive curb lanes. Operations at the Kamakee and Auahi Streets intersection will continue to operate at LOS B. The IOS is proposed to operate in mixed traffic along the section between Queen Street and the Ala Wai Bridge. The lane conversions that are part of the Refined LPA will take place in the future when more of the Refined LPA segments are in place and the diversion of motorists to transit is sufficient to offset the traffic impacts of the lane conversions.

IOS.4.2.3 Ala Moana-Fort DeRussy Traffic Operations

The Ala Moana-Fort DeRussy analysis area is located between Atkinson Drive on the Ewa end and Fort DeRussy on the Koko Head end. Forecasted volumes for Year 2006 were projected using traffic volumes obtained from past traffic studies in Waikiki and from traffic volume counts conducted by the HDOT at the Ala Wai Canal Screenline. The yearly growth rate of 1.4% was found to be consistent with both past studies in the area and HDOT yearly trends, and it was applied to linearly extrapolate turning movement traffic volumes to the Year 2006 analysis year.

Ala Moana Boulevard, between Atkinson Drive and Kalakaua Avenue, experiences periods of congestion today. To help lessen the congestion, the IOS will add a semi-exclusive transit lane in each direction on Ala Moana Boulevard between Holomoana Street and Kalia Road by reducing the width of the existing raised

median and narrowing existing traffic lanes. Figure IOS.4-1 shows the configuration of traffic lanes on Ala Moana Boulevard between Holomoana Street and Kalia Road.

In the Koko Head-bound direction, the semi-exclusive lane will added to the existing three general-purpose lanes. BRT vehicles, local buses, tour buses and trolleys, and vehicles making right-turns will be allowed into this semi-exclusive lane. The lane will begin just Ewa of Holomoana Street and continue to Kalia Road. This will result in the following lane configuration at Hobron Lane: three lanes dedicated to through traffic movement, an exclusive left-turn lane, and a semi-exclusive lane. At Kalia Road, the semi-exclusive lane will become a right-turn-only lane into Kalia Road. Two of the three general-purpose lanes will continue through the Kalia Road intersection, while one general-purpose lane will become a right-turn only lane. There will also be an exclusive left-turn lane for turns onto Ena Road from Ala Moana Boulevard. The net effect in the Koko Head-bound direction will be to create a double right-turn movement, helping to accommodate the substantial existing and projected future right-turning traffic at Kalia Road.

In the Ewa-bound direction, the semi-exclusive lane will begin at the Kalia Road intersection. It will continue to Hobron Lane, where it will become a right-turn only lane except for City buses. City buses in the semi-exclusive lane will be given an advance green signal to allow BRT and other City buses to transition into the general purpose lanes without conflicting with other Ewa-bound through traffic on Ala Moana Boulevard. Ewa of Hobron Lane, the lane configurations will be the same for the No-Build and IOS conditions.

It is assumed that by the Year 2006 time frame, a new full movement, signalized intersection will be constructed on Ala Moana Boulevard at Dewey Lane. Existing Dewey Lane is a connector road between Holomoana Street and Ala Moana Boulevard located between the Renaissance Ilikai Hotel and the Hilton Hawaiian Village. Dewey Lane intersects a short frontage road of Ala Moana Boulevard currently used as a municipal bus stop and tour bus loading area. The traffic analysis takes into account the future development plans proposed in the Waikikian Development Plan EIS.

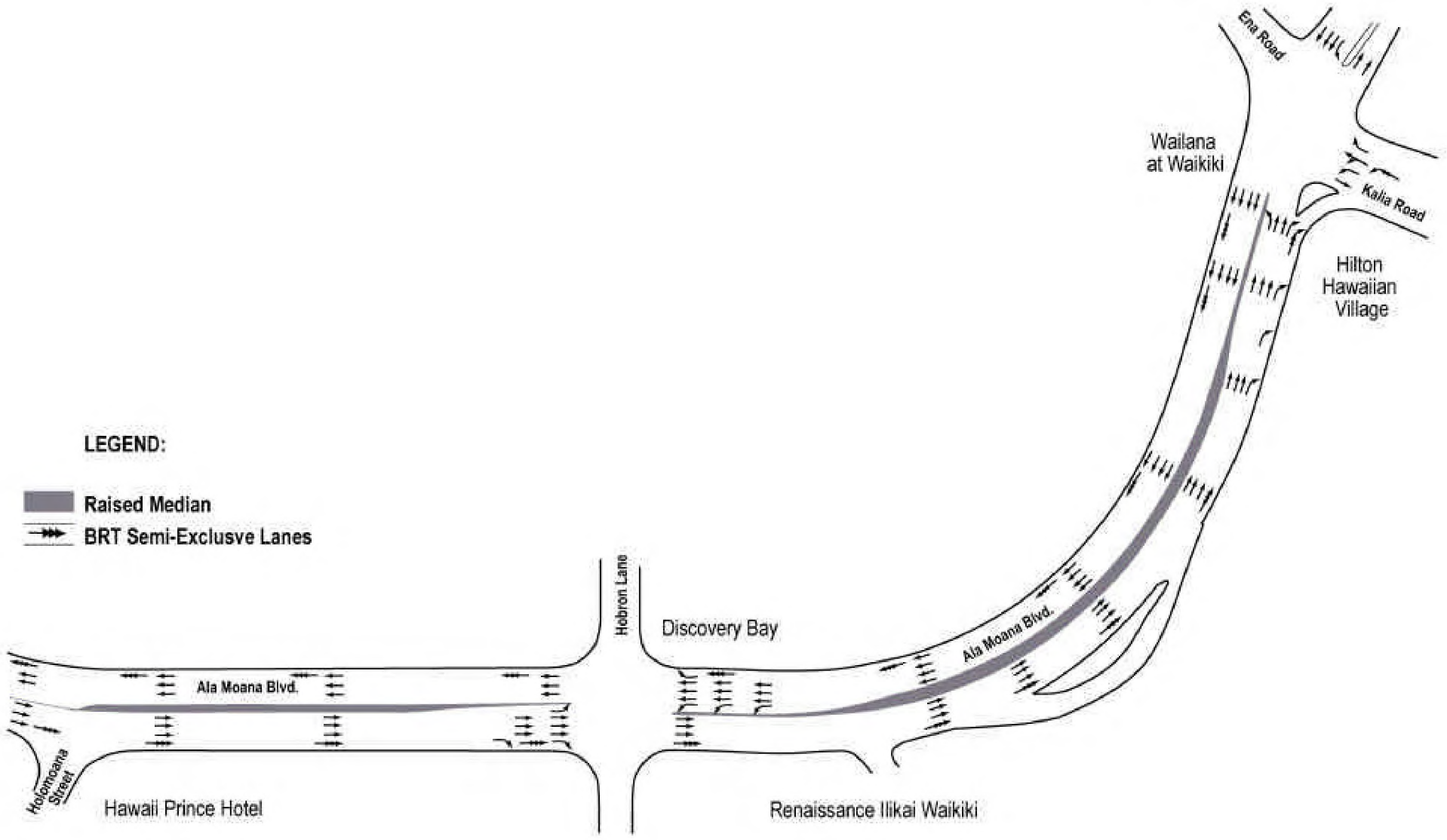
Table IOS.4-4 summarizes projected 2006 traffic conditions for the Ala Moana-Fort DeRussy area.

TABLE IOS.4-4
PROJECTED YEAR 2006 PEAK HOUR INTERSECTION OPERATIONS
ALA MOANA-FORT DERUSSY AREA

Intersection	Peak Time Period	No-Build		IOS	
		Auto LOS	Delay (sec/veh)	Auto LOS	Delay (sec/veh)
Ala Moana Boulevard and Atkinson Drive	A.M.	D	50.8	D	48.3
	P.M.	E	58.3	E	57.2
Ala Moana Boulevard and Hobron Lane	A.M.	C	34.8	C	30.9
	P.M.	D	37.2	C	32.3
Ala Moana Boulevard and Dewey Lane	A.M.	B	18.6	B	17.6
	P.M.	C	26.3	C	26.4
Ala Moana Boulevard and Kalia Road	A.M.	D	40.9	D	41.3
	P.M.	D	40.1	D	41.1
Kalia Road and Saratoga Road	A.M.	C	24.9	C	25.0
	P.M.	C	27.9	C	28.2

Source: Parsons Brinckerhoff Inc., April 2003.

The above analyses show little difference between the No-Build and IOS conditions in terms of LOS for these intersections.



SOURCE:
Parsons Brinckerhoff Inc., 2002.

NOT TO SCALE

Traffic Lane Configuration on Ala Moana Blvd. Between Holomoana Street & Kalia Road

Figure IOS.4-1

Kalia Road, is currently configured with five traffic lanes (2 Koko Head bound, 2 Ewa bound, and 1 median left-turn lane) between Ala Moana Boulevard and Maluhia Road (Hale Koa Hotel and Fort DeRussy entrances). Koko Head of Maluhia Road, Kalia Road is a two-lane roadway with one lane in each direction and left-turn lanes provided at key intersections. The IOS includes widening of the two-lane segment of Kalia Road by one lane in each direction, with these lanes being designated as semi-exclusive lanes. BRT, local buses, private buses, and autos turning right into driveways on Kalia Road will be able to use these lanes. Removing these vehicles from the existing general-purpose lanes will provide room for other local traffic along this segment.

The Kalia Road/Ala Moana Boulevard intersection is expected to have similar LOS between the No-Build and IOS conditions. Kalia Road currently transitions from a two-way street to an Ewa-bound one-way street at Saratoga Road. The existing Saratoga/Kalia Road intersection is STOP-sign controlled. In the projected 2006 scenario, the IOS project will modify this intersection to make traffic movements between the Ewa Kalia leg and the Saratoga leg the through movement. The Koko Head Kalia leg will form a T-intersection with this through movement and will be signalized.

IOS.4.2.4 Waikiki Traffic Operations

The Waikiki area includes key intersections along Kalakaua and Kuhio Avenues between Saratoga Road and Kapahulu Avenue.

Forecasted volumes for the year 2006 were projected using traffic volumes obtained from past traffic studies in Waikiki and from traffic volume counts conducted by the SDOT at the Ala Wai Canal Screenline. The yearly growth rate of 1.4% was found to be consistent with both past studies in the area and the HDOT yearly trends, and it was applied to linearly extrapolate turning movement traffic volumes to the Year 2006 analysis year.

Lane configurations for intersections within this segment of the IOS alignment are the same for the No-Build and IOS conditions with the following exceptions: the makai curb lane on Kalakaua Avenue between Saratoga Road and Uluniu Avenue will be converted to a semi-exclusive lane in the IOS. This lane will be available for right turning vehicles and buses, both public and private. Another exception will occur at Kalaimoku Street. Currently, this street is a two-lane, one-way, mauka-bound street from Kalakaua Avenue to Ala Wai Boulevard. As part of the IOS, this street will be modified to accommodate an additional lane in the makai-bound direction between Kuhio Avenue and Kalakaua Avenue. The additional lane will be provided by eliminating on-street parking and narrowing the existing lanes on Kalaimoku Street. This configuration will allow BRT vehicles to return to Saratoga Road, which is a two-way street. The mauka-bound capacity for traffic on Kalaimoku Street will remain the same as with existing conditions. Also, on Saratoga Road at Kalakaua Avenue, a new lane will be added in the mauka-bound direction to allow an additional right turn movement onto Kalakaua Avenue.

The Waikiki Livable Communities Study has undertaken a comprehensive review of Waikiki with the intent of providing a more walkable environment for visitors and residents. There are many pieces being examined by the study, one of which is the widening of sidewalks along Kuhio Avenue. The sidewalk widening, to be done concurrent with the IOS, will displace one lane of traffic on Kuhio Avenue. The IOS in 2006 will operate in mixed traffic along Kuhio Avenue so that the traffic impacts of further reducing auto capacity are avoided. The Refined LPA calls for the conversion of one of the Ewa bound lanes in the future to a semi-exclusive transit lane when the ultimate systemwide beneficial effects of the Refined LPA of diverting motorists to transit and of reducing in half the number of buses operating on Kuhio Avenue can offset the loss of another traffic lane on Kuhio Avenue.

Table IOS.4-5 summarizes the projected Year 2006 Waikiki intersection levels of service for the weekday A.M. and P.M. peak hour time periods.

TABLE IOS.4-5
YEAR 2006 PEAK HOUR INTERSECTION OPERATIONS
WAIKIKI

Intersection	Peak Time Period	No Build LOS	No Build Delay (sec/veh)	IOS LOS	IOS Delay (sec/veh)
Kalakaua Avenue and Saratoga Road	A.M.	B	14.2	B	14.3
	P.M.	B	16.0	B	16.3
Kalakaua Avenue and Seaside Avenue	A.M.	A	8.9	A	8.9
	P.M.	A	9.2	A	9.2
Kuhio Avenue and Kapahulu Avenue	A.M.	B	16.1	B	16.1
	P.M.	C	32.7	C	32.8
Kuhio Avenue and Liliuokalani Avenue	A.M.	C	20.6	C	20.7
	P.M.	C	34.1	C	34.1
Kuhio Avenue and Kanekapolei Street	A.M.	B	12.8	B	12.8
	P.M.	B	13.5	B	13.5
Kuhio Avenue and Seaside Avenue	A.M.	B	10.0	B	10.0
	P.M.	B	14.1	B	14.2
Kuhio Avenue and Royal Hawaiian Avenue	A.M.	B	11.3	B	11.3
	P.M.	B	12.3	B	12.3
Kuhio Avenue and Lewers Street	A.M.	B	11.8	B	11.8
	P.M.	C	23.0	C	23.0
Kuhio Avenue and Kalaimoku Street	A.M.	B	11.4	B	11.4
	P.M.	B	16.6	B	16.8

Source: Parsons Brinckerhoff, 2003.

Minimal impacts are projected for the Waikiki segment when comparing the IOS to the No-Build condition. The BRT vehicles will run in mixed flow on Kuhio Avenue and Kapahulu Avenue and in semi-exclusive lanes on Kalakaua Avenue. On Kalakaua Avenue, the semi-exclusive lanes will be shared by BRT vehicles, tour buses, and vehicles making right turns onto cross streets. Analyses indicate that with this configuration traffic LOS will not be significantly different compared to the No-Build condition.

The Kalakaua Avenue/Saratoga Road intersection will have the most difference in peak hour operation with the IOS operating with slightly more delay per vehicle during the A.M. peak hour.

IOS.4.3 Parking Impacts

IOS.4.3.1 On-Street Parking Impacts

The only potential parking impacts with the IOS will be to on-street parking.

Curbside parking spaces were counted as being affected if their expected use in Year 2006 will be affected in any way, either all day long or by limiting their use to off-peak hours. Parking spaces are categorized by availability during peak and off-peak hours. "Unrestricted parking" spaces are defined as those currently available during peak and off-peak hours.

"Restricted parking" spaces refer to all other types, namely spaces that currently have some time restriction on parking, with most such spaces typically available only during off-peak hours. These spaces will not be affected by peak-period transit operations, because their use already is not allowed during the peak traffic hours. The definition of restricted parking also includes spaces that are available for use only on weekends, holidays, and overnight on weekdays, such as on Ala Moana Boulevard.

The number of affected parking spaces was determined from City and County striping plans and/or independent field checks. Where curb parking spaces were not marked by parking meters and/or parking space stripings, the linear curbside distance available for parking (exclusive of driveways and other uses such as bus stops, loading zones, no parking zones, etc.) was measured and divided by 22 feet, a typical parking space length according to the current City and County's Traffic Standards Manual (DTS, July 1976).

The IOS will affect a total of 22 existing unrestricted spaces. Unrestricted spaces will be affected on Queen Street (5 marked spaces), Saratoga Road (5 marked spaces), and Kapahulu Avenue (12 marked spaces). The parking for the Kakaako Makai area will be coordinated with the Hawaii Community Development Authority (HCDA).

The IOS will not affect weekend, holiday, or overnight parking on the makai side of Ala Moana Boulevard adjacent to Ala Moana Park. The IOS will travel to Waikiki using the center lane during the off-peak times when vehicles are legally allowed to park along the curb.

IOS.4.3.2 Parking Impact Mitigation

Near each of the locations where on-street parking will need to be removed there are large existing off-street parking facilities with reserve capacity to absorb the on-street parkers. Replacement of the removed parking is therefore not deemed necessary.

IOS.4.4 Loading Zone Impacts

Most loading zones are restricted to use by commercial vehicles, which are primarily tour buses and freight vehicles with permits. Other vehicles that may stand briefly in such loading zones include taxicabs, armored cars, and special transit service vehicles. Existing municipal bus stops are not considered loading zones.

Preliminary engineering for the IOS has taken into consideration the need to avoid as much as possible impacts to passenger and freight loading zones. The IOS will not result in any loading zone impacts. The following discussion provides additional detail on how some potential loading zone impacts in Waikiki were avoided. In Waikiki, the IOS will not preclude use of any existing commercial passenger (taxi) loading zones or any tour bus or trolley loading/unloading locations on Kuhio and Kalakaua Avenues.

On Kuhio Avenue, the BRT will operate in mixed-traffic in the mauka curb lane. Presently, freight loading is generally permitted along both sides of the street from 10 P.M. to 7:30 A.M. With the widening of sidewalks to be constructed concurrently with the IOS as part of a separate City project, turnout bays and widened curbside lanes will be provided along both sides of Kuhio Avenue to allow commercial freight vehicles, tour buses, taxis, and trolleys to load and still allow moving vehicles to pass parked vehicles. The separate City project will provide additional loading areas on side streets between Seaside Avenue and Walina Street, where the heaviest loading activities occur.

On Kalakaua Avenue, there will not be any noticeable impact to freight loading. Commercial freight carriers will be allowed to use the makai-side, semi-exclusive curb lane during legal delivery hours (10 P.M. to 9 A.M.). The BRT will simply pass around a stopped loading truck by using the adjacent traffic lane. Passenger and freight loading operations that use the existing pullouts on the makai curb will not be affected by the BRT.

An existing tour bus loading zone on Saratoga Road, mauka of its intersection with Kalia Road will be relocated under a redevelopment plan for Outrigger Hotels that has already been approved by the City Council. Therefore, the BRT stop proposed at this location will not displace the tour bus loading zone, and there will be no loading zone impacts on Saratoga Road.

IOS.4.5 Bicycling Impacts

This section describes potential impacts of the IOS to existing and currently proposed bicycle systems in the study area, as described in the Honolulu Bicycle Master Plan (April 1999) and the Draft Bike Plan Hawaii: State Master Plan (May 2003). Both master plans are consistent in recommending the development of a regional bike corridor, which would be a grid of east-west and mauka-makai bikeways. Implementation of the bicycle master plans will continue with the IOS.

One of the primary purposes of the IOS is to enhance in-town mobility by restoring a balanced transportation system that includes measures that encourage transit, bicycle, and pedestrian modes. Therefore, the IOS has been designed to provide concurrent systems enhancing transit, bicycle and pedestrian travel within the very limited space of the existing roadway rights-of-way. All buses will have bike racks to accommodate intermodal transit. New bike parking racks will continue to be installed around the city.

Although most of the IOS alignment is not designated as a "bikeway", roadways along the segment are used by cyclists to varying degrees because of the paucity of bikeway facilities. As stated in Section IOS 2.1, semi-exclusive/exclusive BRT curbside lanes will be provided on Auahi Street, portions of Ala Moana Boulevard, Kalia Road, Saratoga Road in the vicinity of Fort DeRussy, and a segment of Kalakaua Avenue between Saratoga Road to Uluniu Street. Cyclists will be allowed to use these semi-exclusive/exclusive BRT curbside lanes, which will be an improvement in bicycle transportation over existing conditions where curbside lanes along these street segments are used by mixed or general traffic. In addition, bicycle transportation will improve on Kuhio Avenue in Waikiki because as part of another project to widen this road's sidewalks (see Section IOS 2.1.3), the curbside lanes will be widened, improving the ability of cyclists to share the lanes with motorists. The level of bicycle access and transportation service along the rest of the IOS will remain the same as today.

IOS.4.6 Pedestrian and Special Event Impacts

The IOS will be constructed primarily on existing roadways and existing pedestrian street crossings will be preserved or enhanced. Pedestrian access will be provided at transit stops in conformance with the Americans with Disabilities Act (ADA).

Moreover, the IOS will provide benefits for all pedestrians in a number of ways. Transit uses less space to carry more people than automobiles. The environmentally friendly transit vehicles that will be used with the IOS will produce less noise and air pollution. These factors will contribute to an improved urban walking experience.

Waikiki is a frequent venue for parades, races, and road closures. During these times, the IOS route will detour to Kuhio Avenue along with other vehicular traffic, such as occurs at the current time.

IOS.5 ENVIRONMENTAL ANALYSES AND CONSEQUENCES

This section provides discussion on the potential impacts of the IOS within a time frame shortly after implementation of this segment (2006).

IOS.5.1 Land Use and Employment

IOS.5.1.1 Land Use and Development

The IOS is located in the Primary Urban Center (PUC), one of the eight planning areas in the City and County of Honolulu. The PUC extends from Pearl City at the Ewa end to Waialae-Kahala at the Koko Head end, and is bounded on the north by the Koolau Mountain Range and on the south by the coastline. The PUC is the most urban and heavily populated area on the island and in the State. The portion of the PUC served by the IOS includes high-density residential, business, hotel and commercial districts, such as downtown Honolulu, the city's central business district, and Waikiki, the State's largest resort area. The area between downtown and Waikiki is Kakaako-Ala Moana, an area containing mostly commercial businesses, such as Ala Moana Center and Victoria Ward Centre, which are two of the State's larger shopping centers, and several high-rise apartment condominiums.

As shown in Table IOS.5-1, Major Destinations Served by the IOS, the IOS will provide transit service to many of the important economic centers and cultural/ recreational attractions in the PUC. Included along the IOS alignment are some of the island's most significant destinations including Downtown Honolulu, Ala Moana Center, and Waikiki.

TABLE IOS.5-1
MAJOR DESTINATIONS SERVED BY THE IOS, IWILEI TO WAIKIKI

Location	Size or Service Levels
Iwilei Industrial District	320 acres
Chinatown	30 acres
Downtown Financial District	60,000 daytime population
Aloha Tower Marketplace / Maritime Center	22 acres
Kakaako	600+ acres; 20,000 workers
Kakaako Waterfront Park	30 acres
Victoria Ward Centers	250,000+ square feet
Ala Moana Center	2 million square feet GLA
Ala Moana Park	About 120 acres
Waikiki	3.7 million annual visitors; 19,720 residents.
Honolulu Zoo	700,000 attendees/year
Kapiolani Park	155 acres
Hilton Hawaiian Village	22 acres; 2,545 rooms; 1,900+ employees
Hale Koa Hotel, Fort DeRussy	72 acres; 817 rooms; 900+ employees
Royal Hawaiian Shopping Center	279,000 square feet GLA; 1,500+ employees

Sources: City Department of Planning and Permitting, State Department of Business, Economic Development and Tourism, and Parsons Brinckerhoff, September 2002.
Note: GLA = gross leaseable area

The development pattern along the IOS alignment is unlikely to change much within the next four or five years, with the exception of new growth in Kakaako Makai. Implementing the IOS will convey the message to the development community that government is willing to invest in a more fixed transit system, one that would provide a sense of permanence in the primary transportation corridor. Such investments combined with favorable policies and market conditions have strongly influenced transit-oriented development in other cities with mixed-use high-density residences and pedestrian-scale commercial districts.

IOS.5.1.2 Consistency with Land Use Plans and Policies

The IOS is consistent with the plans and policies of the State of Hawaii and the City and County of Honolulu. It is consistent with plans for transportation, recreation, educational institutions, military installations, and major private sector developments.

State Plans, Policies and Programs

Hawaii State Plan

The Hawaii State Plan (June 1991) consists of comprehensive goals, objectives, policies and priorities in all areas of government functions, such as the protection of the physical environment, the provision of public facilities, and the promotion and assistance of socio-cultural advancement. The IOS is consistent with the objectives and policies of the State Plan, in particular those relating to public welfare and economic development because it further develops the transportation infrastructure.

State Land Use Classifications

The State Land Use Commission (SLUC) regulates land use statewide by establishing four categories: Urban, Agriculture, Conservation, and Rural. The lands within the service area of the IOS are classified as Urban. The IOS is consistent with this classification.

Coastal Zone Management Program

The objectives and policies of the Hawaii Coastal Zone Management (CZM) Program are intended to protect and manage Hawaii's valuable coastal areas and resources. Pursuant to 15 CFR 930.32, federally permitted, licensed, or assisted activities undertaken in or affecting Hawaii's coastal zone must be consistent with the objectives and policies of the CZM program. The Department of Business, Economic Development and Tourism (DBEDT), the agency administering the State's CZM program, concurred with DTS's CZM consistency determination (see Appendix A).

Kakaako Mauka and Makai Area Plans

The Kakaako Community Development District Plan was initially adopted in 1982 and is continuously updated. It serves as the basis for guiding public and private development activities in Kakaako. The district has been divided into two planning areas, and major investment, both public and private, is taking place as a result of the plans. The dividing line is Ala Moana Boulevard and the two planning areas (called Mauka and Makai) serve different functions and land uses.

The Mauka Plan establishes a set of zones for commercial, retail and residential parcels. The Makai Plan adopts a mixed use district for waterfront uses, cruise ship piers, parks, recreation, museums, the University of Hawaii Medical School, and medical/biotech research facilities.

The IOS runs through the heart of the Makai Planning Area for its entire length and then crosses over Ala Moana Boulevard to run through the retail portion of the Mauka District. The IOS connects the Mauka and Makai Areas to each other as well as to the two adjacent districts of Downtown and Waikiki. Thus, the IOS supports the mixed use development plans for both Kakaako areas.

Aloha Tower Development Plan, Honolulu Waterfront Master Plan and Oahu Commercial Harbors 2020 Master Plan.

The Aloha Tower Master Plan, prepared in the late 1980s, proposed maritime facilities, restaurants, retail shops, offices, a hotel, and residential condominiums at Piers 5 to 14. Thus far, only the first phase, the Aloha Tower Marketplace development at Piers 8 to 10, has been completed. The master plan is being updated for Piers 5/6, 10/11 and 12 – 14. The 1989 Honolulu Waterfront Master Plan Final Report (1989) included a variety of mixed-use developments in the harbor vicinity. The Oahu Commercial Harbors 2020 Master Plan (May 1997) (OCHMP) covered all of the commercial harbors on the island: Honolulu Harbor, Kalaeloa Barbers Point Harbor, and Kewalo Basin, updating separate 2010 plans, including the Waterfront Plan. The OCHMP only addressed issues and needs relating to the maritime industry (e.g., cargo and passenger movements and fishing), unlike the Waterfront Plan, which addressed additional waterfront issues, such as commercial development and landside recreation.

By providing improved transit access to Aloha Tower and the Downtown waterfront, the IOS will help support implementation of these plans.

State Cruise Ship Terminal Needs Assessment

A study by the SDOT Harbors Division recommended a cruise ship terminal at Pier 2 in Honolulu Harbor. The IOS alignment would be near the proposed cruise ship terminal and will provide improved transit access for employees and other users of the proposed terminal at Pier 2.

UH Health and Wellness Center

The UH is constructing a new campus for the John A. Burns School of Medicine in Kakaako Makai. The UH Health and Wellness Center is located between Ilalo Street and Kakaako Waterfront Park. The IOS will support the transportation needs of the facility and could help reduce the demand for parking.

Military Installation Planning: Armed Forces Recreation Center – Fort DeRussy

Fort DeRussy in Waikiki has been redeveloped recently to fulfill its primary mission of recreation for military personnel. The redevelopment included pedestrian and landscape improvements at the mauka end of Kalia Road. The IOS will include the widening of part of Kalia Road, but this will not affect the installation's recreational facilities or recent pedestrian and landscape improvements.

City and County of Honolulu Plans, Policies, and Controls

General Plan

The General Plan (revised 1992) includes broad statements on the objectives and policies of the City and County of Honolulu with regard to overall physical and economic development of the island, as well as the health and safety of the island's residents. The Plan "address[es] the need for a balanced system for the pedestrian, bikeway, public transportation, and automobile". It also calls for a variety of attractive and convenient travel modes, including "public transportation-for travel to and from work...through a mass transit system including exclusive right-of-way rapid transit and feeder-bus components…." The IOS will support the transportation-related objectives of the General Plan because it will help balance the city's transportation modes compared to current conditions.

Primary Urban Center Development Plan (PUCDP)

The PUCDP is currently being revised. Until the revision is adopted, the previously approved PUCDP remains in force. According to the PUCDP (Revised Ordinances of Honolulu, 1990, Chapter 24, Article 2), the PUC shall accommodate relatively intensive commercial, governmental, residential, and recreational functions while safeguarding and adding to the existing amenities of the City's urban environment. The area to be served by the IOS contains intensive commercial, governmental, residential, and recreational land uses. Therefore, by providing improved transit service, the IOS will support the land uses envisioned in the PUCDP.

Special Management Area

In accordance with the 1975 Shoreline Protection Act and Hawaii Revised Statutes (HRS) Chapter 205A, the City and County of Honolulu has the authority to issue permits for development within the Special Management Area (SMA). The Department of Planning and Permitting (DPP) administers the SMA use permit program, but permitting approval on major SMA use permits is made by the City Council. No part of the IOS will adversely affect shoreline access or viewsheds to, from or along the shoreline. The IOS will also not introduce structures that will affect beach processes or present hazards along the shoreline.

Honolulu Bicycle Master Plan

As discussed in Section IOS.4.5, the IOS will be consistent with the Honolulu Bicycle Master Plan.

Hub-and-Spoke Bus Route Revision Program

The DTS is converting its radial bus network to a hub-and-spoke configuration. Hub-and-spoke networks provide an integrated system of convenient and accessible circulator, local and express routes, organized around transit centers. The IOS has been planned and coordinated with the hub-and-spoke program.

Oahu Metropolitan Planning Organization

The Oahu Metropolitan Planning Organization (OMPO), a joint State of Hawaii and City and County of Honolulu organization, is responsible for preparing the Oahu Regional Transportation Plan (ORTP). The Transportation for Oahu Plan 2025 (TOP 2025), adopted in April 2001, updates the 2020 ORTP in response to the changing transportation needs of Oahu and extends the planning horizon to Year 2025. The Refined LPA is included in the TOP 2025 Plan. The IOS, which is the first phase of the Refined LPA, is therefore also consistent with this plan.

Private-Sector Plans

Waikikian Development Plan

The Hilton Hotels Corporation is planning to replace the former Waikikian Hotel, located along Ala Moana Boulevard between the Hilton Hawaiian Village and the Renaissance Ilikai Hotel, with a new 350-room hotel building and other amenities. The IOS will benefit this development by providing improved transit access.

Waikiki Beach Walk

Outrigger Enterprises, Inc. is planning to redevelop its landholdings makai of Kalakaua Avenue in Waikiki, along Lewers Street, Kalia Road, Beach Walk, and Saratoga Road, to upgrade five existing hotels, demolish six older hotels, and provide a new entertainment retail complex, a new hotel, and enhanced public areas. The IOS will benefit this development by providing improved transit access.

IOS.5.1.3 Economic Impacts to Private Bus Operators

The IOS is designed to serve trips by Oahu residents going to-and-from home, work, school, shopping and other purposes. The IOS is not designed to serve the tourist market. Unlike private sector buses taxis, and vans, the transit vehicles of the IOS will not pick-up passengers at their hotels, transfer them to-and-from the airport, take them directly to a desired tourist destination non-stop, or accommodate luggage unless the luggage can fit on the passenger's lap. Although the IOS is not ideally suited for tourists, some may choose to use the IOS since it serves some activity centers that attract tourists, but these places are also major employment sites or sites where local residents go to as well. It is expected tourists will use the public transit system that includes the IOS at the same proportion as they do today, which is estimated at five to ten percent system-wide and 20-25 percent in Waikiki.

The priority lane treatments in Waikiki that are part of the IOS will benefit private bus operators as well as City buses. The lanes added to Ala Moana Boulevard and Kalia Road, and conversion of the makai curb lane on Kalakaua Avenue to a semi-exclusive lane will allow private buses to by-pass traffic in the other lanes during periods of congestion.

IOS.5.2 Displacements and Relocations

In general, the IOS facilities will be constructed within existing roadways, with the exception of the widening of Kalia Road in Fort DeRussy. The IOS will not result in the displacement of any residence, business or institution. At Fort DeRussy, there will be a partial displacement of landscaped areas next to the road, however, no buildings or structures will be affected. The removed landscaping will be replaced with similar landscaping along Kalia Road.

IOS.5.3 Neighborhoods, Community Facilities, and Environmental Justice

IOS.5.3.1 Community Cohesion and Activities and Public Safety

The IOS will not adversely affect community or neighborhood characteristics within its service area, which includes Chinatown, Kakaako and Waikiki. The IOS requires minimal additional right-of-way and would largely be limited to existing streets. Therefore, the IOS will not result in any visual and psychological barrier within neighborhoods. The IOS improvements will be at-grade, and will not impede neighborhood social interaction. In addition, the IOS transit stops will be designed to blend with and enhance the environment or neighborhoods in which they are located. Use of appropriate design character, construction materials and landscaping will help lessen the visual intrusion of a new facility in or adjacent to a neighborhood. Other design features include installation of new pedestrian paths or enhancement of such existing facilities.

The IOS will not displace any residence, business, or institution. The IOS transit stops, located at various locations in the corridor, will enhance community cohesion by providing transit-related gathering points.

The IOS will not adversely affect response times for emergency vehicles. The transit vehicles will be similar in maneuverability to the articulated buses now in use by TheBus for its CityExpress! routes, which are able to allow emergency vehicles to pass. Emergency vehicles will benefit by being able to use the semi-exclusive and exclusive transit priority lanes along certain segments of the IOS alignment during emergencies.

The IOS will enhance access to schools, parks, and recreation facilities along the alignment. Among these are Jefferson School, Ala Moana Regional Park, Kakaako Makai Gateway Park, and Kakaako Waterfront Park, Kuhio Beach, and Kapiolani Park. As discussed in Section IOS.5.11, there will be no adverse impacts to schools and parks. On the contrary, there will be beneficial impacts due to improved transit access.

System safety and security planning has been and will continue to be part of the overall system design for the IOS. The primary concern is for the safety of passengers and transit personnel, as well as pedestrians, motorists, and others using the affected streets. Specific safety and security measures to be used for the IOS will be developed during final design and operations planning. These measures will be consistent with those described in Section 5.3.4 of this FEIS.

IOS.5.3.2 Environmental Justice (Executive Order 12898)

Presidential Executive Order (EO) 12898, called the Executive Order on Environmental Justice (EJ) requires federal agencies to take appropriate and necessary steps to identify and avoid disproportionately high and adverse effects of federally assisted projects on minority and low-income populations' health or environment.

Two minority and low-income populations are within the IOS service area: Kalihi-Palama and Chinatown. Both populations are located on the west side of the IOS alignment. The IOS will not cause disproportionately high and adverse health or environmental effects on these two minority and low-income populations. On the contrary, the IOS will provide improved transit service for these neighborhoods without causing them to be divided or isolated from the greater community. In addition, the IOS will not create health risks, such as traffic safety hazards, for these populations out of proportion with health risks to other populations or groups in the corridor.

Public participation activities for the Primary Corridor Transportation Project (PCTP) occurred island-wide from 1998-2003. General outreach efforts included the project website <www.oahutrans2k.com>, print ads, newspaper articles, legal and public notices, Progress Report newsletters, and mass mailings that included EJ populations.

The meetings listed below were held in EJ neighborhoods or sub-areas within the IOS that may contain EJ populations. These meetings are only a portion of the numerous public meetings that were held for the project (see Appendix A).

Chinatown/Kalihi/Palama/Lower McCully/Kaheka Oahu Trans 2K Meetings

- 9/28/98-Oahu Trans 2K-Round One Public Workshop (Central Honolulu)
- 11/16/98-Oahu Trans 2K-Round Two Public Workshop (Central Honolulu)
- 3/27/99- Oahu Trans 2K-Round Three Public Workshop (Makiki/McCully-Moiliili/Manoa)
- 4/10/99-Oahu Trans 2K-Round Three Public Workshop (Kalihi-Palama)
- 4/13/99-Oahu Trans 2K-Round Three Public Workshop (Ala Moana/Kakaako/ Chinatown/Downtown)
- 10/25/99-Oahu Trans 2K-Round Four Public Workshop (Honolulu)
- 8/14/01-Oahu Trans 2K-Round Five Community Open House

Downtown/Kakaako Working Group

- 2/20/01-Downtown/Kakaako Working Group Meeting Number One
- 3/20/01-Downtown/Kakaako Working Group Meeting Number Two
- 4/10/01-Downtown/Kakaako Working Group Meeting Number Three
- 5/1/01-Downtown/Kakaako Working Group Meeting Number Four
- 5/22/01-Downtown/Kakaako Working Group Meeting Number Five
- 6/12/01-Downtown/Kakaako Working Group Meeting Number Six
- 6/26/01-Downtown/Kakaako Working Group Meeting Number Seven

Kalihi Working Group

- 3/15/01-Kalihi Working Group Meeting Number One
- 3/29/01-Kalihi Working Group Meeting Number Two
- 4/19/01-Kalihi Working Group Meeting Number Three
- 5/17/01-Kalihi Working Group Meeting Number Four
- 5/31/01-Kalihi Working Group Meeting Number Five
- 6/14/01-Kalihi Working Group Meeting Number Six
- 6/28/01-Kalihi Working Group Meeting Number Seven
- 8/4/01- Islandwide Vision Meeting and Working Group Mahalo Luncheon

IOS.5.4 Visual and Aesthetic Resources

Areas with high visual character and quality along the IOS alignment are:

- Chinatown Special District
- Nimitz Highway portion fronting Downtown Honolulu
- Ala Moana Boulevard fronting Ala Moana Park
- Kalia Road in Waikiki
- Kalakaua Avenue along Waikiki Beach
- Kapahulu Avenue between Kalakaua and Kuhio Avenues

The IOS will provide opportunities to enhance the visual quality of a portion of urban Honolulu by developing public spaces with more landscaping and street-level amenities that will improve the visual quality of the streetscape and enhance the pedestrian experience. The physical improvements and landscape treatments of the IOS could reinforce the character of neighborhoods and provide a visual sense of place.

Some IOS transit stops will be located in areas with high visual or aesthetic value, and may cause visual impacts if transit stop structures such as canopies and kiosks visually intrude upon important surrounding viewsheds. Therefore, each transit stop will be uniquely designed to fit appropriately into each setting and, where possible, to enhance the aesthetics of the area.

Sensitive areas where construction of transit stops is planned include:

- Downtown
- Aloha Tower
- Kakaako Makai Gateway and Waterfront Parks
- Ala Moana Park
- Fort DeRussy and along Kalakaua Avenue
- Kapiolani Park

The IOS transit stops in or near these areas will require special design treatment, which may also involve consultation with organizations that care for or have an interest in these areas. Moreover, all of the IOS transit stops will be designed to blend in with their surrounding contexts, based on public input and conformance with appropriate design standards. Effective planning with area businesses, residents, and agencies will result in design features sensitive to each area.

Under the IOS, no construction will be conducted at the Chinatown and Ala Moana Park stops; therefore, there would be no adverse impacts on views of any important landmarks or historic properties.

IOS.5.5 Air Quality

Honolulu meets the State and national Ambient Air Quality Standards (AAQS) for sulfur dioxide (SO_2), nitrogen dioxide (NO_2), ozone, carbon monoxide (CO) and particulate matter 10 microns in diameter (PM-10), as indicated by data from State of Hawaii Department of Health (HDOH) air quality monitoring stations. Honolulu and the State are presently attainment areas for all national AAQS. Despite the excellent air quality conditions, CO concentrations near congested intersections could exceed the State AAQS at times. The State AAQS for CO is more stringent than the national AAQS. By 2006, islandwide traffic conditions with the IOS would be similar to current conditions. Therefore, mesoscale, or islandwide, air quality conditions with the IOS are projected to be about the same as current conditions because overall emissions by all vehicles operating on the island will be similar.

Microscale, or "hot spot", air quality conditions under the IOS in 2006 are projected to be similar to existing conditions or the 2006 No-Build condition such that no mitigation is required. Microscale air quality impact analyses involve assessing worst-case CO concentrations near busy intersections that experience congested conditions for at least part of the day. Impacts are identified when CO concentrations are predicted to exceed State or national AAQS. Table IOS.5-2 provides 1-hour and 8-hour CO concentrations at selected intersections within the IOS corridor. The figures provided in this table represent the results of quantitative analysis, not actual air quality monitoring. The South King Street/Bishop Street intersection was analyzed as having the highest worst-case 1-hour and 8-hour concentrations at 17.6 mg/m^3 during the morning peak-traffic hour and 8.8 mg/m^3, respectively. One-hour values at other locations and times under the existing condition range from 3.6 mg/m^3 during the afternoon at the intersection of Hotel Street/Bishop Street to 17.1 mg/m^3 during the morning near the intersection of Ala Moana Boulevard/Atkinson Drive. Eight-hour values for other locations range from 2.6 mg/m^3 at the Kalakaua Avenue/Kaiulani Avenue intersection to 8.6 mg/m^3 at the Ala Moana Boulevard/Atkinson Drive intersection. Five of the selected nine intersections exceed State AAQS, but none exceed the less stringent national AAQS.

TABLE IOS.5-2
CURRENT WORST-CASE 1-HOUR AND 8-HOUR CARBON MONOXIDE CONCENTRATIONS NEAR SELECTED INTERSECTIONS WITHIN THE IOS CORRIDOR (MILLIGRAMS PER CUBIC METER)

Roadway Intersection	Existing 1-Hour		Existing 8-Hour
	A.M.	P.M.	
S. King Street / Bishop Street	17.6	13.8	8.8
Hotel Street / Bishop Street	6.1	3.6	3.0
Ala Moana Boulevard / South Street	12.3	10.2	6.2
Ala Moana Boulevard / Atkinson Drive	17.1	15.4	8.6
Ala Moana Boulevard/ Kalia Road	13.5	13.0	6.8
Kalakaua Avenue / Kaiulani Avenue	5.1	5.0	2.6
Kalakaua Avenue / Kapahulu Avenue	10.4	9.1	5.2
Kuhio Avenue / Kapahulu Avenue	9.0	6.2	4.5
Kuhio Avenue / Seaside Avenue	7.7	7.0	3.8

Source: B.D. Neal & Associates, 1999, 2001, and 2002.
Notes: Information provided on this table represent the results of quantitative analysis, not actual air quality monitoring.
Underline indicates worst-case condition exceeds Hawaii AAQS. The worst-case conditions do not exceed National AAQS.
Hawaii AAQS: 1-Hour: 10 mg/m^3 ; 8-Hour: 5 mg/m^3.
National AAQS: 1-Hour: 40 mg/m^3 ; 8-Hour: 10 mg/m^3 .

IOS.5.6 Noise and Vibration

Existing noise levels throughout the primary transportation corridor vary widely due to differing land uses and noise sources. Table IOS.5-3 lists existing noise levels at selected noise sensitive locations throughout the IOS corridor (see Figure IOS.5-1). The long-term locations are land uses with nighttime sleep activities, such as residences and hotels. The short-term locations represent daytime land uses that are noise sensitive, such as schools and certain parks. The Ldn (adjusted for nighttime noise sensitivity) noise levels at all but one of the long-term locations are in the 70 to 77 decibel range. The Leq (adjusted to 15-minute intervals) noise levels at the short-term locations are in the 66 to 73 decibel range. These are relatively high noise levels when compared to a suburban or rural setting, but are not surprising given the highly urban setting of the IOS corridor, an environment with substantial traffic and noisy activities.

TABLE IOS.5-3
MEASURED EXISTING NOISE LEVELS AT LOCATIONS ALONG THE IOS CORRIDOR

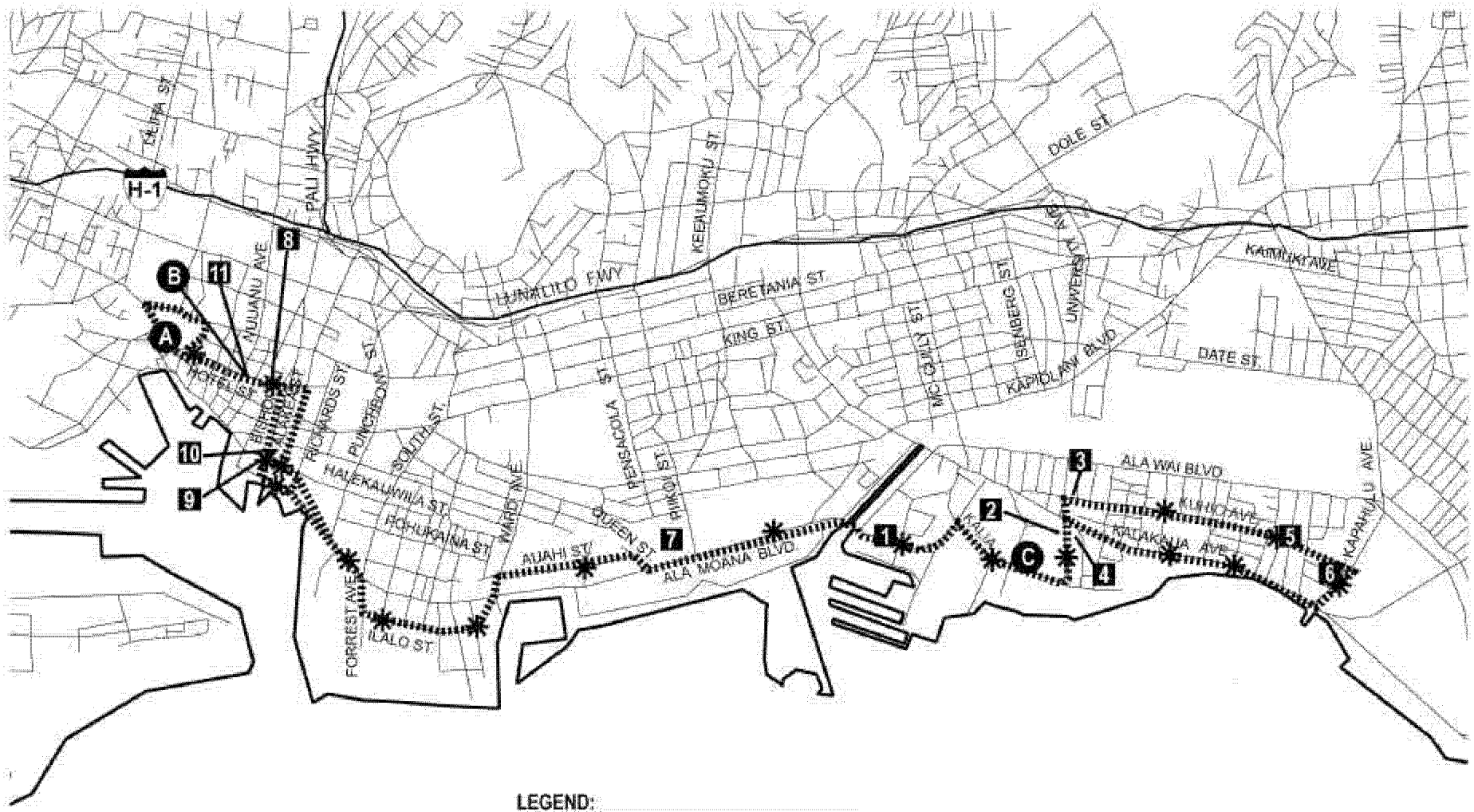
Receiver Location	Land Use Category[1]	Address	Ldn/Leq[2]
LONG-TERM 24-HOUR SITES			
1	FTA 2	Apartment Building, 1720 Ala Moana	77/75
2	FTA 2	Saratoga Road at Post Office	66/63
3	FTA 2	Apartments on Kuhio Avenue between Launiu & Kaiolu Streets	76/78
4	FTA 2	Outrigger Waikiki Islander Hotel	70/76
5	FTA 2	Waikiki Banyan Hotel	72/72
6	FTA 2	Queen Kapiolani Hotel on Kapahulu at Cartwright Road	70/68
7	FTA 2	Apartment Building at 1350 Ala Moana Boulevard	73/71
8	FTA 2	Executive Centre at Hotel and Bishop Streets	77/77
9	FTA 2	Harbor Square Condominiums – Ala Moana Boulevard side	76/74
10	FTA 2	Harbor Square Condominiums – Alakea Street side	73/71
11	FTA 2	Chinatown Gateway Apartments	73/72
SHORT-TERM 15-MINUTE SITES			**Leq**
A	FTA 3	Aala Park on King Street	68
B	FTA 3	Chinatown Gateway Park at Hotel and Bethel Streets	73
C	FTA 3	Fort DeRussy, on mauka side of Kalia Road	66

Source: Parsons Brinckerhoff, Inc. September 2002.

Notes: [1] Land use category descriptors:
FTA Category 2 = Residences and other buildings where people sleep, such as hotels, apartments and hospitals.
FTA Category 3 = Institutional land uses with primarily daytime and evening use, including schools, libraries and churches.
[2] Ldn is used for land uses with nighttime noise sensitivity and for residential areas where FTA rather than FHWA noise procedures are applicable. Peak-hour Leq is used for commercial, industrial, and other land uses that do not have nighttime noise sensitivity.

Under the IOS condition in 2006, no adverse noise impacts are expected, with noise impacts at the analyzed locations likely being the same or potentially slightly lower than existing conditions.

The rubber-tired hybrid diesel-electric buses used for the IOS are not expected to cause ground vibration levels that would exceed the FTA criterion of 72 VdB for residential buildings and other structures where people normally sleep. There is no known land use along the alignment that has vibration-sensitive equipment and would be subject to lower vibration impact criteria.



LEGEND:

●	15 - Minute Noise Monitoring Sites
■	24 - Hour Noise Monitoring Sites
▪▪▪▪	IOS Route
✳	Transit Stop

SOURCES:
Parsons Brinckerhoff Quade & Douglas, Inc., 2002; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998.

Scale: 0 .25 .50 mi

Noise Monitoring Sites located along the IOS of the Refined LPA

Figure IOS.5-1

IOS.5.7 Ecosystems

IOS.5.7.1 Faunal Species

The habitat within the IOS corridor is highly modified and used mostly by introduced wildlife species that are highly adaptable to urban conditions. Surface waters within the IOS area, such as Nuuanu Stream and the Ala Wai Canal, are highly modified and are of relatively poor ecological quality. These surface waters provide habitat for introduced and indigenous fish, as well as migrating shorebirds. There is no unique or special habitat within the IOS corridor.

The IOS area (Downtown Honolulu to Waikiki) is not known to be used by threatened or endangered animal species, with the exception of white terns (*Gygis alba*). White terns are a State of Hawaii designated endangered species on Oahu, which use Kapiolani Park and Fort DeRussy as habitat, among other areas. The DTS has conducted interagency coordination with the State Department of Land and Natural Resources Division of Forestry and Wildlife and the U.S. Fish and Wildlife Service (USFWS). White terns are well adapted to urban environments, and the IOS is not expected to cause adverse interactions with this species, including its eggs, which are laid on bare tree branches. Nevertheless, a survey of the IOS corridor will be conducted for white terns and their eggs prior to completing final design. If sensitive trees or areas are identified, they will be monitored immediately prior to and/or during construction. If affected trees are relocated or trimmed (see Section 5.7.2), monitoring will be coordinated with the USFWS, and the City's Department of Parks and Recreation will be consulted because they have standard procedures to avoid impacts to white terns and their eggs.

The USFWS also noted other federal trust species, including the Hawaiian hoary bat (*Lasiurus cinereus semotus*), four species of Hawaiian waterbirds (coot, duck, moorhen and stilt), and the Oahu elepaio (*Chaoiempis sandwichensis ibidis)*, that are known to exist on Oahu. However, none of these species are expected to use the highly urban environment of the IOS corridor regularly, although sporadic sightings may occur.

IOS.5.7.2 Botanical Resources

The vegetation within the IOS corridor consists mostly of maintained plantings, such as landscaping on roadway medians and shoulders and adjacent properties. Some of the roadway landscaping includes trees and shrubs. Construction of the IOS transit stops and semi-exclusive and exclusive transit lanes will displace some of the corridor's landscaping, which will require the relocation or removal of trees. A total of 47 trees will be affected by implementation of the IOS. Nine of these trees are considered "notable", which is defined as a tree deemed to be important to the urban landscape character. A notable tree may be an individual tree or part of a group of trees that together comprise a recognized and important element of the visual landscape. The nine notable trees include a cluster of Date (*Phoenix dactylatra*) and Royal Palms (*Roystonea regia*) on Saratoga Road (healthy palms only) and banyans (*Ficus spp.*) on Kalia Road.

Measures to mitigate impacts to corridor landscaping will consist of re-vegetation and landscape redesign along the alignment where possible. All 47 trees affected by the IOS will be relocated on-site or replaced as part of the tree preservation program.

IOS.5.8 Water

IOS.5.8.1 Surface Water

In addition to the Pacific Ocean, the IOS will be in proximity to the following surface water bodies:

- Nuuanu Stream
- Honolulu Harbor
- Kewalo Basin
- Ala Wai Canal and Boat Harbor

These water bodies are listed by HDOH as "Water Quality-Limited Segments," in accordance with the Clean Water Act Section 305(b) and defined by 40 CFR 130.8. Water Quality-Limited Segments are water bodies having pollutants in excess of the established water quality standards, such that they cannot reasonably be expected to attain or maintain State water quality standards without additional action to control sources of pollution. Additional impervious surfaces, like roadway pavement, may increase the amount of storm water runoff that discharge contaminants such as oil and grease into surface waters. However, new or widened pavement constructed as part of the IOS will be located within existing street rights-of-way, with the exception of Kalia Road in Fort DeRussy. Although Kalia Road will be widened to provide transit lanes, the incremental increase in impervious surface resulting from this and other aspects of the IOS will be minute in comparison to the total existing drainage area and pollutant loading of storm water systems and surface waterways in Honolulu's urban core. Therefore, surface water quality will not be significantly affected by the increase in impervious surfaces with the IOS.

IOS.5.8.2 Groundwater

The Southern Oahu Basal Aquifer (SOBA) is the island's principal freshwater aquifer, underlying all of southern Oahu. The SOBA occurs as a basal freshwater lens floating on saline groundwater. It is recharged by rainfall in mauka areas of Honolulu and the Leeward Coast. Caprock, which is less permeable than water-bearing lava flows near the Koolau Range, provides a barrier that retards the seaward flow of groundwater. Water in the caprock is brackish and not potable. The caprock layer thins with distance from the shoreline and ends at varying distances inland, and the basalt layer is exposed or underlies surficial materials. As a consequence, inland areas of central Honolulu have the highest water tables in southern Oahu.

In accordance with the 1984 Sole Source Aquifer Memorandum of Understanding between the Federal Highway Administration (FHWA) and the EPA, a Ground Water Impact Assessment was prepared for the overall Primary Corridor Transportation Project (Refined LPA) for the purpose of meeting coordination requirements of Section 1424(e) of the Safe Drinking Water Act. The assessment found that the Refined LPA would cause no long-term impacts on groundwater quality, quantity, or flow characteristics. Similarly, the IOS is not expected to cause impacts to groundwater resources.

IOS.5.8.3 Floodplains

Flood Insurance Rate Maps (FIRMs) indicate several areas along the IOS alignment falling within the 100- or 500-year base floodplains, such as Ala Moana Regional Park, Ala Moana Center, and portions of Waikiki.

Although portions of the IOS alignment are within floodplains, development of the system will largely be limited to areas within or near existing roadways and do not involve the types of changes that would affect floodplains or the potential for flooding. In other words, implementation of the project will result in only minimal encroachment on the floodplain and no changes to existing flood elevation levels, nor will it increase the risk of floods. Therefore, the project is in compliance with U.S. DOT Order 5650.2 on Floodplain Management and Protection. Any required construction will comply with the rules and regulations of the National Flood Insurance Program (NFIP) and all applicable ordinances for flood hazard districts, as stated in the City and County of Honolulu's Land Use Ordinance.

IOS.5.8.4 Wetlands

There appears to be no wetlands along the IOS alignment because the system traverses a highly urbanized environment. Streams occurring in the corridor are hardened, and the IOS will operate along existing roadways. Therefore, the IOS is not expected to cause wetland impacts.

IOS.5.8.5 Navigable Waters and Water Recreation

Waters subject to tidal influence are generally defined as navigable. Further, navigability is defined by usage, such that non-tidal streams carrying commercial traffic are deemed navigable. The navigable waters in the IOS corridor include Nuuanu Stream and Ala Wai Canal. The Ala Wai Canal is heavily used for recreational canoeing and kayaking. The IOS will not in any way restrict navigation activities, because transit lanes and stops will operate along existing roadways.

IOS.5.9 Energy

Although the per unit energy requirements of a transit vehicle, such as the hybrid diesel-electric transit bus to be used for the IOS, are greater than an individual passenger vehicle, the greater passenger capacity of these vehicles makes them more energy efficient per person. In addition, hybrid diesel-electric transit buses are generally more energy efficient than conventional diesel buses because their engines are smaller and they operate at constant revolutions per minute. Therefore, the IOS is not projected to result in an adverse impact on energy resources.

IOS.5.10 Historic and Archaeological Resources

Section 106 of the National Historic Preservation Act requires that actions that are federally funded, authorized or carried out to take into account the effect of such actions on any district, site, building, structure or object that is included in or eligible for inclusion in the National Register of Historic Places (NRHP). Such resources are called "historic properties." Section 106 requires coordination and consultation with the State Historic Preservation Officer (SHPO) and with other agencies and organizations that may have an interest in or is mandated to protect historic properties. HRS Chapter 6E places similar responsibilities on State agencies to evaluate their projects. Since the project involves both federal and State agencies, both HRS Chapter 6E and Section 106 apply to the project.

The Section 106 and Chapter 6E processes consist of: (1) identification of historic properties in the Area of Potential Effect (APE); (2) assessment of potential project "effects" on the historic properties in the APE, and, (3) if necessary, mitigation of adverse impacts.

The project's APE was limited to affected streets and areas of new right-of-way. If structures were involved, such as transit stops, the APE was extended to the new right-of-way or those properties immediately adjacent to the structure. However, what is meant by adjacent can vary depending on the property. In a letter dated March 8, 2000, the SHPO concurred with the project's APE definition (see Appendix A).
The "effect" of the project on historic or archaeological resources must be determined by the federal agency proposing or regulating the project. There are three possible "effect" findings:

- No historic properties affected;
- No adverse effect; or
- Adverse effect.

The FTA has determined that the IOS will adversely affect some historic-period resources.

IOS.5.10.1 Archaeological Resources

The IOS corridor is a highly urban environment, with ground conditions consisting of fill and topsoil that has already been highly disturbed by development. Therefore, it is highly unlikely that the IOS corridor contains archaeological resources, such as archaeological and cultural remains, artifacts or sites, and burial sites at or near the ground surface. However, subsurface archaeological resources have been discovered in the Fort DeRussy area and along Kalakaua Avenue in Waikiki. While some of these discoveries were unexpected, the soil conditions suggest the possibility for the discovery of burial sites. The construction of IOS transit lanes and stops will excavate to much less depths than previous construction activities.

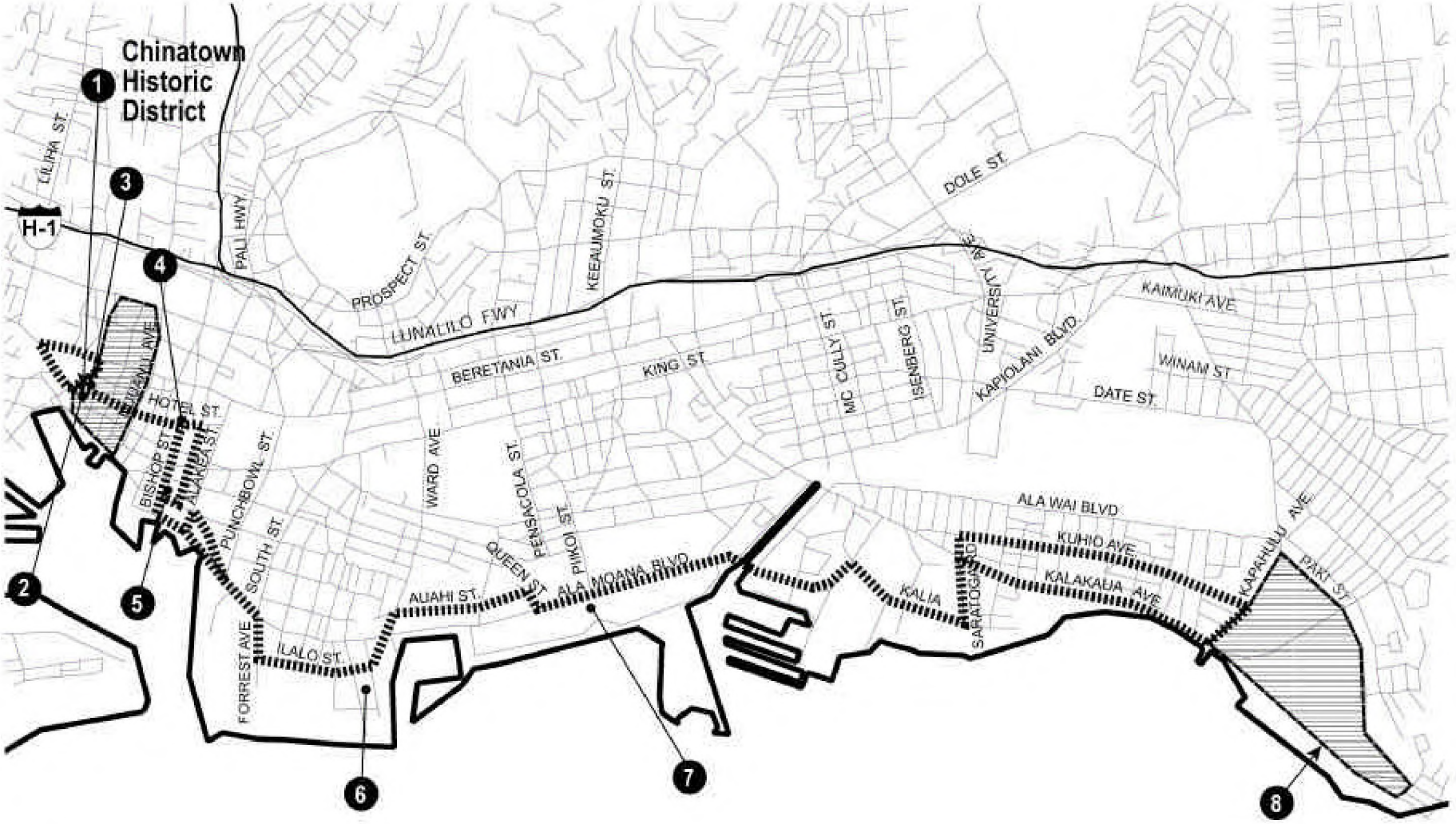
In the unlikely event that a burial or archaeological artifact is uncovered during construction, work will stop and the State Historic Preservation Division (SHPD) will be notified immediately. Should a burial site be found during construction, specific legal procedures and cultural practices will be followed, such as involvement by the Oahu Island Burial Council. Construction would resume upon approval by appropriate authorities.

IOS.5.10.2 Historic-Period Resources

Historic-period resources are historic or potentially historic buildings, structures or objects constructed or erected after western contact, including historic districts. Table IOS.5-4 lists the historic-period resources within the APE of the IOS (also see Figure IOS.5-2). The FTA, through the DTS, has had extensive ongoing coordination with SHPD and they have jointly determined that, except for the temporary removal of some lava rock curbs during construction, the IOS will have "no adverse effect" on many of the resources in the APE because they will not be affected by right-of- way acquisition, nor will they be affected by being in proximity to transit stops. Discussion of these historic-period resources, and why they will not be adversely affected by the IOS project is provided below:

- The FTA, through DTS, rendered an "adverse effect" determination in July 2002 regarding Chinatown (State Site 80-14-9986), which included its historic sidewalk features, because of the proposed development of the Chinatown BRT transit stop. However, there will be no construction work at the Chinatown stop that is part of the IOS. Therefore, the IOS will not have an adverse effect on Chinatown, its historic sidewalk features, or two nearby Chinatown buildings (see Table IOS.5-4), the Lung Doo Benevolent Society and Yew Char Buildings.
- The Union Mall (Ewa Bound) Transit Stop will be located next to the Portland Building. However, the building will not be affected. The IOS will use the existing bus stop at Union Mall, which has sheltered benches. Therefore, the stop was evaluated as having "no adverse effect" on the Portland Building.
- The Bishop Transit Stop will be located across the street from the Dillingham Transportation Building. Since the transit stop will be located on the opposite sidewalk from the historic structure, fronting the Topa Financial Center, a "no adverse effect" determination was rendered.
- The Ala Moana Park Transit Stop will be on the existing sidewalk next to Ala Moana Park (State Site 80-14-1388). However, there will be no construction work at the Ala Moana Park stop that is part of the IOS.
- The proposed Kapahulu Transit Stop will be located within the roadway right-of-way mauka of the Honolulu Zoo parking lot driveway across from Lemon Road. The stop will be adjacent to the historic Kapiolani Park (State Site 80-14-9758), with the backdrop of the transit stop being the landscaped zoo parking lot. The FTA rendered a "no adverse effect" determination because the transit stop would not detract from the visual value or integrity of the park proper, and will not affect the park.

The FTA has determined that the Alakea and Saratoga Transit Stops will "adversely affect" lava rock curbs, which are considered "historic" by the SHPD, because they will be temporarily removed during construction.



SOURCES:
ESRI Atlas GIS v4.0 1998, Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998; Mason Architects Inc., May 1999.

* Numbers correspond to Historic-Period Resources listed on Table IOS.5-4

LEGEND:

IOS Route

N

Scale: 0 .25 .50 mi

Historic-Period Resources in the Area of Potential Effect of the IOS of the Refined LPA

Figure IOS.5-2

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To mitigate long-term impacts, the DTS will reuse the lava rock curb material in the design of the two IOS affected transit stops.

TABLE IOS.5-4
EFFECT DETERMINATION ON HISTORIC PERIOD RESOURCES WITHIN APE OF IOS

Location	Loc. No.	Resource	FTA/DTS Determination
Chinatown Transit Stop	1	Chinatown Historic District	No Adverse Effect[1]
	2	--Lung Doo Benevolent Society*	No Adverse Effect
	3	--Yew Char Building*	No Adverse Effect
	NA	--Hotel Street Sidewalk Features	No Adverse Effect[1]
Union Mall Transit Stop	4	Portland Building	No Adverse Effect
Bishop Transit Stop	5	Dillingham Transportation Building	No Adverse Effect
Ala Moana Park Transit Stop	6	Ala Moana Park	No Adverse Effect
Kapahulu Transit Stop	7	Kapiolani Park	No Adverse Effect[2]
Historic Sidewalk and Curb Elements			
Alakea Transit Stop	NA	Lava curbs: Alakea Street between Queen Street and Nimitz Highway	Adverse Effect
Saratoga Transit Stop	NA	Lava curbs: Saratoga Road, Ewa sidewalk	Adverse Effect

Source: Federal Transit Administration (FTA), through the City and County of Honolulu, Department of Transportation Services, July 2002.

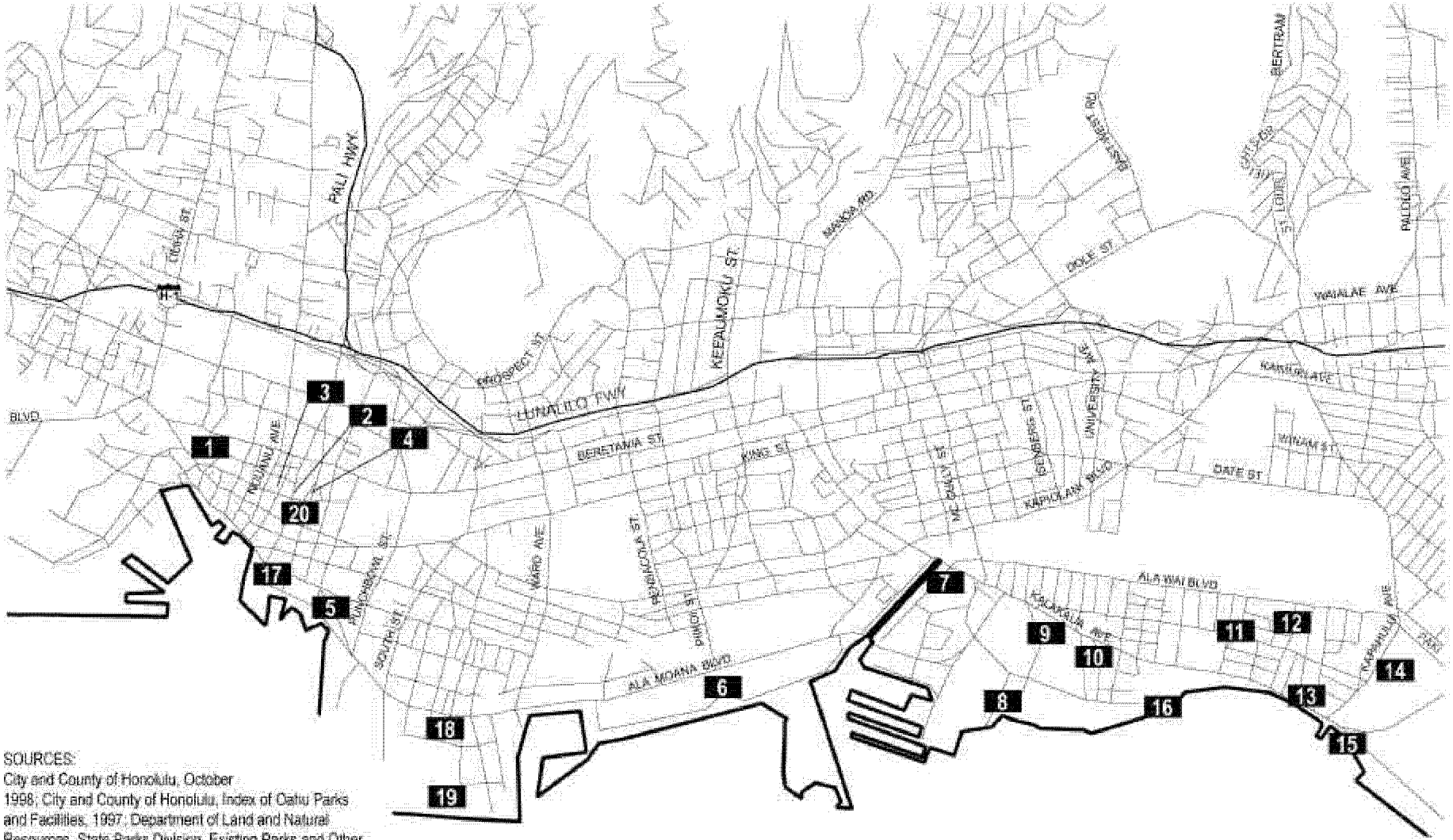
Notes: * Preliminary identification as a historic resource based on consultation with the SHPD.
[1] An "adverse effect" determination was rendered in July 2002. However, this was based on the Chinatown BRT transit stop of the Refined LPA. As stated in Section IOS 1.2, this transit stop will not be developed for the IOS.
[2] The July 2002 effect determination rendered an "adverse effect" on Kapiolani Park, but due to the relocation of the Kapahulu Transit Stop, it was changed to a "no adverse effect".

IOS.5.10.3 Traditional Cultural Properties

Traditional cultural properties (TCPs), like archaeological and historic-period resources, is another category of historic properties that is afforded protection under Section 106. Some of the identified TCPs in the study area are from the many ethnicities and cultures of Hawaii that have adapted to the urbanized environment of Honolulu. The TCPs within the IOS APE are Chinatown and burial sites. Potential impacts to Chinatown and proposed mitigation measures are discussed in Section IOS.5.10.2. Potential impacts to burial sites and proposed mitigation measures are discussed in Section IOS.5.10.1.

IOS.5.11 Parklands

A number of park and recreational facilities are located within the IOS corridor (see Table IOS.5-5 and Figure IOS.5-3). In general, the IOS will enhance the value of the park and recreational resources in the study area by improving their accessibility for transit users. In addition, the IOS will not require land from or cause proximity impacts to any of these park or recreational resources. However, the transit stops adjacent to Ala Moana Park, Kapiolani Park and Kuhio Beach Park have the potential to adversely affect the aesthetic characteristics of these parks, even though these transit stops will not use park property. Therefore, as discussed in Section IOS.5.4, these transit stops will require special architectural design treatment.



SOURCES:
City and County of Honolulu, October 1998; City and County of Honolulu, Index of Oahu Parks and Facilities, 1997; Department of Land and Natural Resources, State Parks Division, Existing Parks and Other Areas, 1998; Bryan's Sectional Map, Oahu 1999; Tax Map Key, Oahu Street and Condominium Map Book, 1998 12th Edition.

* Parklands' location/description can be found on Table IOS.5-5.

Scale: 0 .50 1 mi

Parkland Resources Nearby the IOS of the Refined LPA

Figure IOS.5-3

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TABLE IOS.5-5
PARKLAND RESOURCES ADJACENT TO INITIAL OPERATING SEGMENT

Map Key	Park	Street	Total Area (in acres)	Classification	Jurisdiction
1	Aala Park	North King Street	6.69	Urban Park	City and County
2	Fort Street Mall	Fort Street	0.87	Mall	City and County
3	Chinatown Gateway Park	Bethel Street	0.40	Urban Park	City and County
4	Union Street Mall	Between Hotel and Bishop Streets	0.36	Mall	City and County
5	Open space adjacent to federal building	Ala Moana Boulevard and Halekauwila Street	N/A	Urban Park	United States
6	Ala Moana Regional Park, including Aina Moana Recreation Area (Magic Island)	Ala Moana Boulevard	119.18	Regional Park	City and County
7	Ala Wai Promenade	Kalakaua Avenue	4.43	Urban Park	City and County
8	Duke Paoa Kahanamoku Beach Park	Paoa Place	0.43	Beach Park	City and County
9	King Kalakaua Park (formerly Waikiki Gateway)	Kalakaua Avenue	0.57	Urban Park	City and County
10	Beachwalk Triangle	Beachwalk and Kalakaua Ave.	0.15	Urban Park	City and County
11	Princess Kaiulani Triangle	Kaiulani and Kuhio Avenues	0.12	Urban Park	City and County
12	Kuhio Avenue Mini Park	Kuhio Avenue	0.12	Mini Park	City and County
13	Kuhio Beach Park	Kalakaua Avenue	3.40	Beach Park	City and County
14	Kapiolani Regional Park (includes Honolulu Zoo)	Kapahulu and Kalakaua Avenues	154.73	Regional Park	City and County
15	Kapiolani Beach Park	Kalakaua Avenue	12.09	Beach Park	City and County
16	Waikiki Beach	Kalakaua Avenue	N/A	Various	Various (City, State, and Private)
17	Irwin Memorial Park	Aloha Tower Drive	0.7	Urban Park	State of Hawaii
18	Kakaako Makai Gateway Park	Ilalo Street	6	Community Park	State of Hawaii
19	Kakaako Waterfront Park	Kelikoi Street	30	State Park	State of Hawaii
20	Tamarind Park	Bishop/King Streets	N/A	Urban Park	Private

Sources: Parsons Brinckerhoff Inc., Initial Field Survey 1989, Update January 1992; City and County of Honolulu Department of Parks and Recreation, Index of Oahu Parks and Facilities, 1997; DLNR, State Parks Division, Existing State Parks and Other Areas, 1998, Agency Interviews, December 1999.

Notes: Map key refers to numbers on Figure IOS.5-3.

IOS.5.12 Construction Impacts

This section presents an assessment of the temporary impacts of construction of the IOS and mitigation measures related to those impacts. Most of the IOS will be placed within the same rights-of-way as the existing surface roadway system, which must remain operational throughout construction. The IOS is being planned, designed and scheduled to meet this challenge with minimal disruption. However, some impacts on the environment, nearby facilities, and established patterns of activity are inevitable. These impacts will be temporary, and their severity will depend largely on the type of construction methods employed, how it will be carried out, and what controls are exercised.

IOS.5.12.1 Transportation and Circulation

The Construction Management Program for the IOS will include development of a "Maintenance of Traffic Plan". This plan, which will be reviewed and approved by the City Department of Planning and Permitting (DPP), will include systemwide as well as subarea consideration of the most important traffic and transportation issues and mitigation measures. A community advocacy firm will be selected to assist in communicating details of the plan to the public. Specifically, the plan will include:

- Overall maintenance of traffic and transportation goals, project commitments, and identification of key project elements which have been specifically designed to meet maintenance of traffic objectives;
- An areawide maintenance of traffic program to maintain mobility and accessibility and to address project-wide issues such as parking, commuter transportation systems and traffic system management;
- Project subarea maintenance of traffic measures focused on the specific detours, disruptions, problems, and issues expected in each subarea during each stage of construction;
- Coordination program for continued development of the Maintenance of Traffic Plan, including provisions for interaction with public agencies, local communities and the private sector; and
- Procedures for finalizing, monitoring, and implementing the Maintenance of Traffic Plan during construction, as a part of the Construction Management Program.

The Plan will include such policies as:

- Construction activities which would close traffic lanes will be restricted to off-peak hours;
- Construction activities will be phased so as to minimize traffic impacts to any one area;
- During final design, detailed Work Zone Traffic Control Plans, which will include detour plans, will be formulated in cooperation with affected neighborhoods;
- Existing bus service will be maintained, as well as vehicle and pedestrian movements;
- No designated major or secondary highway will be completely closed to vehicular or pedestrian traffic. No local street or alley will be completely closed, preventing vehicular or pedestrian access to residences, businesses or other establishments; and
- An extensive public information program will be implemented which will provide motorists, residents and businesses with information on the location and duration of construction activities, and anticipated traffic conditions.

Truck traffic will be using existing routes except near construction areas. Signage and traffic cones will be provided to re-route truck traffic around construction zones where necessary.

Bus routes and stops will be maintained, although buses may be re-routed over temporary detours and bus stops may be temporarily relocated. Moreover, public transportation facilities and services will be expanded during project construction as part of the Maintenance of Traffic Plan.

Bicycle routes will be included in the re-routing of surface transportation systems. Signage will be provided to re-route established bicycle facilities around construction zones.

Local access to residences and businesses will be maintained during the construction work. Pedestrian movements will be maintained, but may be temporarily relocated to provide safe passage through work areas. Alternative pedestrian routes, including attractive, well-lighted, safe walkways, will be provided around or through construction areas.

Measures to minimize the impact of loss of parking during construction will be implemented, including temporary parking facilities, staging of construction to minimize parking loss, and remote parking for project construction workers.

In most cases, the nature of the construction for the IOS will not require street closures or detours because much of the work will occur in the curb lanes of the roadway, allowing vehicles to pass the construction zone using the remaining lanes. Although there will be localized lane reductions in the construction area, curb parking will be temporarily and/or permanently eliminated in many places, so that traffic flow using the remaining lanes will be maintained under most situations. Some presently allowed turning movements may need to be restricted when construction is occurring within an intersection.

The IOS will create truck traffic associated with the transport of construction materials and wastes. Times and routes of construction vehicles will be planned as part of the development of the Maintenance of Traffic Plan. Planning will occur with the intent of minimizing the effect of construction traffic.

IOS.5.12.2 Displacements, Relocation and Restricted Access for Existing Uses

No permanent displacements and relocations will be necessary for the IOS. The discussion in this section is limited to only those areas that will be needed temporarily during construction.

The IOS will require temporary areas for construction staging. There are a number of vacant sites along the IOS alignment that could serve as construction staging areas.

IOS.5.12.3 Neighborhoods and Businesses

Adverse impacts to neighborhoods and businesses near construction sites will be related primarily to disruptions of local transportation and circulation patterns, and air and noise emissions caused by construction vehicles and equipment, and vehicles delayed by construction. Air quality and noise impacts during construction and proposed mitigation measures are discussed in Sections IOS.5.12.4 and IOS.5.12.5.

Although a maintenance of traffic plan will be prepared and implemented, construction of the IOS will cause motorists, bicyclists and pedestrians to experience delay and inconvenience when traveling on affected streets undergoing construction activities. Bus routes on or crossing affected streets will generally be maintained throughout the construction period, but they may be routed over localized, temporary detours, and bus stops may be temporarily relocated.

Local access to residences, businesses, and nearby parks, such as Kakaako Waterfront Park and Ala Moana Park, will be maintained when construction is conducted on adjacent roadways. However, travel to and from these destinations may be delayed as a result of increased congestion levels. Pedestrian movements will be maintained, but may be temporarily relocated to provide safe passage through work areas.

Even with an effective maintenance of traffic plan, construction-related traffic disruptions will cause inconveniences to residents living near construction sites, and may cause certain businesses to lose revenue, especially those that rely on drive-by customers. These types of businesses include fast-food restaurants and convenience stores. Construction on a particular street could cause some motorists to choose alternate routes, bypassing those businesses along affected streets.

IOS.5.12.4 Air Quality

Contractors will be required to comply with all applicable air quality laws to limit adverse effects on air quality from demolition, clearing, material processing and construction activities, as well as from construction vehicles.

Construction will cause emissions of fugitive dust, airborne particulate matter of relatively large size. Fugitive dust will be generated by particulate matter being kicked up by such activities as excavation, demolition, clearing, stockpiling, hauling, vehicle movement, and dirt tracking onto paved surfaces at access points. Fugitive dust also will be generated from the material processing and storage that will occur at the stockpile areas associated with recycling usable portions of excavated material.

To minimize the amount of construction-generated fugitive dust, the following measures will be followed:

- minimize land disturbance;
- apply water or other environmentally acceptable material to control dust generation;
- cover trucks when hauling dirt or other dust-generating materials;
- stabilize the surface of dirt piles if not removed immediately or other material storage areas;
- use windbreaks;
- limit vehicular paths and stabilize temporary roads;
- pave all unpaved construction roads and parking areas to road grade for a length no less than 50 feet where such roads and parking areas exit the construction site;
- use dust suppressants on traveled paths that are not paved;
- apply dust control and suppression techniques to the material processing activities at the stockpile sites;
- remove unused material and dirt piles when they are no longer needed; and
- revegetate areas where existing landscaping was removed for construction.

As discussed in Section IOS.5.5, carbon monoxide (CO) is the principal pollutant of concern in localized areas. Since emissions of CO from motor vehicles increase with decreasing vehicle speed, disruption of traffic during construction could result in short-term elevated concentrations of CO. To minimize CO emissions, efforts will be made during construction to limit disruptions to traffic through prior planning of alternate routing, traffic control, and public notices, especially during peak travel periods.

IOS.5.12.5 Noise and Vibration

Noise generated from construction of the IOS could adversely affect nearby residences, schools, office buildings, and other noise-sensitive activities.

To minimize the level of impact, a specification for noise and vibration limits from construction activities will be developed and enforced. The specification will be submitted to the Hawaii Department of Health (HDOH) for their review. An industrial hygienist will monitor compliance with the specification during construction through on-site noise and vibration monitoring during various stages of construction.

The HDOH also has Community Noise Control requirements, which apply to construction noise. The project cannot exceed the noise levels stipulated by these standards unless a Noise Permit and/or Variance is

granted by HDOH. Variances are only granted if they are in the public interest and the construction noise would not substantially endanger human health and safety.

The Construction Management Program for the IOS will explicitly address the minimization of noise levels generated during construction, and will include the following mitigation measures:

- Design Considerations: during the early stages of Construction Management Plan development, limits on the deployment of noisy equipment will be considered. For example, no stationary equipment will be located near schools or hospitals;
- Sequence of Operations: noisy operations will be scheduled to occur at the same time (as opposed to being spread throughout the day), and, as feasible, noisy operations will be scheduled to occur when schools are not in session or other noise sensitive activities are not occurring;
- Noise barriers will be employed where feasible;
- Source Control: many types of noise emissions can be controlled at the source and in such cases, noise reduction systems will be employed. For example, noise reducing muffler systems lower exhaust noise by at least 10 dBA; and
- Time and Activity Constraints: as much as possible, noisier activities will be limited to daytime hours.

Vibration levels at adjacent structures will be monitored and the structures protected from vibration impacts, as necessary.

IOS.5.12.6 Water Quality

During construction of the IOS, impacts to surface and groundwater resources potentially could occur. Impacts to surface water would be associated with point and non-point source stormwater discharges and dewatering discharges. These discharges could contain particulate (sediment) and chemical contaminants. Potential sediment sources include unstabilized, exposed soil at excavations; drainage from material stockpiles; discharges from haul trucks; and dewatering activities.

Sediment and Erosion Control

Erosion and sediment discharges will be minimized through the application of Best Management Practices (BMPs) techniques designed to minimize erosion and capture sediment prior to discharge. Examples of BMPs include:

- use of chemical crusting agents or other stockpile coverings;
- planting of vegetation and/or mulching on highly erodible or critically eroding areas;
- temporary landscaping;
- use of silt fences;
- use of sediment control traps,
- use of straw bale filters;
- use of inlet system sediment control traps;
- installation of debris basins;
- use of stilling basins to reduce the levels of sediments and other pollutants entering surface and coastal waters;
- construction of dikes or diversions to avoid runoff across erodible areas; and

- monitoring of sediment discharge.

Together, the BMPs will effectively minimize the potential for water quality impacts or off-site impacts from eroded material. Important BMPs will include maintenance of the sediment and erosion control systems, an ongoing monitoring program to determine the effectiveness of the BMPs, and adjusting the sediment and erosion control program as required.

Details of the BMPs will be developed during final design of the IOS and detailed erosion and sediment control plans will be included in the final construction plans for the IOS. Through the agency reviews conducted as part of the permit process, the use of proper sediment control techniques will be assured.

Studies at specific locations to identify potential chemical contaminants in dewatering and stormwater discharges and stockpile drainage will be performed during final design of the IOS, and appropriate treatment measures will be employed based on the character of the discharge and the water quality standards of the receiving water body.

Spills associated with construction activities pose a potential threat to water resources. Development of a Spill Containment Control and Countermeasure Plan, including maintenance of clean-up equipment on-site, along with detailed spill prevention measures, will mitigate the impact of inadvertent releases.

Dewatering Discharges

Construction along Ala Moana Boulevard will likely encounter groundwater during excavation operations. The groundwater will need to be removed during construction (dewatering), and groundwater disposal will have to be considered. Such dewatering will be temporary, limited to the time required for excavation and construction.

The water removed from excavations must be returned to the groundwater system, added to the stormwater drainage system or discharged to adjacent surface waters. The groundwater could contain suspended sediment and possibly chemical contaminants, and could adversely affect the water quality of receiving surface water bodies by increasing their turbidity and sedimentation rates.

Any dewatering discharge will require a dewatering permit that could only be obtained after designing an appropriate treatment process to ensure that the discharge meets water quality standards. For example, sediment will be removed prior to discharge through a sedimentation or filtering system. A monitoring program will assure compliance with water quality standards.

The project area is underlain by the Southern Oahu Basal Aquifer (SOBA). Mitigation measures will be implemented during construction to ensure that no sedimentation or chemical quality effects on the aquifer will occur.

Construction Equipment Use and Maintenance

Since many of the proposed improvements will be built using poured-in-place concrete construction, large amounts of concrete will be transported to the construction site. Each time concrete is transported, residue remaining in the concrete truck must be washed out before it hardens. This wastewater contains fine particles and could cause sedimentation and turbidity if discharged to surface waters.

Concrete trucks will be washed out in accordance with procedures to ensure that water quality standards are not violated. Project specifications will prohibit the washing out of concrete trucks at the project site, or a

filtration or settling system will be constructed to prevent fine material from being discharged into surface waters.

The use and maintenance of construction equipment can pose a threat to surface and ground waters. Potential spills associated with vehicle maintenance, such as changing oil and refueling equipment, can introduce new contaminants into the environment at the construction staging area. The servicing and maintenance of construction equipment will be restricted to the base yards of the mobile equipment. At these vehicle maintenance areas, strict enforcement of BMPs will be required. Clean up equipment will be maintained on site and clean up response plans will contain detailed spill response measures.

IOS.5.12.7 Ecosystems

Wildlife habitat is very limited along the IOS alignment and construction of the IOS will have no major effect on the characteristics or size of populations of the resident wildlife species in the area.

The IOS will cross streams in the study area on existing structures (bridges). The IOS will not require new or reconstructed bridge piers within the streams.

Every precaution possible will be taken during construction to protect street trees. The tree impacts of the IOS are described in Section IOS.5.7. The construction impacts will consist of permanent removals and/or relocations of trees that are not compatible with the road widening of Kalia Road. Mitigation is addressed in Section IOS.5.7 and will be described in detail in the tree preservation plan to be developed with a qualified certified arborist. A qualified certified arborist will also prepare a tree protection plan to be used during construction. The plan will specify precautionary measures to be taken to protect trees that are being relocated, as well as measures to protect other nearby trees during construction. Community input will be a component in preparing the tree protection plan. Construction mitigation measures will include tree protection zones that will be observed, except in cases where earthwork at or near the base of a tree is necessary, construction watering of trees, and prohibiting construction vehicles from being parked under trees to avoid soil compaction. A Street Tree Review will also be conducted by the DPP as part of the construction plan review by the City. The DPP's Street Tree Review applies only to those trees not located within a Special Design District.

IOS.5.12.8 Solid and Hazardous Wastes

1) Solid Waste

The volumes of solid waste that will be generated by the IOS is not anticipated to be beyond the ability of existing landfills to handle. Coordination will be conducted with the DPP for a grubbing, grading, and stockpiling permit. Waste generated by grubbing of the sites and all wastes generated during construction will be disposed of properly.

2) Contaminated Materials

Since the IOS will involve construction within existing roadway rights-of-way, no contaminated soils or other materials are expected to be encountered. If this turns out not to be the case, construction will be halted in the suspect area, appropriate sampling and testing performed, and a detailed mitigation plan prepared and approved before construction resumes.

The selection of mitigation measures would consider avoidance of exposure, minimizing impacts through redesign, and remediation. The need for and type of mitigation measures that would be required would depend on the nature of the contamination, the construction methods and the development plans (i.e. where

structures and pavements will be located). The information collected during additional evaluations would be used to define the impacts and develop appropriate measures to minimize or eliminate any adverse impacts from site contamination.

In addition, issues relating to worker health and safety are required to be considered during construction because the health and safety of on-site personnel could be affected if they are exposed to contaminants. Any site remediation would be performed in accordance with applicable State and federal laws. Monitoring and remediation plans, if required, would be designed in coordination with the HDOH and other agencies, and the plans would be implemented prior to resuming construction.

IOS.5.12.9 Utility Service

The IOS will affect few major utilities but many minor ones. Substantial planning will occur so that interruptions in utility service to customers are minimized. Coordination with utility providers during final design and construction will identify problems and provide opportunities to resolve them prior to construction. Replacement and/or relocation of utilities will be closely coordinated with roadwork and construction of the BRT stops to minimize disruption to adjacent properties and traffic. Disruptions to utility service, if necessary, will be restricted to short-term localized events. Careful scheduling of these disruptions and prior notification of adjacent properties that would be affected by temporary service cut-off will mitigate some of the utility relocation impacts.

Many of the utilities that are to be buried underground or moved to another underground location could be relocated simultaneously with existing utilities to minimize the need for multiple excavations. As much as possible, relocated utilities will be buried together or coordinated with infrastructure improvements already planned by the City or other agencies.

A preliminary review of the IOS alignment and stops in relation to siren locations for the Civil Defense Warning System indicates that no significant impact will occur. If sirens need to be relocated as a result of the project, they will remain in the same vicinity and be placed and designed to maintain comprehensive emergency warning coverage. Locations will be coordinated with Oahu Civil Defense during final design.

Coordination of utility relocations will be scheduled, programmed, and monitored as a part of the Construction Management Plan and Public Participation Program.

IOS.5.12.10 Economic

Construction activities associated with the IOS will result in temporary construction related jobs. During construction of the IOS, local businesses could be negatively affected by increased congestion in front of their properties or by reduced access. Location-specific measures, including access, safety, noise and aesthetic requirements of adjacent businesses, will be identified during final design and incorporated into construction contracts. A public information program for commuters, tourists, local residents and the business community will be sustained. A community and government agency mitigation involvement program will be initiated to allow for the exchange of information and ideas.

IOS.5.12.11 Aesthetic and Visual

The construction work for the IOS will occur in highly visible and traveled areas. Therefore, orderly and clean work sites will be required and enforced throughout construction. Landscaping will be left in place and protected for as long as possible and replaced as soon after construction as possible. Plans for re-landscaping the impacted areas will be reviewed by the DPP to maintain cohesive visual corridors.

IOS.5.12.12 Historic Resources and Archaeology

Discussion of the potential impacts on historic properties is provided in Section IOS.5.10. Historic-period resources will not be affected by construction of the IOS because these properties will not be in the construction area, nor will they be used to store equipment and vehicles or used as staging areas. There is a chance that construction along certain sections of the IOS, such as in Waikiki, could uncover Kupuna Iwi (ancestral bones) or other archaeological artifacts. However, the alignment is mostly urban and has been substantially altered for many years. In addition, most of the project requires little excavation. The project's MOA will provide procedures in the unlikely event that unanticipated resources are encountered during construction of the IOS. The SHPO will be notified immediately if any bones, artifacts or other signs of historic occupation are observed.

IOS.5.13 Other Environmental Considerations

IOS.5.13.1 Indirect Impacts

Because investment in a fixed transitway can have an effect on land use and development, the IOS may induce transit-oriented development. As discussed in Section 5.1, the Refined LPA, of which the IOS is a subset, will convey government's willingness to invest in a fixed transit system.

The IOS may help stimulate planned commercial and residential development in areas such as Kakaako. Transit-oriented development and/or re-development such as mixed-use high density residences and pedestrian-scale commercial districts could flourish in areas immediately surrounding transit centers and transit stops, which may otherwise take longer to develop. However, implementation of the IOS alone is unlikely to produce desired development. It will only occur in combination with favorable land use, plans, policies, regulations, zoning, and market conditions.

Development spurred by improvements in transit may result in increased demands on water and energy resources, civil services, and infrastructure, as well as some incremental pollution. However, the Primary Urban Center is already highly urbanized, and the IOS in the year 2006 will have minimal impact on new development and the supporting infrastructure compared to the 2006 No-Build condition.

IOS.5.13.2 Cumulative Impacts

By 2006, the cumulative impacts of the IOS and other actions expected by 2006 (see Section IOS.5.1.2) are not anticipated to be serious due to the near-term time frame, and because of the large and highly urban nature of the IOS corridor.

Substantial land use changes are not anticipated other than continued development in Kakaako, and certain spot locations in Waikiki (see Section IOS.5.1.2). The IOS will be an important addition to the transportation infrastructure of the corridor and will support planned developments in Kakaako and Waikiki. Major investments in additional infrastructure, such as for water, sewage, and electricity, are not expected to be necessary by 2006 to accommodate planned development.

The planned developments may require some displacements of existing land uses, but along with the IOS, they will also enhance short- and long-term employment. The IOS and other developments are unlikely to adversely change ambient air quality and noise conditions, or encroach on parks or other public recreational facilities. They are also unlikely to adversely affect the corridor ecosystem since it is already highly modified by human activity. Water resources are highly regulated, and as urban development proceeds, cumulative water quality impacts of each project would be assessed during the environmental review and permitting processes. Similarly, historic properties are protected under federal and State law, and as subsequent

development proceeds, project proponents are required to coordinate with the SHPD. The DTS is committed to designing the transit stops of the IOS to be visually compatible with their surrounding environments.

IOS.5.13.3 Relationship Between Local Short-Term Uses Versus Long-Term Productivity

Short-term uses of the environment versus long-term productivity refers to the interplay between typically adverse, short-term, construction-phase impacts, and the benefits of the project upon completion. The relative balance between these factors must be disclosed.

Construction of the IOS will create short-term, confined adverse impacts, which are discussed in more detail in Section 5.12. Such impacts include temporary, localized increases in fugitive dust emissions, noise, and traffic congestion. Utility services could be temporarily affected, and erosion from exposed areas will need to be prevented. The IOS's long-term transportation improvements would counterbalance its temporary, construction-phase impacts by accomplishing the following:

- Improving public transportation service on Oahu, especially between Downtown Honolulu and Waikiki; and
- Providing improved travel time for transit patrons, thereby providing an attractive alternative to the private automobile.

IOS.5.13.4 Commitments of Resources

Given the urban setting of the IOS corridor, irreversible commitments of resources will be those associated with the construction process, such as use of energy, construction materials, and labor. Once applied to this project, these resources will not be available for other projects. This commitment of energy, materials, and labor is not a drawback since these resources would otherwise be committed to other construction projects.

IOS.6 FINANCIAL ANALYSIS

A financial analysis was conducted to identify the capital and operating costs and the timing and level of financial commitments needed from federal and local sources to build and operate the IOS.

IOS.6.1 Funding of Capital Costs

To determine the adequacy of the funding already approved to meet the capital requirements of the IOS, the capital costs presented in 2002 dollars in Section IOS.2.3 were converted to year of expenditure (YOE) dollars. Over the roughly two-year implementation period for the IOS (FY 2003 -2005) the capital costs are projected to total $50.9 million in YOE dollars. This assumes an annual compounded cost escalation rate of 2.5 percent.

Proposed funding for the IOS capital improvements will be $7.95 million from the Federal Transit Administration (FTA) Section 5309 Bus Capital Program, $11.90 million from the FTA Section 5309 New Starts Program, and the remaining $31.0 million from City General Obligation (G.O.) Bonds. The $31.0 million of City funding has already been approved in the City's FY 2003 capital improvement budget. The required federal funding has been appropriated by Congress in the FY 2003 Omnibus Appropriations Bill (P.L. 108-7) and the FY 2002 U.S. DOT and Related Agencies Appropriations Act (P.L. 107-87). The IOS is therefore fully funded.

IOS.6.2 Funding of Operating Costs

As indicated in Section IOS.2.4, the 2006 systemwide bus operating and maintenance (O&M) costs with the IOS in place, excluding TheHandi-Van, will be $119.3 million in 2002 dollars. This slight and lower difference from the No-Build condition is due to corollary service changes and use of more efficient vehicles. The system-wide O&M costs, excluding TheHandi-Van, will be $131.7 million in 2006 YOE dollars. Sources of funding for O&M costs in 2006 will be passenger fares (27.3%), FTA Section 5307 formula funds for preventive maintenance (6.4%) and City General Fund (66.3%).

IOS.7 REQUIRED PERMITS AND APPROVALS

Construction of the IOS may require the following regulatory approvals and permits. They will be obtained during final design.

State of Hawaii

- State Department of Transportation Permit to Perform Work Upon a State Highway
- HDOH – National Pollutant Discharge Elimination System (NPDES) Permit – stormwater associated with construction activity
- HDOH – Noise Variance (if nighttime construction is required)
- Disability and Communication Access Board Approval

City and County of Honolulu

- Special Design District Permit
- Building Permit
- Special Management Area Use Permit
- Grubbing, Grading, Excavation, and Stockpiling Permit
- Street Tree Review
- Permit to Excavate on Public Right-of-Way (Trenching)
- Street Usage Permit

IOS.8 UNRESOLVED ISSUES

Most issues raised during the extensive public involvement, coordination, and consultation conducted for this project have been addressed in the FEIS, although some issues remain unresolved. The unresolved issues are presented below with a brief discussion regarding resolution of the issue.

1. Transit Stop Design. The design of the architectural elements of the transit stops along the IOS corridor will involve public and agency input. When transit stops are near visually important areas, they will be given special design consideration to ensure there is no negative visual impact.

2. Tree Relocations. The exact locations where affected trees will be replanted will be determined during final design. The replanting plan will be prepared in concert with a certified arborist and with community input.

CHAPTER 6 FINANCIAL ANALYSIS AND EVALUATION

CHAPTER OVERVIEW AND ORGANIZATION

This chapter contains two parts. Section I provides the financial analysis for the IOS of the Refined LPA, based on the first full year of IOS operations in 2006. The analysis presented in Section II of this chapter describes the financial analysis for the 2025 No-Build Alternative, TSM Alternative, and Refined LPA. Section II also contains an evaluation of the degree to which various 2025 Alternatives satisfy the project purposes and needs presented in Chapter 1.

The financial analysis is presented in year-of-expenditure (YOE) dollars to provide a better understanding of the actual funds that would need to be expended and of the relative effect of inflation on costs and revenues.

The year 2002 is used as a base for comparison because it is the latest full year that costs can be verified. Baseline costs came from City budget documents (actual expenditures are slightly lower because of savings on expenditure restrictions).

Readers of this FEIS document who have reviewed previous documents will observe that project costs have dropped considerably from the DEIS and SDEIS due to the project refinements explained throughout the document. This has further improved project cost-effectiveness while enhancing service.

I. IWILEI TO WAIKIKI (IOS)

A financial analysis was conducted to identify the capital and operating costs and the timing and level of financial commitments needed from federal and local sources to build and operate the IOS.

The IOS construction is scheduled to be completed by 2005.

1) Capital Costs

The capital cost of the IOS is estimated to be $48.1 million in 2002 dollars. To determine the adequacy of the funding already approved to meet the capital requirements of the IOS, the capital costs presented in 2002 dollars were converted to year of expenditure (YOE) dollars. Over the roughly two-year implementation period for the IOS (FY 2003 -2005) the capital costs are projected to total $50.9 million in YOE dollars. This assumes an annual compounded cost escalation rate of 2.5 percent.

The IOS project will be fully funded through a combination of FTA sources matched by City General Obligation bonds. Funding for the IOS capital improvements will be $7.95 million from the Federal Transit Administration (FTA) Section 5309 Bus Capital Program, $11.90 million from the FTA Section 5309 New Starts Program, and the remaining $31.0 million from City General Obligation (G.O.) Bonds. The $31.0 million of City funding has already been approved in the City's FY 2003 capital improvement budget. The required federal funding has been appropriated by Congress in the FY 2003 Omnibus Appropriations Bill (P.L. 108-7) and the FY 2002 U.S. DOT and Related Agencies Appropriations Act (P.L. 107-87). The IOS is therefore fully funded.

The estimated $4-5 million cost of the ten hybrid-diesel-electric BRT vehicles that are required for IOS operations is not included in the capital cost of the IOS since all of the vehicles will be purchased with City funds as part of the regular fleet replacement program that will occur with or without the IOS being

implemented. The total size of the City's bus fleet is not expected to change with implementation of the IOS and will remain at 525 buses, including the ten hybrid diesel-electric vehicles.

2) Operating and Maintenance Costs

System-wide operating and maintenance (O&M) costs were forecast for conditions in FY 2006 with and without the IOS. This will be the first full year of operations after the IOS construction is completed in 2005. It is planned that the Kalihi and Kakaako Mauka branches of the In-Town BRT will be opened for service in the latter part of FY 2006. To isolate the O&M cost difference between the IOS and No-Build condition, the O&M costs for these other branches and for TheHandi-Van are not included in the IOS analysis presented in this section. The O&M costs of the other branches and for TheHandi-Van are reflected in the financial plan for the entire Refined LPA discussed in Section II (2025 Alternatives) of this chapter and in the cash flow tables presented in Appendix C.

The FY 2006 system-wide bus O&M cost excluding the Kalihi and Kakaako Mauka branches and TheHandi-Van is estimated to be $119.3 million in 2002 dollars. This is a $264,700 savings because of corollary service changes compared to the No-Build condition. The system-wide O&M costs excluding the Kalihi and Kakaako Mauka brances and TheHandi-Van in 2006 YOE dollars will be $131.7 million. Similar to today, this will be financed through a combination of passenger fares, FTA formula funds and City general funds. Sources of funding for O&M costs in 2006 will be passenger fares (27.3%), FTA Section 5307 formula funds for preventive maintenance (6.4%) and City General Fund (66.3%).

II. 2025 ALTERNATIVES

This section presents the financial analysis for the corridor-wide alternatives - No-Build Alternative, Transportation Systems Management (TSM) Alternative, and Refined Locally Preferred Alternative (LPA), which were described in Chapter 2. This section also presents the alternatives' comparison, which were in Chapter 7 in the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS).

The proposed financial plans for capital and for operations and maintenance (O&M) of the Refined LPA are presented within the context of the comparative costs and revenues associated with each alternative.

The Bus Rapid Transit (BRT) systems in the Refined LPA will be implemented between Fiscal Years (FYs) 2003-2016. As defined in the City and County of Honolulu's Revised Charter, fiscal years extend from July 1 through June 30. Over the 14-year implementation period, the capital cost of the Refined LPA BRT Program is projected to be $487.6 million in Year of Expenditure dollars (YOE $). Of this total, $243.2 million will be for the In-Town BRT system and $244.4 million will be for the Regional BRT system. If Embedded Plate Technology was to be implemented, $129.1 million would be added to the capital cost. The capital cost of the IOS is estimated to be $50.9 million (YOE).

Also included in the Refined LPA's financial analysis are the capital costs required for the acquisition and replacement of the entire bus and TheHandi-Van fleet and other system-wide improvements. These amount to $426.0 million (in YOE $) over the 2003 - 2016 period in which the Refined LPA BRT Program is implemented. For the 2003 through 2025 forecasting period used for environmental analyses in this FEIS the capital cost of the bus and TheHandi-Van acquisition and replacement program and other system-wide improvements is projected to be $723.3 million (in YOE $). The fleet would be replaced twice during this time period. The total estimated capital cost for the Refined LPA including vehicle acquisition and systemwide improvements is therefore $1.04 billion for the period 2003 through 2016, and $1.34 billion for the period 2003 through 2025. These are in YOE dollars.

The City's annual debt service payment between FYs 2003 and 2016 would increase $7.7 million for the Refined LPA over the No-Build Alternative, and $3.9 million over the TSM Alternative.

The FEIS financial analysis for the Refined LPA differs from the MIS/DEIS and SDEIS financial analyses in four primary ways:

- Refined LPA capital costs reflect additional refinements made to the proposed project, including alignment modifications. These have lowered the cost;
- State highway funding has been removed as a capital revenue source;
- City highway funding has been removed as a capital revenue source; and
- The implementation phasing plan for the Refined LPA has been adjusted to accommodate a conservative estimate of revenues over the 14-year period extending from FY 2003 to FY 2016.

The financial analysis concludes that the Refined LPA, along with the system-wide bus replacement and expansion program, can be funded without adding new taxes or raising taxes using the following revenue sources:

Capital Funding for the Refined LPA Program	
FTA Section 5307 Urbanized Area Formula (UZA) Funds	22%
FTA Section 5309 Fixed Guideway Modernization (FGM) Funds	2%
FTA Section 5309 Bus Capital Funds	5%
FTA Section 5309 New Starts Funds	23%
Federal Highway Administration (FHWA) Funds	13%
City General Obligation (GO) Bonds	35%
TOTAL	100%

Bus and BRT Operations & Maintenance Funding	
Passenger Fares	27%
FTA Section 5307 UZA Funds	7%
City Operating Support	66%
TOTAL	100%

In comparing the alternatives, the Refined LPA will provide the greatest increase in ridership within the Primary Corridor with an increase of over 13 percent. The Refined LPA will help achieve a more balanced transportation infrastructure in the Primary Transportation Corridor compared to the No-Build and TSM Alternatives. Compared to the No-Build and TSM Alternatives, the Refined LPA will result in higher islandwide and commuter transit ridership; carry more people during the morning peak hour, and improve the transportation linkage between Downtown Honolulu and Kapolei, Waikiki, UH-Manoa, and Kalihi. The $5.01 and $4.52 incremental cost per new transit rider for the Refined LPA over the No-Build and TSM Alternatives respectively is very favorable compared to the $6.25 incremental cost per new transit rider for the TSM Alternative over the No-Build.

Implementation of the Refined LPA will be phased over 14 years, the first phase consisting of construction of the Initial Operating Segment (IOS), which is scheduled to begin with award of a construction contract in Calendar Year 2003. The IOS Chapter presents the financial analysis for the implementation of this phase.

The conceptual funding plan for the Refined LPA was approved by the City Council when it adopted the LPA. Funding for the Refined LPA is also incorporated in the OMPO regional transportation plan (TOP 2025). For each phase of the total project to be implemented, there needs to be appropriations by the City Council and a commitment of federal matching funds. These appropriations exist for the IOS and will need to be obtained for the balance of the project.

In the discussion below, Section 6.1 describes the financial analysis for the proposed project, including the costs and the proposed funding of the project elements. Section 6.2 addresses differences among the No-Build Alternative, TSM Alternative, and the Refined LPA, based on multiple factors. Section 6.3 lists the permits and approvals that are anticipated for the Refined LPA.

6.1 FINANCIAL ANALYSIS

The Honolulu City Council has supported the financial approach to funding this project with primarily Federal funds and City GO Bonds. Resolution No. 99-338 adopted in December 1999, stated, in part, that "Be it further resolved that the Council strongly supports a preliminary financial approach to include phased use of federal transportation funds, local highway funds and City GO Bonds to provide the necessary funding;..." The Council's intentions are incorporated in the key elements and assumptions of this financial analysis.

This section summarizes the financial implications by presenting the capital and operating financial plans for each alternative. The financing plans are constructed to be affordable on an annual basis. A description is provided of the assumed revenue sources, commitment of these sources, and schedule of annual outlays planned.

Major existing sources of revenues were examined to determine the adequacy of sources of funds for the capital and operating requirements of the alternatives. Capital costs were then compared to the revenues projected to be available from these sources over the fourteen-year period of FYs 2003 to 2016, the years in which the projects would be implemented. Operating and maintenance costs were compared to the revenues projected to be available over the ten-year period of Fys 2007 to 2016. The reason that O&M costs and revenues are for a different time period than the capital costs is that the In-Town BRT is not scheduled to be completed and in full operation until 2007 (The IOS will start service in 2005). Costs and revenues for capital and O&M costs were, however, also compared over the 23-year period of FYs 2003 to 2025.

The financial analysis is presented in year-of-expenditure (YOE) dollars. This provides a better understanding of the actual funds that would need to be expended and of the relative effect of inflation on costs and revenues. A baseline rate of inflation of 2.5 percent has been assumed. The 2.5 percent rate is consistent with recent trends in the U.S. national inflation rate and one percent higher than Hawaii's inflation rate of 1.5 percent per year for the past five years. Year-of-expenditure dollar values are computed by multiplying 2002 dollar values by the compounded escalation factor for the relevant year. For example, in year-of-expenditure dollars, $1.00 in 2002 is equivalent to $1.025 in 2003 and $1.051 in 2004, using the assumed baseline inflation rate of 2.5 percent.

The financial analyses have been prepared on the basis of the information and assumptions set forth in this chapter. The projections may be affected by fluctuating economic conditions and are dependent on the occurrence of future events. Therefore, future financial requirements may vary from the projections and such variations could be material. These financial plans are based on specific implementation schedules and estimates of capital costs made during preliminary engineering which will be refined during final design. If available funding, construction costs, planning issues or other factors impact the schedule or the ability of the City to secure financing, the implementation schedules will need to be adjusted to accommodate the changed conditions. The financial plans for the alternatives assume that responsibility for funding and implementation will be shared among the City and federal transit and highway agencies. After environmental clearance is achieved, the respective roles and responsibilities of the various involved parties will be further clarified and their respective commitments of funding confirmed.

6.1.1 Key Measures of Financial Performance

The financial assessment uses a cash flow analysis to evaluate the ability of the various sources of capital and operating revenues to fund the estimated annual capital and O&M costs of the alternatives over the

entire period FYs 2003 – 2025. As indicated above, selected averages for representative years in between have been used for comparing the Alternatives. The sources and uses cash flow analysis consists of four basic components: Capital Costs, O&M Costs, Capital Revenues, and Operating Revenues.

Key measures have been used to assess the financial performance of the alternatives and to contrast the Refined LPA to the No-Build and TSM Alternatives. These measures are:

CAPITAL PERFORMANCE MEASURES

- Total Capital Cost;
- GO Bonds Issued by the City;
- FTA New Starts Funding Required;
- FHWA Funding Required;
- Average Annual Debt Service Payment (Post-2003 Debt);
- Ratio of Debt Service on GO Bonds (including Self-Supporting Bonds) to the City's Total Operating Budget: Maximum Ratio Reached; and
- Ratio of Debt Service on Direct Debt (excluding Self-Supporting Bonds) to General Fund revenues: Maximum Ratio Reached.

OPERATING PERFORMANCE MEASURES (FY 2007-2016)

- Average Annual O&M Costs;
- Average Annual City Operating Support for Transit O&M;

CAPITAL AND O&M PERFORMANCE MEASURES (FY 2007-2016)

- Average Annual Total City Contribution Required for Debt Service and O&M;
- Average Annual Increase in Total City Contribution Over the No-Build Alternative; and
- Average Annual Increase in Total City Contribution Over the TSM Alternative.

The results associated with these measures are discussed in Section 6.1.5.

6.1.2 Costs

The capital and O&M costs of the alternatives were computed in 2002 dollars over the FYs 2003–2025 period. These costs were then inflated to reflect year-of-expenditure dollars based on the proposed implementation schedule for each alternative. The financial analyses and tables focus on the first fourteen years for capital costs, which is the implementation period for the Refined LPA, and Fys 2007-2016 for O&M costs. The sections below summarize the capital and O&M costs of the alternatives.

1) Capital Costs

Table 6.1-1 summarizes the capital cost estimates for the No-Build Alternative, TSM Alternative, and Refined LPA in YOE dollars, by major cost component, over the fourteen-year implementation period of FYs 2003-2016. The capital cost estimates include construction costs and soft-costs such as final design and construction management costs, as well as set-asides for contingencies. To assure consistency, the implementation schedules used in the financial analyses are consistent with the schedules shown in Chapter 2.

TABLE 6.1-1
CAPITAL COSTS, BY ALTERNATIVE
FISCAL YEARS 2003 – 2016
(YOE $, 000)

	No-Build	TSM	Refined LPA
SYSTEM-WIDE IMPROVEMENTS			
Bus Acquisitions	$267,755	$296,837	$356,426
TheHandi-Van Vehicle Acquisitions	$22,905	$22,905	$22,905
Bus Maintenance Facility Expansion	--	$35,668	$35,668
Transit Centers and Parking	$10,061	$31,702	--
Kamehameha Highway Corridor and Transit Centers	$10,882	$10,882	$10,982
Park-and-Ride	--	$6,076	--
Bus Priority Treatment	--	$34,434	--
Zipper Lane	--	$14,982	--
Subtotal, System-Wide Improvements	***$311,602***	***$453,486***	***$425,982***
IN-TOWN BRT COMPONENT			
In-Town BRT Fixed Facilities	--	-- --	$227,793
Net Cost of In-Town BRT Vehicles	--	-- --	$15,446
Subtotal, In-Town BRT Component	**--**	**-- --**	**$243,239**
EMBEDDED PLATE TECHNOLOGY (EPT) COMPONENT			
EPT Fixed Facilities	--	--	$97,826
Net Cost of EPT Vehicles	--	--	$31,246
Subtotal, EPT Component	**--**	**--**	***$129,072***
Subtotal, In-Town BRT and EPT Components			***$372,310***
REGIONAL BRT COMPONENT			
BRT Transit Centers and /Parking	--	--	$31,744
BRT Zipper Lanes	--	--	$142,410
BRT Priority Ramp Improvements	--	--	$70,225
Subtotal, Regional BRT Component	**--**	**--**	***$244,379***
Subtotal, In-Town BRT, EPT, and Regional BRT	**--**	**--**	***$616,689***
TOTAL CAPITAL COSTS	**$311,602**	**$453,486**	**$1,042,671**

Source: Sharon Greene & Associates, November 2002.
Note: Rounding of numbers may affect subtotals and totals.

2) Operating and Maintenance (O&M) Costs

The O&M costs for the No-Build Alternative, TSM Alternative, and Refined LPA include some or all of the following:

- Bus O&M;
- TheHandi-Van O&M; and
- In-Town BRT System O&M.

Tables 6.1-2A and 6.1-2B summarize O&M costs of the alternatives for two fiscal years in FY 2002 constant dollars. The fiscal years selected are FY 2007, at completion of In-Town BRT System's fixed facilities (in the Refined LPA) and FY 2017 when the Refined LPA is fully operational using Embedded Plate Technology. To facilitate comparison with current costs for transit operation, these costs are presented in 2002 constant dollars and compared to the actual O&M costs for FY 2002 in Table 6.1-2A and 6.1-2B, respectively. Annual O&M costs for each alternative through FY 2025 are reported in Year of Expenditure dollars in the Appendix C cash flow tables. It should be noted that actual O&M costs in FY 2002 were 5.3 percent below the budget.

To be conservative, the budgeted rather than the actual costs in FY 2002 were used as the baseline to project future O&M costs in the financial analyses.

TABLE 6.1-2A
COMPARISON OF FY 2007 ESTIMATED OPERATING AND MAINTENANCE COSTS, BY ALTERNATIVE, TO FY 2002 O&M BUDGET (IN 2002 CONSTANT $, 000)

	FY 2002 Budget	FY 2007		
		No-Build	TSM	Refined LPA
Bus	$114,075	$119,653	$121,579	$126,808
TheHandi-Van	$12,688	$14,067	$14,067	$14,067
TOTAL	$126,763	$133,720	$135,646	$140,875

Source: Sharon Greene & Associates, November 2002.
Note: At completion of In-Town BRT System fixed faculties.

TABLE 6.1-2B
COMPARISON OF FY 2017 ESTIMATED OPERATING AND MAINTENANCE COSTS BY ALTERNATIVE TO FY 2002 O&M BUDGET (IN 2002 CONSTANT $, 000)

	FY 2002 Budget	FY 2017		
		No-Build	TSM	Refined LPA
Bus	$114,075	$120,233	$130,699	$142,286
TheHandi-Van	$12,688	$15,129	$15,129	$15,129
TOTAL	$126,763	$135,362	$145,828	$157,415

Source: Sharon Greene & Associates, November 2002.
Note: At first year of operation of the Refined LPA using Embedded Plate Technology.

In addition to O&M costs for bus and TheHandi-Van service, an estimated $798,500 (in 2002 constant dollars) will be needed for Zipper lane O&M costs attributable to the Regional BRT system in the Refined LPA from the beginning of their use to FY 2025. Additional funds will also be needed for O&M costs attributable to Zipper lane improvements in the TSM Alternative. Since the zipper lane project elements in these alternatives are part of the Interstate highway system and the lanes are shared with high-occupancy vehicles, the financial plans assume that the costs will be borne by the State of Hawaii Department of Transportation (SDOT) as part of their annual O&M costs. Therefore, O&M costs associated with the Zipper lanes are not included in the financial analyses for the TSM Alternative and the Refined LPA.

6.1.3 Revenue Sources

The City's conceptual funding plans propose six revenue sources to fund the capital costs associated with the various cost elements comprising the alternatives. These sources consist of four specific Federal Transit Administration grant programs, Federal Highway Administration funds from various potential sources, and City general obligation bond funds. Three revenue sources are proposed to fund operating and maintenance costs.

1) Revenue Sources for Capital Costs

Revenue sources for the capital costs associated with the alternatives include the following proposed FTA and City sources and potential FHWA sources from a combination of FHWA programs:

Federal Transit Administration (FTA) Funds

- FTA Section 5307 Urbanized Area (UZA) Formula Grants;
- FTA Section 5309(m)(1)(A), Capital Investment Grants and Loans - Fixed Guideway Modernization Formula Grants;
- FTA Section 5309(m)(1)(B) Capital Investment Grants and Loans - New Starts Discretionary Grants; and
- FTA Section 5309 (m)(1)(C) Capital Investment Grants and Loans - Bus Capital Discretionary Grants.

Federal Highway Administration (FHWA)

- Surface Transportation Program (STP) 23 U.S.C. Section 133;
- Congestion Mitigation and Air Quality Program (CMAQ) 23 U.S.C. Section 149;
- Interstate Maintenance Program (IM) 23 U.S.C. Section 119; and
- National Highway System Program (NHS) 23 U.S.C. Section 103(b).

City GO Bond Proceeds

Tables 6.1-3A through 6.1-3C identify the potential capital sources assumed to fund the annual capital costs of the program elements over the FYs 2003-2016 period for each alternative. Costs are presented in year of expenditure dollars. The conceptual funding plans for the FEIS differ from those shown in the MIS/DEIS and SDEIS in four primary ways:

- Refined LPA capital costs reflect additional refinements made to the proposed project, including alignment modifications. These have lowered the overall cost;
- State highway funding has been removed as a capital revenue source and replaced with City GO bond proceeds and FTA Section 5309 New Start grant funds;
- City highway funding has been removed as a capital revenue source and replaced with City GO bond proceeds; and
- The implementation phasing plan for the Refined LPA has been adjusted to accommodate a conservative estimate of revenues over the 14-year period extending from FY 2003 to FY 2016

Federal Transit Administration (FTA) Funds

FTA currently provides federal assistance for the City's mass transit program under the Transportation Equity Act for the 21st Century (TEA-21), as amended, which authorizes FTA programs from Federal Fiscal Year (FFY) 1998 through FFY 2003. New legislation is presently being developed that will authorize FTA's continued operation for another four to six years.

The statute related to transit laws is codified in Title 49 United States Code (U.S.C.) Chapter 53. The various FTA funding sources identified in the financial analyses are described below. The term "apportionment" refers to a statutorily prescribed division or assignment of funds based on formulas in the law. The term "allocation" refers to an administrative or Congressional distribution of those funds that do not have statutory distribution formulas.

While the guaranteed transit funding levels in TEA-21 provide greater certainty about the annual flow of federal transit monies, FTA funds are appropriated on a yearly basis by Congress. Some level of uncertainty remains regarding the amount and timing of the discretionary and formula funds assumed for the alternatives. The conceptual Capital Financial Plans assume an annual apportionment of FTA Section 5307 Urbanized Area formula funds and $242.0 million in FTA Section 5309 New Starts funds for the BRT component. The continued authorization of FTA grant programs is assumed through FY 2025.

TABLE 6.1-3A
NO-BUILD ALTERNATIVE
CAPITAL FUNDING PLAN
FISCAL YEARS 2003 – 2016 (IN YOE $, 000)

Description *	Costs 2003-2016	UZA	*FTA* FGM	Bus Discr	*City* GO Bonds	FHWA	Total Revenue
Transit Centers	$10,061	$0	$0	$0	$10,061	$0	$10,061
Bus Acquisitions	$267,755	$129,584	$20,839	$0	$117,332	$0	$267,755
TheHandi-Van Vehicle Acquisitions	$22,905	$13,616	$0	$0	$9,289	$0	$22,905
Kamehameha Hwy Corridor and Transit Ctrs	$10,882	$0	$0	$8,664	$2,218	$0	$10,882
TOTAL NO-BUILD ALTERNATIVE	$311,602	$143,200	$20,839	$8,665	$138,899	$0	$311,602
% OF TOTAL NO-BUILD ALTERNATIVE		45%	7%	3%	45%	0%	100%

Source: Sharon Greene & Associates, November 2002.
Note: * See Chapter 2 for a detailed description of the project elements in the No-Build Alternative.

TABLE 6.1-3B
TRANSPORTATION SYSTEMS MANAGEMENT ALTERNATIVE
CAPITAL FUNDING PLAN
FISCAL YEARS 2003 – 2016 (IN YOE $, 000)

Description *	Cost 2003-2016	UZA	*FTA* FGM	Bus Discr	*City* GO Bonds	FHWA	Total Revenue
CAPITAL COSTS							
Transit Centers & Parking	**$31,702**	$3,405	$0	$0	$28,297	$0	**$31,702**
Bus Acquisitions	**$296,837**	$132,336	$20,839	$0	$143,661	$0	**$296,837**
TheHandi-Van Vehicle Acquisitions	**$22,905**	$12,077	$0	$0	$10,829	$0	**$22,905**
Expansion of Bus Maintenance Facility	**$35,668**	$4,695	$0	$0	$30,973	$0	**$35,668**
Park-And-Ride	**$6,076**	$0	$0	$0	$6,076	$0	**$6,076**
Bus Priority Treatment	**$34,434**	$0	$0	$0	$34,433	$0	**$34,434**
Zipper Lane	**$14,982**	$0	$0	$0	$2,998	$11,985	**$14,982**
Kamehameha Hwy Corridor &Transit Ctrs	**$10,882**	$0	$0	$8,665	$2,216	$0	**$10,882**
TOTAL TSM ALTERNATIVE	**$453,486**	**$152,513**	**$20,839**	**$8,665**	**$259,484**	**$11,985**	**$453,486**
% OF TOTAL TSM ALTERNATIVE		**34%**	**5%**	**2%**	**56%**	**3%**	**100%**

Source: Sharon Greene & Associates, November 2002.

Note: * See Chapter 2 for a detailed description of the project elements in the TSM Alternative.

TABLE 6.1-3C
REFINED LOCALLY PREFERRED ALTERNATIVE
CAPITAL FUNDING PLAN
FISCAL YEARS 2003 – 2016 (YOE $, 000)

	Cost		*FTA*		New Start		*City*		
Description *	2003-2016	UZA	FGM	Bus Discr	In-Town	Regional	GO	FHWA	Total Revenue
CAPITAL COSTS									
IN-TOWN BRT PROGRAM									
Fixed Facilities	$227,793	$0	$0	$0	$113,896	$0	$113,897	$0	$227,793
Net Cost for Hybrid-Electric Vehicles	$15,446	$0	$0	$2,345	$7,723	$0	$5,378	$0	$15,446
SUBTOTAL, IN-TOWN BRT COMPONENT	$243,239	$0	$0	$2,345	$121,619	$0	$119,275	$0	$243,239
% OF IN-TOWN BRT COMPONENT		0%	0%	1%	50%	0%	49%	0%	100%
EMBEDDED PLATE TECHNOLOGY									
Fixed Facilities	$97,826	$0	$0	$0	$48,913	$0	$48,913	$0	$97,826
Net Cost of EPT Vehicles	$31,246	$0	$0	$9,374	$15,623	$0	$6,249	$0	$31,246
SUBTOTAL, EMBEDDED PLATE TECHNOLOGY	$129,072	$0	$0	$9,374	$64,536	$0	$55,162	$0	$129,072
% OF EMBEDDED PLATE TECHNOLOGY		0%	0%	7%	50%	0%	43%	0%	100%
TOTAL, IN-TOWN BRT COMPONENT AND EPT	$372,310	$0	$0	$11,719	$186,155	$0	$174,437	$0	$372,310
% OF IN-TOWN COMPONENT AND EPT		0%	0%	3%	50%	0%	47%	0%	100%
REGIONAL BRT PROGRAM									
BRT Transit Centers and Parking	$31,744	$0	$0	$0	$0	$14,818	$6,349	$10,577	$31,744
BRT Zipper Lanes	$142,410	$0	$0	$0	$0	$15,540	$28,482	$98,388	$142,410
BRT Priority Ramp Improvements	$70,225	$0	$0	$0	$0	$25,487	$14,045	$30,693	$70,225
SUBTOTAL, REGIONAL BRT COMPONENT	$244,379	$0	$0	$0	$0	$55,845	$48,876	$139,658	$244,379
% OF REGIONAL BRT COMPONENT		0%	0%	0%	0%	23%	20%	57%	100%
SUBTOTAL, IN-TOWN, EPT, AND REGIONAL BRT	$616,689	$0	$0	$11,719	$186,155	$55,845	$223,313	$139,658	$616,689
% OF IN-TOWN, EPT, AND REGIONAL BRT		0%	0%	2%	30%	9%	36%	23%	100%
SYSTEM-WIDE IMPROVEMENTS									
Bus Acquisitions	$356,426	$185,056	$20,839	$27,281	$0	$0	$123,250	$0	$356,426
Handi-Van Vehicle Acquisitions	$22,905	$14,656	$0	$0	$0	$0	$8,249	$0	$22,905
Bus Maintenance Facility	$35,668	$22,801	$0	$0	$0	$0	$12,867	$0	$35,668
Kamehameha Highway Corridor and Transit Centers	$10,982	$0	$0	$8,745	$0	$0	$2,237	$0	$10,982
SUBTOTAL, SYSTEM-WIDE IMPROVEMENTS	$425,982	$222,514	$20,839	$36,026	$0	$0	$146,603	$0	$425,982
% OF SYSTEM-WIDE IMPROVEMENTS		52%	5%	8%	0%	0%	35%	0%	100%
TOTAL, BRT ALTERNATIVE	$1,042,671	$222,514	$20,839	$47,744	$186,155	$55,845	$369,917	$139,658	$1,042,671
% OF TOTAL BRT ALTERNATIVE		22%	2%	5%	18%	5%	35%	13%	100%

Source: Sharon Greene and Associates, November 2002.

Note: *See Chapter 2 for a detailed description of the project elements in the Refined LPA.

Urbanized Area (UZA) Formula Program, 49 U.S.C. Section 5307

The UZA Formula Program provides FTA funds for transit capital (including preventative maintenance) and planning. The term "preventive maintenance" is defined as all maintenance costs. The federal share for capital and planning assistance projects under the UZA Formula Program is up to 80 percent of the net project cost. The City is the direct recipient of Section 5307 funds.

A total of $25.3 million is assumed as the City's FY 2003 Section 5307 apportionment amount. This aggregated amount for the Honolulu and Kaneohe urbanized areas was calculated by FTA using the U.S. Department of Transportation's proposed FFY 2003 budget. From this total, $1.7 million will be transferred to FHWA in 2003 for the State's vanpool program, with $1.0 million assumed to be transferred annually thereafter. The City's annual Section 5307 apportionments are projected to increase 2.3 percent per year, consistent with the forecast assumptions of the General Accounting Office.[1]

The financial analyses allocate $20.0 million in Section 5307 funds for preventive maintenance in 2003 and 2004. Beginning in 2005, 30 percent of the City's annual Section 5307 apportionments are earmarked for preventive maintenance, up to the maximum statutory limit. The remaining 70 percent is used for other capital and planning activities. In years in which the entire 70 percent is not required for capital or planning activities, the remaining amounts are used for preventive maintenance. The Section 5307 assistance for preventive maintenance reduces the City's annual subsidy for transit operating and maintenance (O&M) costs. Section 5307 funds are used for all alternatives. Over the FY 2003-2016 period, a total of $730.5 million is projected to be received.

Capital Investment Grants and Loans, 49 U.S.C. Section 5309

Under 49 U.S.C. Section 5309, FTA makes grants to assist in financing capital projects under the following three categories of projects:

- Modernization of fixed guideway systems, 49 U.S.C. Section 5309(m)(1)(A);
- Construction of new fixed guideway systems and extensions (New Starts), 49 U.S.C. Section 5309(m)(1)(B); and
- Bus and bus-related facilities, 49 U.S.C. Section 5309(m)(1)(C).

Fixed Guideway Modernization (FGM)

Capital projects to modernize or improve fixed guideway systems are eligible for Fixed Guideway Modernization assistance. The term "fixed guideway" refers to any transit service that uses exclusive or controlled rights-of-way or rails, entirely or in part. The term includes the portion of motor bus service operated on exclusive or controlled rights-of-way, and high occupancy vehicle (HOV) lanes. Eligible projects include, but are not limited to, the purchase of rolling stock, signals and communications, operational support equipment, and preventive maintenance. This funding source is used for bus acquisition in the capital financing plans for each alternative.

The City is the direct recipient of Section 5309 FGM funds. Approximately $1.3 million is assumed as the City's FY 2003 Section 5309 FGM apportionment amount. The amount was calculated by FTA using the US Department of Transportation's proposed FFY 2003 budget. The City's annual FGM apportionments are

[1] "Budget of the United States Government, Analytical Perspectives, Fiscal Year 2003," Chapter 7. Table 7-3: Federal Investment Spending and Capital Budgeting. Federal Investment Budget Authority and Outlays: Grant and Direct Federal Funds, page 137.

projected to increase two percent per year. A total of $20.8 million is Section 5309 FGM funding is projected over the FY 2003-2016 period. The City would qualify for higher levels of FGM funding when the BRT fixed guideway systems in the Refined LPA are at least seven years old. The potential increases in future FGM funding are not included in the financial analyses and result in a conservative estimate of future funding levels from this source.

New Starts

The term "New Starts" refers to a project that involves building a new fixed guideway system or extending an existing fixed guideway. Projects become candidates for funding by successfully completing the appropriate steps in FTA's major capital investment planning and project development process. Capital projects under this category include, but are limited to, preliminary engineering, acquisition of real property (including relocation costs), final design, construction, and initial acquisition of rolling stock for the system.

FTA Section 5309 New Starts funding is proposed only for the Refined LPA. New Starts funds are assumed to pay for 39 percent of the BRT systems in the Refined LPA. By BRT system component, New Start monies will fund 50 percent of the cost of the In-Town BRT system, 50 percent of the cost of the EPT, and 23 percent of the cost of the Regional BRT system, with FTA Bus Capital, FHWA, and local funds paying the balance. A total of $242.0 million in FTA New Starts funding is proposed. The City would be the direct recipient of FTA New Starts funding allocations for the Refined LPA.

Bus and Bus-related Facilities (Bus Capital)

The major eligible items under this category are buses and other rolling stock, ancillary equipment, and the construction of bus facilities. This category also includes bus rehabilitation and leasing, park-and-ride facilities, parking lots associated with transit facilities, and bus passenger shelters.

Section 5309 Bus Capital funds are assumed in the financial analysis of all alternatives. Over the FY 2003-2016 period, a total of $8.7 million in Section 5309 Bus Capital funding is proposed for the No-Build and TSM Alternatives and $47.7 million for the Refined LPA. Funding for Bus Capital projects is at the discretion of Congress or the Secretary of Transportation, and is not allocated using a statutory formula. The City would be the direct recipient of Section 5309 Bus Capital funds allocated for its bus and bus-related facility projects.

Federal Highway Administration (FHWA) Funds

Like FTA, FHWA is authorized to provide federal aid under TEA-21 until FFY 2003. The next surface transportation authorization act will also include FHWA programs. The State of Hawaii Department of Transportation is the direct recipient of FHWA funds and currently receives between $116.0 million to $120.0 million each year. Funding for the Refined LPA is projected to use about 17 percent of the total FHWA funds available for transportation projects, not including any formula increases after the TEA-21 authorization period. The funding plan for the Refined LPA is included in the Transportation for Oahu Plan (TOP) 2025, approved by Oahu Metropolitan Planning Organization (OMPO) on April 6, 2001.

Federal highway law is codified in Title 23 U.S.C. The FHWA programs that are potential sources of funds are described below. The funds under these programs are all apportionment funds. The financial analyses assume that the FHWA program funds would provide up to 80 percent of the eligible costs with City general obligation bonds providing a local match of at least 20 percent. Approximately $12.0 million in FHWA funds is assumed in the financial analysis for the TSM Alternative. For the Refined LPA, a total of $139.6 million is assumed, with a $20.0 million annual maximum during the FYs 2003-2016 period. The annual levels of FHWA funding proposed in the financial analysis will require the City to utilize GO bond proceeds and/or short-term financing in advance of receiving FHWA funds to pay for the transit-related highway capital elements in certain years. These advances will be reimbursed after FHWA funds are received and are credited back to the City in the cash flow analysis.

Surface Transportation Program (STP), 23 U.S.C. Section 133

The STP provides funding that may be used by states and localities for projects on any Federal-aid highway, bridge projects on any public road, transit capital projects, and intracity and intercity bus terminals and facilities. Zipper Lane enhancements proposed in the TSM Alternative and Refined LPA are eligible for STP funding. Costs of the regional transit centers and park-and-ride lots, and BRT priority ramp improvements associated with the Refined LPA are also eligible for STP funding.

Congestion Mitigation and Air Quality Improvement (CMAQ) Program, 23 U.S.C. Section 149

The primary purpose of the CMAQ Program is to fund projects and programs in air quality non-attainment and maintenance areas for ozone, carbon monoxide, and small particulate matter which reduce transportation-related emissions. As a state that does not have and never has had a non-attainment area under the Clean Air Act, Hawaii is authorized to use its annual CMAQ apportionment for any project eligible for STP funds.

Interstate Maintenance (IM) Program, 23 U.S.C. Section 199

The Interstate Maintenance Program provides funding for resurfacing, restoring, rehabilitation and reconstructing most routes on the Interstate System. Costs associated with the H-1 Zipper Lane and direct access ramps are eligible under the Interstate Maintenance Program.

National Highway System (NHS) Program, 23 U.S.C. Section 103(b)

This program provides funding for improvements to rural and urban roads that are part of the National Highway System, including the Interstate System and designated connections to major intermodal terminals. Under certain circumstances, NHS funds may also be used to fund transit improvements in NHS corridors.

The TSM Alternative and Refined LPA incorporate transit-related highway improvements on portions of the State and federal highway system. In the TSM Alternative, FHWA funds are assumed to pay 80 percent of the cost of proposed improvements to the zipper lane. In the Refined LPA, FHWA funds are proposed to be used for a portion of the cost of the regional transit centers and park-and-ride lots, zipper lane enhancements, and BRT priority ramp improvements. These projects are eligible for funding from one or more of the federal highway sources described above. All of the projects are eligible for Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ) funds. The H-1 Zipper Lane and access ramp improvements are eligible for receipt of Interstate Maintenance (IM) funds. Most of the projects are on the National Highway System and are therefore eligible for National Highway System (NHS) High Priority Project funds. The financial analyses do not identify revenues from definitive FHWA sources because programming of FHWA funds for specific projects is done through joint FTA/FHWA regulatory planning processes.

General Obligation Bonds

The City issues general obligation (GO) bonds for the construction of major capital facilities. GO bonds are direct obligations of the City for which its full faith and credit are pledged.

City GO Bonds are proposed to finance the local funding share required for transit capital improvements. Proceeds from the GO Bonds will be used for on-going system-wide bus and TheHandi-Van vehicle acquisitions and replacements and other capital projects proposed in the City's annual Six-Year Capital Improvement Program, as well as for the In-Town and Regional BRT systems in the Refined LPA. Issuance of GO Bonds will be required to meet annual cash flow requirements during the FYs 2003-2016 capital project implementation period for all alternatives. Due to limitations assumed on the annual levels of FHWA highway funds received over this period, the City will also need to issue bonds in order to advance funds in place of the federal highway monies to be received in subsequent years for the Refined LPA.

To accommodate the annual levels of capital funding required through FY 2016, a total of $259.5 million and $369.9 million in bonds would be needed for the TSM Alternative and Refined LPA respectively with $138.9 million in bonds required for the No-Build Alternative. Over the FY 2017 to 2025 period, an additional $84.3 million and $92.6 million in bonds will also need to be issued to assist in funding the annual costs of bus and TheHandi-Van vehicle replacements of the TSM Alternative and Refined LPA, respectively, with an additional $64.9 million in bonds needed for the No-Build Alternative.

There are several policy criteria assumed in the use of GO Bonds. First, the annual level of outstanding bond indebtedness is assumed to be capped relative to projected City revenues. The assumption is that property values will remain flat and that the City will maintain the current property tax rate. This creates a ceiling on the amount of GO Bonds the City would be able to issue because it limits the City's debt service payment capacity to the current level of property tax revenues. Second, and related to the first criterion, is the assumption that the City will retain its AA-/Aa3 Credit Rating for GO Bonds and its associated discounted cost of borrowing.

With regard to the first criterion, the Council of the City and County of Honolulu adopted Resolution No. 02-140, CD1. This resolution enunciates the Debt and Financial Policies under which the City manages its operating and capital programs and budgets and its debt program. In accordance with the Debt Policies contained in the resolution, the City has established affordability guidelines in order to preserve credit quality. The affordability guidelines, "which may be suspended for emergency purposes or because of unusual circumstances," are as follows:

a) Debt service for GO bonds as a percentage of the City's total operating budget should not exceed 20 percent; and

b) Debt service on direct debt, excluding self-supporting bonds, as a percentage of General Fund revenues should not exceed 20 percent.

An analysis was conducted to assure compliance with the City's Debt and Financial Policies, which included debt service payments on outstanding bonds issued before FY 2003, planned future notes and bonds as projected by the City, and additional bonds required as a result of this project. The analysis shows that there is additional bonding capacity in each of the project years. The second criterion assumes that the City will retain its GO Bond Rating (Aa3 from Moody's and AA- from Standard & Poor's) throughout the plan period. The City's high credit quality allows it to borrow at a lower cost than if it had a lesser credit rating. Therefore, the level of GO Bonds that are outstanding in any given year is assumed not to increase to an extent that will threaten the City's credit rating. There are many other factors that are included in a GO Bond credit rating in addition to the amount of outstanding direct bonded debt.[2] Broadly speaking, these are the socioeconomic and assessed property value base that generates tax revenues, the City's financial operations (current account and budget balances), legal bond considerations, financial management and other factors.

Consistent with current City practice, the financial terms and conditions of the GO Bonds assumed in the financial analyses are a 25-year maturity with a 5.5 percent interest rate and interest-only payments in the first three years. The interest rate reflects the Bond Buyer 11 High Grade GO Bond Index. The annual level of bonding for all Alternatives was capped so as not to exceed $50.0 million in bonds issued in any one year.

While prudent relative to current market conditions, the financing costs associated with the GO Bonds assumed in this analysis are subject to potential fluctuations in the market. These assumptions should be

[2] The most important factor is the value of property. Honolulu has experienced a decline in property values since the early 1990s and has also seen an increase in appeals by homeowners to reassess the value of their property. The City has processed the majority of these requests and has stabilized the decline in property tax revenues.

periodically reviewed and updated, as required. It should be noted that financing costs associated with New Starts projects are eligible for New Starts and other FTA funding. While no such funding has been assumed in the financial plans for this purpose at this time, the availability of such funding would serve to reimburse the City for up to 50 percent of the financing costs on GO bonds associated with the New Starts BRT systems within the Refined LPA.

City Highway Fund

The City Highway Fund is earmarked by State law for highway and related activities. Major revenue sources include the City fuel tax, vehicle weight tax, and public utility franchise tax. While there have been fluctuations in the annual rate of growth of the Highway Fund, over the most recent ten year period Highway Fund revenues increased at a compound annual growth rate of 0.62 percent, with the major revenue sources in the Fund projected by the City to increase 1.6 percent annually over the next five years. For purposes of the financial analysis, the City Highway Fund was projected to increase 0.5 percent per year. Thus, to provide a conservative estimate, the assumed annual growth rate of the Highway Fund is below that of the past ten years and is one-third the rate of the City's projections.

City Highway Fund revenues are used to pay highway-related expenses of executive agencies. In addition, portions of the Highway Fund are transferred annually to the City General Fund for payment of transportation-related debt service and to the City Bus Transportation Fund for partial payment of bus transportation operating costs. In projecting the level of funds available for debt service in a particular year, the non-debt service expenditures made from the Fund were assumed to grow 1.0 percent annually, or at twice the rate of growth of the Fund itself. The balance remaining in the Fund after deduction of these other expenses was assumed to be the maximum amount of City Highway Fund revenues that would be available for debt service payments in that year.

2) O&M Funding Sources

O&M funding for the alternatives is derived from three main sources:

- Fare box revenues;
- FTA Section 5307 funds for preventive maintenance; and
- City Operating Support for Transit O&M.

Fare box Revenues

Fare box revenue projections for each of the three alternatives were developed in conjunction with the ridership forecasting process, and reflect current fare levels and an adopted City Council policy requiring the bus fare box recovery ratio to not fall below 27 percent nor exceed 33 percent. This fare box recovery ratio policy does not apply to TheHandi-Van. Based on the analysis results, bus fares including fares for BRT service are expected to cover roughly 27 percent of bus O&M costs over the FYs 2003 - 2025 period. TheHandi-Van fares are projected to cover roughly 11 percent of TheHandi-Van O&M costs. Together, bus and TheHandi-Van fare revenues are projected to provide 26 percent of transit O&M costs. These projected fare box recovery levels are consistent with historical levels.

FTA Section 5307 Urbanized Area (UZA) Formula Funds For Preventive Maintenance

As noted earlier, FTA Section 5307 UZA formula funds for capital assistance can also be used for preventive maintenance costs associated with the transit system. The financial plan proposes that $20.0 million in FTA Section 5307 funds be reserved for preventive maintenance in FYs 2003 and 2004. In other years, a target level of at least 30 percent of the formula funds is used for preventive maintenance. Over the FY 2003-2016

period, the total level of FTA Section 5307 funds projected to be used for preventive maintenance purposes is $253.6 million for the No-Build Alternative, $244.3 million for the TSM Alternative, and $174.3 million for the Refined LPA. FTA Section 5307 UZA funds used for preventive maintenance are projected to cover 11, 10, and 7 percent of O&M costs in the No-Build Alternative, TSM Alternative, and Refined LPA, respectively. This decrease in the share of FTA Section 5307 UZA funds used for preventive maintenance is attributable to the larger share of such funds used for capital in the more capital-intensive alternatives.

Use of FTA Section 5307 funds for preventive maintenance serves to reduce the level of City operating support required.

City Operating Support

The City provides annual funding support for transit O&M. This operating support is provided chiefly through transfers from the City Highway Fund and the City General Fund to the Bus Transportation Fund. These transfers supplement fare revenues and prior year carryover monies in the Bus Transportation Fund. The City Highway and General Fund transfers to the Bus Transportation Fund provide the largest source of O&M funding and cover 63, 65, and 67 percent of the O&M costs of the No-Build Alternative, TSM Alternative, and Refined LPA, respectively. The City's FY 2003 Operating Budget Ordinance (Ordinance 02-26) identifies approximately $75.8 million to be transferred from the City Highway Fund ($35.1 million) and the City General Fund ($40.7 million) to the Bus Transportation Fund.

Within the financial analyses, the FY 2003 level of City operating support for all alternatives was estimated to be $81.9 million, or higher than the FY 2003 Budget. Over the FY 2003 – 2016 period for completing the In-Town and Regional BRT systems in the Refined LPA, the level of City operating support transfers into the Bus Transportation Fund is projected to increase (in Year of Expenditure dollars) to an annual average of $102.0 million for the No-Build Alternative, $107.4 million for the TSM Alternative, and $119.3 million for the Refined LPA. In 2002 constant dollars, the equivalent levels of annual average operating support are projected to be $86.0 million, $90.4 million, and $100.4 million for the alternatives respectively. For all three alternatives, the increased levels of City operating support are required to offset annual increases in O&M costs attributable to inflation. For the TSM Alternative and the Refined LPA, the increases are also attributable to the incremental O&M costs associated with the higher levels of service.

Noted in the discussion of the City Highway Fund above, the funds transferred from the City Highway Fund to the Bus Transportation Fund are assumed to grow at 1 percent per year, or below the rate of growth in O&M costs. As a result, the share of City operating support derived from the City Highway Fund is projected to decrease annually while the share derived from the City General Fund increases annually. By 2016, the share of City operating support from the Highway Fund and General Fund respectively are projected to be 25 percent and 75 percent.

6.1.4 Cash Flow Requirements

Tables 6.1-4 and 6.1-5 summarize the capital and O&M funding required by source for the No-Build Alternative, TSM Alternative, and Refined LPA. Table 6.1-4 compares the levels of capital funding required by source for each alternative over the fourteen-year implementation period of FYs 2003-2016. Table 6.1-5 contrasts the levels of O&M funding required, by source, for the representative years of FY 2007 and FY 2016.

The alternatives differ with regard to their relative levels of reliance on individual funding sources. With regard to capital revenues, sources such as FTA Section 5307 UZA and FTA Section 5309 FGM grants are common to all alternatives. While the two sources assume the same annual apportionment levels for each alternative, the alternatives differ with respect to the amount of FTA Section 5307 UZA funds used as capital sources.

FTA Section 5309 Bus Capital grants and GO Bond proceeds are common to all alternatives but provide different levels of funds. FHWA funds are common to the TSM Alternative and Refined LPA, but at different levels of funding. FTA Section 5309 New Starts grant funds are unique to the Refined LPA.

TABLE 6.1-4
FUNDING SOURCES FOR CAPITAL COSTS, BY ALTERNATIVE
FISCAL YEARS 2003- 2016 (YOE $, 000)

	NO-BUILD	TSM	Refined LPA
CAPITAL SOURCES			
Federal Transit Administration			
Sec. 5307 UZA Formula	$143,200	$152,513	$222,514
Sec. 5309 FGM	$20,839	$20,839	$20,839
Sec 5309 Bus Capital	$8,665	$8,665	$47,744
Sec. 5309 New Starts	--	--	$242,000
Federal Highway Funds			
FHWA	--	$11,985	$139,659
Local Funds			
G.O. Bonds	$138,899	$259,48	$369,917
TOTAL CAPITAL FUNDS	**$311,602**	**$453,486**	**$1,042,671**

Source: Sharon Greene & Associates, November 2002.
Note: Totals may differ due to rounding.

TABLE 6.1-5
FUNDING SOURCES FOR O&M COSTS, BY ALTERNATIVE
FISCAL YEARS 2007 AND 2017 (YOE $, 000)

	NO-BUILD	TSM	Refined LPA
FY 2007 OPERATING REVENUES			
Passenger Fares (Bus)	$37,195	$37,252	$39,199
TheHandi-Van Fares	$1,705	$1,705	$1,705
FTA Sec. 5307 UZA Funds (Preventive Mtnce)	$18,760	$19,995	$12,838
General Fund Revenues (for transit support)	$93,632	$94,519	$105,645
TOTAL O&M REVENUES	**$151,292**	**$153,471**	**$159,387**
FY 2017 OPERATING REVENUES			
Passenger Fares (Bus)	$49,976	$51,649	$57,621
TheHandi-Van Fares	$2,346	$2,346	$2,346
FTA Sec. 5307 UZA Funds (Preventive Mtnce)	$16,114	$16,114	$11,133
General Fund Revenues (for transit support)	$127,608	$141,093	$156,885
TOTAL O&M REVENUES	**$196,045**	**$211,202**	**$227,984**

Source: Sharon Greene & Associates, November 2002.
Notes: Includes TheHandi-Van O&M costs.
Totals may differ due to rounding.

As indicated in Table 6.1-5, the differences in annual O&M revenues for the alternatives increase over time, from a differential when comparing the Refined LPA to the No-Build Alternative of approximately $8 million in

FY 2007 with completion of the In-Town BRT system's fixed facilities, to a differential of approximately $32 million in FY 2017 when the Refined LPA is fully operational using embedded plate technology. These system-wide O&M cost estimates include TheHandi-Van.

1) Annual Cash Flow Requirements: FYs 2003 to 2016

Tables 6.1-3A through 6.1-3C presented earlier summarized the capital funding that would be required by source over the FYs 2003-2016 implementation period for the Alternatives as a whole and for the major project elements comprising them. In the absence of a major capital investment, the transit capital program represented by the No-Build Alternative would consist primarily of bus and TheHandi-Van vehicle acquisition and replacement costs. These would be funded chiefly with FTA Section 5307 Urbanized Area Formula Grant funds, supplemented with FTA Section 5309 Fixed Guideway Modernization, FTA Section 5309 Bus Capital funding, and City GO bond proceeds. Beyond the No-Build Alternative level, the capital program additions included in the TSM Alternative and the Refined LPA will require utilization of higher levels of City bonding to provide annual revenues sufficient to meet capital expenditure levels concentrated over the 14-year implementation period. While the Refined LPA assumes FTA Section 5309 New Starts funding and funding from FHWA highway sources, additional City short or long term bonding will also be required as a result of the $20 million cap on the annual level of FHWA funding. In the years in which the deferred FHWA funds are received, they are treated as reimbursements within the cash flow analysis.

Funding Plan for In-Town Bus Rapid Transit

As shown in Table 6.1-6, the capital cost of the In-Town BRT project element of the Refined LPA is $243.2 million (in YOE $). This amount includes $227.8 million in cost for the In-Town BRT fixed facilities and $15.4 million for the net cost of acquiring 30 hybrid-electric vehicles to operate In-Town BRT service prior to adding EPT. "Net cost" refers to the incremental cost for acquiring low-emission, environmentally-friendly hybrid-electric vehicles to operate along the In-Town BRT alignment fixed facilities relative to the base cost of similarly sized conventional diesel-powered buses that would be acquired for initial In-Town BRT service. While the incremental cost of the hybrid-electric vehicles is considered part of the In-Town BRT program, the base cost of $ 16.5 million (YOE $) for these vehicles is included in the System-Wide capital cost component of the Refined LPA.

TABLE 6.1-6
CAPITAL FUNDING SOURCES FOR IN-TOWN BUS RAPID TRANSIT SYSTEM
FISCAL YEARS 2003 – 2016 (YOE $, 000)
(REFINED LPA)

Source	Total $ (%)	In-Town BRT Elements
FTA Sec. 5309 New Starts	$121,619 (50%)	• In-Town BRT fixed facilities • Net cost of hybrid-electric vehicles
FTA Sec. 5309 Bus Capital	$2,345 (1%)	• Net cost of hybrid-electric vehicles
City GO Bonds	$119,275 (49%)	• In-Town BRT fixed facilities • Net cost of hybrid-electric vehicles
TOTAL	**$243,239 (100%)**	

Source: Sharon Greene & Associates, November 2002.

The In-Town BRT component is proposed to be funded with 50 percent FTA Section 5309 New Starts funds, matched with 49 percent in local capital funds in the form of City GO Bonds. FTA Section 5309 Bus Capital Funds would contribute the remaining one percent.

Funding Plan for Embedded Plate Technology (EPT)

As shown in Table 6.1-7, the capital cost of the EPT project element of the Refined LPA is $129.1 million (YOE $). This amount includes the cost of EPT fixed facilities and the net cost of the EPT vehicles. The incremental cost of the EPT components of the vehicles is considered part of the EPT component. The base cost for these vehicles is included in the System-Wide capital cost component of the Refined LPA.

TABLE 6.1-7
CAPITAL FUNDING SOURCES FOR EMBEDDED PLATE TECHNOLOGY SYSTEM
FISCAL YEARS 2010 - 2016 (YOE $, 000)
(REFINED LPA)

Source	Total $ (%)	EPT Elements
FTA Sec. 5309 New Starts	$64,536 (50%)	• EPT fixed facilities • Net cost of EPT vehicles
FTA Sec. 5309 Bus Capital	$9,374 (7%)	• EPT fixed facilities • Net cost of EPT vehicles
City GO Bonds	$55,162 (43%)	• EPT fixed facilities • Net cost of EPT vehicles
Total	**$129,072 (100%)**	

Source: Sharon Greene & Associates, November 2002.

The EPT component is assumed to be funded with 50 percent FTA Section 5309 New Starts funds matched with 43 percent in local capital funds in the form of City GO Bonds. FTA Section 5309 Bus Capital funds would contribute the remaining seven percent.

Funding Plan for Regional Bus Rapid Transit (BRT)

As shown in Table 6.1-8, the total capital cost of the Regional BRT element of the Refined LPA is projected to be approximately $244.4 million (in YOE $). This total includes the cost of the Regional BRT transit centers and parking facilities, Zipper lane, and BRT priority ramp improvements. Many of the Regional BRT components are improvements to provide dedicated or priority treatment for both buses and HOVs on portions of the Interstate system, including construction of bus-only access ramp improvements. Therefore, the conceptual financial plan calls for 57 percent of the cost of the Regional BRT to be paid for with FHWA funds. Project elements such as the transit centers and parking, Zipper lanes and priority ramp improvements are also eligible for FTA Section 5309 New Starts funds, shown in this plan to provide 23 percent of the funding for the Regional BRT, with City funds in the form of GO Bonds contributing the remaining 20 percent.

Funding Plan for Combined In-Town BRT, EPT, and Regional BRT Systems

Table 6.1-9 summarizes the funding plan for the combined In-Town, EPT, and Regional BRT systems in the Refined LPA over the FYs 2003–2016 implementation period. As shown in the table, the total cost of the combined In-Town, EPT, and Regional BRT Program is projected to be $616.7 million (YOE $).

As shown in the table, the combined BRT components are proposed to be funded with approximately 39 percent FTA New Starts funds, 36 percent City GO Bonds, 23 percent FHWA highway funds, and two percent FTA Section 5309 Bus Capital funds.

TABLE 6.1-8
CAPITAL FUNDING SOURCES FOR REGIONAL BUS RAPID TRANSIT SYSTEM
FISCAL YEARS 2003 - 2016 (YOE $, 000)
(REFINED LPA)

Source	Total $ (%)	Regional BRT Elements
FTA Sec. 5309 New Starts	$55,845 (23%)	• BRT transit centers and parking • Zipper lane • BRT priority ramp
FHWA	$139,658 (57%)	• BRT transit centers and parking • Zipper lane • BRT priority ramp improvements
City GO Bonds	$48,876 (20%)	• BRT transit centers and parking • Zipper lane • BRT priority ramp improvements
Total	**$244,379 (100%)**	

Source: Sharon Greene & Associates, November 2002.

TABLE 6.1-9
CAPITAL FUNDING SOURCES IN-TOWN, EPT, AND REGIONAL BRT SYSTEMS
FISCAL YEARS 2003 – 2016 (YOE $, 000)
REFINED LPA

Source	Total $ (%)	Project Element
FTA Sec. 5309 New Starts	$242,000 (39%)	• All project elements
FTA Sec. 5309 Bus Capital	$11,719 (2%)	• Regional BRT transit centers and parking • Zipper lane • BRT priority ramp improvements
FHWA	$139,658 (23%)	• Regional BRT transit centers and parking • Zipper lane • BRT priority ramp improvements
City GO Bonds	$223,313 (36%)	• All project elements
TOTAL	**$616,689 (100%)**	

Source: Sharon Greene & Associates, November 2002.
Note: Totals may differ due to rounding.

2) Funding Plan for Operating and Maintenance

Table 6.1-10 compares the TSM Alternative and Refined LPA to the No-Build Alternative with regard to the average annual O&M cost over the FY 2007-2016 period in which BRT service would be fully operational. As shown in the table, the alternatives differ by over 12 percent with regard to projected average annual O&M costs. The projected average annual O&M costs of the Refined LPA are 12.2 percent higher than the No-Build Alternative and 7.9 percent higher than the TSM Alternative.

As the projected average annual O&M costs in the Table 6.1-10 are in year of expenditure dollars, a comparison to current O&M costs requires presentation of the data in constant dollars. Table 6.1-11

compares O&M costs for the bus and TheHandi-Van service components of the alternatives to the estimated 2003 O&M costs using 2002 constant dollars.

TABLE 6.1-10
ESTIMATED AVERAGE ANNUAL OPERATING AND MAINTENANCE COSTS OVER FISCAL YEARS 2007 – 2016 (YOE $, 000)

Alternative	Average Annual O&M Cost	% Increase Over No-Build
No-Build	$170,469	
TSM	$177,280	4.0%
Refined LPA	$191,263	12.2%

Source: Sharon Greene & Associates, November 2002.
Note: Includes TheHandi-Van O&M costs.

TABLE 6.1-11
ESTIMATED AVERAGE ANNUAL OPERATING AND MAINTENANCE COSTS OVER FISCAL YEARS 2007 – 2016 (CONSTANT 2002 $, 000)

Alternative	Bus	TheHandi-Van	Total
FY 2003 Estimated	$119,421	$13,663	$133,084
NO-BUILD	$119,914	$14,539	$134,453
TSM	$125,111	$14,539	$139,650
Refined LPA	$136,047	$14,539	$150,586

Source: Sharon Greene & Associates, November 2002.

As shown in Table 6.1-11, expressed in 2002 constant dollars, the average annual O&M cost of the alternatives range from $134.5 million for the No-Build to $150.6 million for the Refined LPA. In comparison to the estimated FY 2003 O&M cost of $133.1 million, the No-Build Alternative, TSM Alternative, and Refined LPA are within 1 percent, 5 percent, and 13 percent of the FY 2003 estimated O&M cost. In addition to bus and TheHandi-Van O&M costs, the Refined LPA includes the cost of providing and maintaining the Regional and In-Town BRT service within the bus costs.

With respect to vanpool service, the cost of administering the Vanpool Hawaii program is assumed to equal the direct revenues received plus federal funding. None of the alternatives include the cost of the vanpool program currently borne by the SDOT. These costs would be common to all alternatives in the event the City assumed the vanpool program. If that were to occur, the City would receive an additional $1 million annually in FTA Section 5307 UZA funds that are assumed to be transferred to FHWA for SDOT operation of the program.

Revenues for the O&M costs associated with the alternatives would come from the following sources:

- Bus fares: these would cover a minimum of 27 percent of bus O&M costs;
- TheHandi-Van fares: these would cover roughly 11 percent of TheHandi-Van O&M costs;
- City Operating Support; and
- FTA Section 5307 Urbanized Area formula grant funds used for bus preventive maintenance.

In the absence of any new revenues to fund the higher local operating subsidy required, the financial analysis indicates that the City will have the financial capacity to fund the increased level of subsidy using existing sources of revenue through appropriations from the City's General Fund.

6.1.5 Financial Performance Measures

The results of the financial analyses are summarized in Tables 6.1-12 through 6.1-15 and are discussed below. The financial analyses focus on the performance of the Refined LPA relative to the No-Build and TSM Alternatives with respect to the following key measures:

Capital Funding and Debt Service Requirements, FYs 2003 – 2016[3]

- Total and Annual Capital Funding Required;
- Level of City GO Bonding Required;
- FTA Section 5309 New Starts Funding Required;
- FHWA Funding Required;
- Average Annual Debt Service Payment Required (Post-2003 Debt);
- Ratio of Debt Service on GO Bonds (including Self-Supporting Bonds) as a Percentage of the City's Total Operating Budget (By policy, should not exceed 20 percent); and
- Ratio of Debt Service on Direct Debt (excluding Self-Supporting Bonds) as a Percentage of General Fund Revenues (By policy, should not exceed 20 percent).

Operating And Maintenance Funding Requirements, FYs 2007 - 2016

- Average Annual Operations and Maintenance Costs; and
- Average Annual City Operating Support for Transit O&M.

Capital, Debt Service, and Operating Funding Requirements, FYs 2007 – 2016

- Average Annual Total City Contribution Required for Debt Service and Operating Support;
- Average Annual Increase in Total City Contribution over No-Build; and
- Average Annual Increase in Total City Contribution over TSM.

Detailed cash flow analyses were conducted for each alternative to assess total and annual financial requirements over the 2003 -2025 period. The analyses were performed using year of expenditure dollars inclusive of inflation. The detailed cash flow analyses are provided in Appendix C.

1) Capital Funding Requirements

The sections below summarize the key findings related to the seven capital funding evaluation measures:

- Total and Annual Capital Funding Required;
- Level of City GO Bonding Required;
- FTA Section 5309 New Starts Funding Required;
- FHWA Funding Required;
- Average Annual Debt Service Payment Required (Post-2003 Debt);
- Ratio of Debt Service on GO Bonds (including Self-Supporting Bonds) to the City's Total Operating Budget (Maximum Ratio Reached); and
- Ratio of Debt Service on Direct Debt (excluding Self-Supporting Bonds) to General Fund revenues (Maximum Ratio Reached).

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[3] FTA Section 5307 funding is not included as a key measure since the City's annual apportionment would be the same for all alternatives.

Total and Annual Capital Funding Required, FYs 2003 - 2016

Table 6.1-12 summarizes the total annual capital funding required for the No-Build Alternative, TSM Alternative, and Refined LPA over the 14-year implementation period. The capital costs of the Alternatives increase with the level of service being proposed. To an extent, the alternatives represent a spectrum, ranging from the No-Build Alternative, to the introduction of BRT-type elements in the TSM Alternative, to a high level of service provided by the In-Town and Regional BRT components in the Refined LPA. The spectrum of costs ranges from $311.6 million for the No-Build Alternative to $453.5 million for the TSM Alternative, to $1.04 billion for the Refined LPA.

TABLE 6.1-12
SUMMARY OF KEY FINANCIAL MEASURES BY ALTERNATIVE
OVER FYs 2003 - 2016 (YOE $, 000)

	No-Build	TSM	Refined LPA
CAPITAL PERFORMANCE MEASURES: FY 2003–2016			
Total Capital Cost	$311,602	$453,486	$1,042,671
GO Bonds Issued	$138,899	$259,484	$369,916
FTA New Starts Funding Required	--	--	$242,000
FHWA Funding Required	--	$11,985	$139,659
Average Annual Debt Service Payment (Post-2003 Debt)	$9,986	$13,800	$17,664
Ratio of Debt Service on GO Bonds (including Self-Supporting Bonds) to the City's Total Operating Budget: Maximum Ratio Reached	19.09% (FY 2004)	19.24% (FY 2004)	19.05% (FY 2004)
Ratio of Debt Service on Direct Debt (excluding Self-Supporting Bonds) to General Fund revenues: Maximum Ratio Reached	15.49% (FY 2011)	15.61% (FY 2011)	15.70% (FY 2011)
OPERATING PERFORMANCE MEASURES: FY 2007-2016			
Average Annual Operations and Maintenance Costs	$170,469	$177,280	$191,263
Average Annual City Operating Support for Transit O&M	$108,328	$115,540	$129,240
CAPITAL AND OPERATING PERFORMANCE MEASURES: FY 2007- 2016			
Average Annual Total City Contribution Required for Debt Service and O&M(Post-2003 Debt)	$120,678	$132,965	$151,899
Average Annual Increase in Total City Contribution Over No-Build		$12,287	$31,221
Average Annual Increase in Total City Contribution Over TSM			$18,934

Source: Sharon Greene & Associates, November 2002.

Tables 6.1-3A through 6.1-3C presented earlier summarize the capital funding requirements for the alternatives over the FYs 2003 -2016 implementation period. As shown in the tables, different levels of GO bonding, FTA Section 5309 New Starts funding, and FHWA funding are required to provide adequate funding during this period.

Level Of City GO Bonding Required, FYs 2003 - 2016

The financing plans for the No-Build Alternative, TSM Alternative, and Refined LPA assume that the City would use a portion of its GO bonding capacity. Table 6.1-13 summarizes the annual level of GO bonding required for each alternative. As shown in Table 6.1-13, the level of GO bonding required corresponds to the relative capital cost of the alternative over Fys 2003 to 2016. The highest cost alternative (Refined LPA) would have the greatest need for bonding ($369.9 million) compared with $138.9 million and $259.5 million

for the No-Build and TSM Alternatives respectively. A portion of the GO bonding required in the Refined LPA would be to provide capital funding in advance of receipt of FHWA federal grant funds. Table 6.1-13 summarizes the annual bonding that would be required for the Refined LPA over the FYs 2003-2016 period.

TABLE 6.1-13
ANNUAL GENERAL OBLIGATION BONDING REQUIRED BY ALTERNATIVE OVER FISCAL YEARS 2003 – 2016 (YOE $, 000)

Fiscal Year	NO-BUILD	TSM	REFINED LPA
2003	$20,437	$22,181	$23,232
2004	$21,642	$33,882	$45,712
2005	$26,497	$44,776	$49,984
2006	$18,994	$30,240	$46,589
2007	$11,365	$19,649	$16,384
2008	$5,754	$7,162	$21,276
2009	$1,025	$1,548	$28,977
2010	$844	$3,315	$16,265
2011	$1,955	$12,817	$24,508
2012	$80	$10,318	$5,299
2013	$3,618	$7,673	$12,003
2014	$1,396	$17,780	$20,258
2015	$8,584	$30,076	$28,673
2016	$16,758	$18,068	$30,756
TOTAL	**$138,899**	**$259,484**	**$369,916**

Source: Sharon Greene & Associates, November 2002.

FTA Section 5309 New Starts Funding

Table 6.1-14 summarizes the level of FTA Section 5309 New Starts funding required for the Refined LPA. On an annual basis, the financial plan assumes availability of New Starts funding for the Refined LPA at the expenditure levels presented in the table.

As shown in Table 6.1-14 and earlier in Table 6.1-3C, New Starts funding would provide approximately 39 percent for the total BRT Program. New Starts funding would constitute 50 percent of the capital revenues for the In-Town BRT related components, 50 percent for the EPT component, and 23 percent for the Regional BRT, with revenues received over the FYs 2003-2016 period. A total of $242.0 million in New Starts funding would be used for the Refined LPA.

FHWA Funding Required

The financial plan proposes that FHWA funding would be available for eligible projects components in the TSM Alternative and Refined LPA, up to an annual ceiling. The total level of FHWA funding over the FYs 2003-2014 periods is proposed not to exceed $20.0 million per year. FHWA funds are assumed to provide 80 percent of capital costs for eligible projects, with a 20 percent match coming from City GO Bonds. Actual

[4] FTA Section 5307 funding is not included as a key measure since the City's annual apportionment would be the same for all alternatives.

annual Federal highway funding levels and the relative shares from each FHWA program source would be determined through the federal programming process.

TABLE 6.1-14
FTA SECTION 5309 NEW STARTS FUNDING
ANNUAL EXPENDITURE LEVELS
FOR THE REFINED LPA
FISCAL YEARS 2003 – 2016 (YOE $, 000)

Fiscal Year	Amount
2003	$3,515
2004	$25,028
2005	$45,000
2006	$39,745
2007	$12,507
2008	$0
2009	$3,711
2010	$19,109
2011	$30,170
2012	$17,646
2013	$19,604
2014	$12,830
2015	$5,331
2016	$7,803
TOTAL	**$242,000**

Source: Sharon Greene & Associates, November 2002.

Table 6.1-15 summarizes the schedule assumed for receiving FHWA highway funds through the State of Hawaii for the TSM Alternative and Refined LPA. Even with the higher levels of FHWA funding required for the Refined LPA, less than 50 percent of the funds from eligible categories (IM, NHS, STP and CMAQ) and 13 percent of the total FHWA funding received by the State would be used over the 12-year period.

The financial analysis in the MIS/DEIS and SDEIS called for a total of $160.0 million in FHWA funding. This amount has been reduced by $20.4 million in the FEIS as a result of additional refinements made to the proposed project, including alignment modifications.

Average Annual Debt Service Payment Required

Table 6.1-12 summarizes the average annual debt service payment on post-2003 bond issues required for the alternatives. In comparison to the $10.0 million and $13.8 million in additional average annual debt service payments required for the No-Build and TSM Alternatives respectively, the additional average annual debt service payment required for the Refined LPA is $17.7 million.

2) O&M Funding Requirements

Two comparative measures have been used to evaluate the Alternatives:

- Average Annual Operating and Maintenance Costs; and
- Average Annual Operating Support for Transit O&M.

TABLE 6.1-15
ANNUAL FEDERAL HIGHWAY FUNDING REQUIRED FOR THE TSM ALTERNATIVE AND REFINED LPA FISCAL YEARS 2003-2016 (YOE $, 000)

Fiscal Year	TSM Alternative	Refined LPA	Amount Available for Other Statewide Projects with Refined LPA
2003	$0	$0	$86,327
2004	$0	$0	$87,190
2005	$0	$0	$88,062
2006	$858	$1,207	$87,736
2007	$5,495	$11,587	$78,245
2008	$5,632	$20,000	$70,730
2009	$0	$20,000	$71,639
2010	$0	$20,000	$72,555
2011	$0	$20,000	$73,480
2012	$0	$20,000	$79,361
2013	$0	$20,000	$75,358
2014	$0	$6,865	$84,587
2015	**$0**	**$0**	**$0**
2106	**$0**	**$0**	**$0**
TOTAL	**$11,985**	**$139,659**	**$955,270**
	1%	**13%**	**87%**

Source: Sharon Greene & Associates, November 2002.
Note: Includes NHS, STP, CMAQ, and IM funding categories only. FY 2003 amount is from the estimated TEA-21 apportionment, as provided by the State Department of Transportation. Estimates for FY 2004 and beyond are calculated at a conservative 1.00% increase per year. Funding for FHWA Bridge Rehabilitation and Replacement, Metropolitan Planning, Innovative Projects / Rec. Trails, High Priority Projects, and Minimum Guarantee categories are not included in the total.

Average Annual Operating and Maintenance Costs: FY 2007-2016

As shown in Table 6.1-12, over the FY 2007-2016 period in which the In-Town BRT program becomes fully operational, the average annual O&M cost for bus and TheHandi-Van service is projected to range from $170.5 million for the No-Build Alternative to $177.3 million and $191.3 for the TSM Alternative and Refined LPA respectively. The percentage difference between the TSM and No-Build Alternatives is 4 percent, with a 12 percent difference between the Refined LPA and the No-Build. Between the Refined LPA and the TSM Alternative, the percentage difference is 8 percent.

Average Annual City Operating Support for Transit O&M: FY 2007-2016

All of the alternatives would require City operating support to supplement fares and FTA Section 5307 UZA funds for the O&M costs of the bus and TheHandi-Van services. As shown in Table 6.1-12, over the FY 2007-2016 period in which the In-Town BRT program becomes fully operational, the average annual City operating support for O&M would be $108.3 million for the No-Build Alternative, $115.5 million for the TSM

Alternative, and $129.2 million for the Refined LPA. The difference between the lowest (No-Build) and highest (Refined LPA) average annual level of City operating support would be $20.9 million.

The Operating and Maintenance Financial Plans reflect an 11.9 percent increase over the TSM in the annual level of local operating support for the Refined LPA. If actual O&M costs are higher than the projections, or if actual fare revenues are lower, there still remain a variety of means for the needed level of support to be met. For example, changes in the fare structure could be made that would minimize impacts on transit dependents yet maintain or increase revenues. As another example, increases in the "cap" within which employers may fund employee transit expenses without these being considered "income" for Internal Revenue Service reporting purposes would also enhance transit's ability to increase operating revenue from the fare box. Thus, many ways exist to meet the levels of operating support assumed in this analysis.

3) Capital and Operating Performance Measures

Three comparative measures have been used to evaluate the alternatives with respect to total City contribution required for both capital and for O&M funding:

- Average Annual Total City Funding Support Required for Debt Service and O&M;
- Average Annual Increase in Total City Contribution over the No-Build Alternative; and
- Average Annual Increase in Total City Contribution over the TSM Alternative.

Average Annual Total City Funding Support Required for Post-2003 Debt Service and O&M

As shown in Table 6-1.12, higher levels of City financial support would be required for the TSM Alternative and Refined LPA relative to the No-Build Alternative. The average annual level of City contribution required for post-2003 debt service and operating support for Fys 2007 to 2016 would be $120.7 million for the No-Build Alternative, $133.0 million for the TSM Alternative, and $151.9 million for the Refined LPA.

Average Annual Increase in Total City Funding Support over the No-Build Alternative

Relative to the No-Build Alternative, the average annual incremental level of City contribution required for Fys 2007 to 2016 would range from an additional $12.3 million per year for the TSM Alternative to $31.2 million for the Refined LPA.

Average Annual Increase in Total City Funding Support over the TSM Alternative

Relative to the TSM Alternative, the average annual incremental level of City contribution for FY 2007 to 2016 would be $18.9 million per year for the Refined LPA.

6.2 ALTERNATIVES COMPARISON

In the MIS/DEIS and SDEIS, the alternatives comparison was presented in Chapter 7. This discussion is being presented in this chapter. Chapter 7 presents the responses to comments received in response to the MIS/DEIS and SDEIS. This section compares how and the degree to which the alternatives satisfy the project purposes and needs presented in Chapter 1. It discusses the financial and environmental costs of satisfying these needs. Finally, this section reports the cost-effectiveness and equity (distribution of benefits) of each alternative; these are two criteria that the Federal Transit Administration (FTA) considers in deciding whether to qualify a new transit system for federal funding.

The alternatives are compared using cost, mobility, growth-shaping, land use, quality of life, environmental impact, cost-effectiveness, and equity criteria. Table 6.2-1 summarizes the evaluation findings for those criteria. This analysis is meant only to reconfirm selecting the BRT as the Locally Preferred Alternative (LPA).

TABLE 6.2-1
SUMMARY OF KEY EVALUATION MEASURES

Measures	No-Build	TSM	Refined LPA
CAPITAL AND O&M COSTS			
Total Capital Cost (FY 2003-2025) (Millions of 2002 $)	$404.4	$540.8	$954.9-$1,038.2*
Annual Operating and Maintenance Cost at Full System Operation (Millions of 2002 $)	$120.7	$139.8	$151.2
Impact on City Budget (Average Annual Costs for Debt Service and O&M Net of Fare Revenue) FY 2003-2016 (YOE)	$120.7 million	$133.0 million	$151.9 million
MOBILITY			
Daily Transit Trips Within the Primary Transportation Corridor (2025) (Daily Linked Trips)	261,130	279,400	312,570
Increase in Transit Trips Over the No-Build Within the Primary Transportation Corridor (2025)	N.A.	18,270	51,440
Daily Transit Mode Share Within the Primary Transportation Corridor (2025) (Work Trips)	19.2%	19.5%	22.6%
Daily Revenue Bus Miles (2025)	62,560	77,790	84,450
Comfort Level (Passengers Per Transit Seat) (2025)	1.31	1.01	0.90
Daily Reduction in Vehicle Miles of Travel (Compared to No-Build) (2025)	N.A.	27,340	718,530
Daily Reduction in Vehicle Hours of Delay (2025) (Compared to No-Build)	N.A.	13,285	78,080
Projected Transit Travel Time Between Downtown and Kapolei (2025)	83.1 minutes	78.0 minutes	58.2 minutes
Projected Transit Travel Time between Downtown and Waikiki (2025)	25.0 minutes	25.0 minutes	23.1 minutes
Projected Transit Travel Time between Downtown and UH-Manoa (2025)	24.4 minutes	23.3 minutes	22.6 minutes
Projected Transit Travel Time between Downtown and Kalihi (2025)	17.6 minutes	16.3 minutes	13.3 minutes
Typical Levels of Service on In-Town Roads (Transit)	E/F	E/F	B/C
Typical Levels of Service on In-Town Roads (Autos)	E/F	E/F	E/F
New Parking Spaces Provided at Transit Centers/Park-and-Rides	0	600	1,520
On-Street Parking Spaces Removed (Unrestricted/Restricted) (U/R)	0	166 (U)	IOS: 22 (U) Middle St. to Iwilei: 27 (U) Iwilei to Waikiki: 124 (R) Kakaako Mauka: 69 (U) / 66(R) UH-Manoa: 199 (U) / 343 (R)
Number of Loading Zones to be Mitigated	0	14	26
LAND USE DEVELOPMENT			
Support of transit-oriented development	Not supportive	Somewhat supportive	Most supportive
ECONOMIC IMPACT			
Employment (direct and indirect person-years jobs)	704	1,797	9,418

TABLE 6.2-1 (CONTINUED)
SUMMARY OF KEY EVALUATION MEASURES

Measures	No-Build	TSM	Refined LPA
QUALITY OF LIFE AND LIVABILITY			
In-Town Transit Technology	Diesel Buses	Diesel Buses	Hybrid diesel/electric or EPT for In-Town BRT
Visual Character	No Changes	Development of transit centers provide opportunities to improve the visual environment	Development of transit centers and In-Town BRT stops provide opportunities to improve the visual environment. Sound barrier near future Aloha Stadium Transit Center will cause visual impact.
Noise/Vibration (In-Town)	No or very little perceptible difference from existing conditions	Similar to the No-Build Alternative	Moderate noise impacts at residences from In-Town BRT operations on Dillingham Boulevard, using the hybrid-diesel vehicle. Use of hybrid diesel/electric or electric In-Town BRT vehicles generally less noisy than diesel buses.
Noise/Vibration (Regional)	No Impacts	No Impacts	Moderate noise impacts to nearby residences from increase in bus operations at future Aloha Stadium Transit Center and associated Luapele Ramp.
ENVIRONMENTAL IMPACTS			
Number of Business and Residential Displacements	Loss of four acres of agricultural land.	Loss of four acres of agricultural land.	Removal of two parking spaces at an apartment complex. Displacement of parking stalls, landscaping, and/or driveway effects on 22 businesses. Loss of four acres of agricultural land.

TABLE 6.2-1 (CONTINUED)
SUMMARY OF KEY EVALUATION MEASURES

Measures	No-Build	TSM	Refined LPA
Street Trees	No Impact	No Impact	Some tree trimming will be required. 32 "notable" and 68 non-notable trees will be relocated near their original locations. Roughly 50 other trees will be replaced. No designated exceptional trees will be affected.
Change in Energy Consumption Compared to No-Build (in thousands of barrels of oil)	N/A	35	-215
Historical Resources	No Impacts	No Impacts	Construction of an EPT system may uncover archaeological resources or native-Hawaiian ancestral burial sites along certain segments. In-Town BRT stops located within or near historic districts or properties with high visual integrity have the potential to affect historic characteristics.
Parkland Impacts	Joint-use of Aloha Stadium Kamehameha Highway parking lot as a transit center/park-and-ride	Same as No-Build Alternative	Same as No-Build Alternative
COST-EFFECTIVENESS			
Incremental Cost Per New Rider (compared to No-Build Alternative)	N/A	$6.25	$5.01
EQUITY			
Impacts/benefits to minority or low-income populations	No adverse impacts/ No increased benefits	No adverse impacts/ Some improvement in transit service	No adverse impacts/ Substantial improvement in transit service

Source: Parsons Brinckerhoff, Inc., November 2002.
Note: *If hybrid diesel/electric vehicles are used, the estimated cost is $954.9 million. If EPT vehicles are used, the estimated cost is $1,038.2 million.

6.2.1 Comparison of Alternatives Against Project Purposes and Needs

The purposes and needs to be addressed by a major transportation investment in the primary transportation corridor are listed below (from Chapter 1):

1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile;
2. Support desired development patterns;
3. Improve the transportation linkage between Kapolei and Honolulu's Urban Core; and
4. Improve the transportation linkages between communities in the Primary Urban Center (PUC).

Increase The People-Carrying Capacity Of The Transportation System In The Primary Transportation Corridor by Providing Attractive Alternatives to the Private Automobile

Detailed mobility analyses are presented in Chapter 4. The following enhanced mobility measures are used to compare the alternatives:

1. Person-carrying capacity of the roadway system;
2. Increased transit usage islandwide;
3. Reduced traffic congestion; and
4. Improvement to other level of service indicators.

1) Person-Carrying Capacity of the Existing Roadway System

The TSM Alternative and Refined LPA would increase person-carrying capacity by enhancing the level of transit service. Additionally, roadway lanes would become more efficient by reallocating them from general-purpose use to transit or ride-share use. The Refined LPA would provide substantially more person-carrying capacity within the Urban Core than the TSM Alternative, because of its superior level of transit priority.

Table 6.2-2 compares the A.M. peak hour person throughput for selected screenlines within the Urban Core for each of the alternatives. Table 6.2-2 shows that the Refined LPA would improve person-carrying ability within key corridors within the Urban Core by a range of 8 to 18 percent over the No-Build Alternative. To get an equivalent increase in person-carrying capacity through road construction alone, the roadway lanes in the Urban Core would need to be increased by almost two lanes in each direction (four lanes total). This is not feasible without major displacement of existing land uses and the accompanying adverse social and environmental impacts.

The TSM Alternative would not improve person-carrying capacity over the Refined LPA.

Transit systems have the additional advantage of being able to provide still further person-carrying capacity and expansion potential. Each In-Town BRT vehicle has an assumed capacity of 120 persons, corresponding to a 60-foot articulated vehicle with a single articulation joint. Using higher capacity vehicles (i.e. bi-articulated buses) or a further increase in the BRT frequency of service would add more person-carrying capacity, without the need for additional roadway construction. Therefore, the Refined LPA has the potential to further increases the person-carrying capacity beyond that provided by the No-Build and TSM Alternatives. The Regional and In-Town BRT systems are investments that would efficiently serve growth in travel demand well into the future, beyond the 2025 planning horizon.

TABLE 6.2-2
PROJECTED 2025 A.M. PEAK HOUR PERSON-CARRYING CAPACITY AT SELECTED SCREENLINE LOCATIONS (PERSONS/HOUR)

Screenline Location	Alternative		
	No-Build	TSM	Refined LPA
Ewa-bound at Ward Avenue	21,120	20,600	24,940
Ewa-bound at Punchbowl Street	21,105	20,520	22,865
Koko Head-bound at Liliha Street	24,310	22,825	28,760
Koko Head-bound at Bishop Street	24,665	23,765	27,920

Source: Parsons Brinckerhoff, Inc., October 2002.
Note: Capacity can be increased through using larger vehicles or providing more frequent service.

2) Increased Transit Usage Islandwide

Transit ridership reflects trips taken on transit (not counting transfers). The measure "ridership" addresses key goals of increasing the number of people using transit, decreasing the number using individually driven automobiles, and increasing the patrons paying fares. Higher ridership indicates increased attractiveness of a transit system, otherwise transit patrons would choose another mode. Increased transit ridership amplifies the secondary benefits already enumerated for transit, such as reduced energy consumption, enhanced air quality, and support for desired land use development patterns.

Table 6.2-3 compares total daily transit ridership among the alternatives. The Refined LPA, with the highest level of transit service, is forecast to attract the most transit ridership.

TABLE 6.2-3
RIDERSHIP FORECASTS ISLANDWIDE (FORECAST YEAR 2025)

	No-Build	TSM	Refined LPA
Total Transit Trips (Daily Linked Trips)	261,130	279,400	312,570
New Transit Trips compared with No-Build	Not Applicable	18,270	51,440
New Transit Trips compared with TSM	Not Applicable	Not Applicable	33,170
Transit Mode Share:			
All Trip Purposes	6.6%	6.9%	7.9%
Work Trips	14.7%	15.7%	18.4%

Source: Parsons Brinckerhoff, Inc., October 2002.

Transit mode share is the proportion of total trips taken on the transit system, indicating the contribution of the transit system towards satisfying total travel demand. The higher the transit mode share, the fewer the automobiles that will be on the roads. The Refined LPA would result in increased transit mode share, compared to the other alternatives. As shown in Table 6.2-4, the advantages of improved transit service with the Refined LPA are even more pronounced within the primary transportation corridor, as evidenced by the even higher transit mode split within the corridor compared to islandwide.

TABLE 6.2-4
TRANSIT RIDERSHIP WITHIN THE PRIMARY TRANSPORTATION CORRIDOR
(DAILY LINKED TRIPS IN 2025)

	No-Build	TSM	Refined LPA
Total Transit Trips	202,000	216,130	234,390
Transit Mode Share:			
All Trip Purposes	8.5%	8.7%	10.0%
Work Trips	19.2%	19.5%	22.6%

Source: Parsons Brinckerhoff, Inc., October 2002.

3) Reduced Traffic Congestion

Restoring a balance between automobile, transit, pedestrian and bicycle modes is a prime objective within the primary transportation corridor. Transit improvements would encourage some people to modify their travel behavior by switching from private automobiles to transit, thereby decreasing traffic congestion. Vehicle Miles of Travel (VMT) is a measure of roadway congestion. Higher VMT reflects more vehicle trips made (higher roadway demand and more congestion), and more circuitous travel as drivers "hunt" for less congested routes. The search for less congested routes affects neighborhoods, as streets meant to accommodate local traffic become through traffic routes as drivers seek ways to avoid congestion on major arterial roadways. Table 6.2-5 shows that in 2025, the Refined LPA (which would provide the highest level of transit service) is projected to have the lowest peak period VMT compared to the other alternatives.

TABLE 6.2-5
PROJECTED YEAR 2025 PEAK PERIOD VMT AND VHD

Measure	Time Period	Alternative		
		No-Build	TSM	Refined LPA
VMT	A.M.	5,145,570	5,133,800	4,893,630
	P.M.	5,596,345	5,587,195	5,361,660
	Total Peak	10,741,915	10,720,995	10,255,290
VHD	A.M.	177,750	173,015	145,470
	P.M.	192,890	184,155	156,020
	Total Peak	370,640	357,140	301,760
Vehicle Trips Assigned	A.M.	555,140	554,970	535,040
	P.M.	660,150	660,250	641,125
	Total Peak	1,215,290	1,215,220	1,176,165

Source: Parsons Brinckerhoff, Inc. October 2002.
Notes: VMT = vehicle miles of travel
VHD = vehicle hours of delay

Lower peak period VMT for the Refined LPA reflects increased use of travel modes such as transit as opposed to single-occupant vehicles (SOVs), and less congestion on roadways. This finding is consistent with the fewer vehicle trips projected to occur with the Refined LPA (because there are more transit trips) than with the TSM or No-Build Alternatives.

Another indicator of regional roadway performance is Vehicle Hours of Delay (VHD), which is the difference in hours of travel between that associated with free-flow traffic conditions, and that associated with projected roadway congestion levels (see Table 6.2-5). Lower VHD indicates that the roadway network is handling travel demand more efficiently, with less aggravation and frustration for travelers. The Refined LPA and TSM

Alternative are projected to have lower daily VHD than the No-Build Alternative in 2025. While the Refined LPA would provide a greater person-carrying capacity than the TSM or No-Build Alternatives, it would also result in less VHD for motorists than the TSM Alternative since some general-purpose traffic lanes would be converted to provide priority for transit vehicles.

4) Improvement to Other Level of Service Indicators

The ridership forecasting results can be used to compute several other indicators of the level of service provided by each alternative. These measures are presented in Table 6.2-6 and discussed below.

TABLE 6.2-6
OTHER MEASURES OF SERVICE
(FORECAST YEAR 2025)

Measure	No-Build	TSM	Refined LPA
Boardings per Linked Trip (Transfer Rates)	1.29	1.33	1.38
Passenger per Seat at Peak Load Point (Comfort)	1.31	1.01	0.90

Source: Parsons Brinckerhoff, Inc., October 2002.

One level of service indicator is the transfers a typical rider must make to complete a trip. Riders prefer not to transfer, unless transferring produces a shorter total travel time. In Table 6.2-6, the transfers are reflected by the boardings per linked transit trip. The Refined LPA would require the greatest amount of transferring because many riders would access the BRT systems by feeder bus. In the No-Build and TSM Alternatives, more riders would have a one-seat ride from origin to destination. The additional transferring in the Refined LPA would be offset, however, by the more frequent, more comfortable, and more reliable service provided, and in many cases, by a shorter total travel time. The Refined LPA would provide the most travel time savings for transit patrons.

Since transit service in mixed traffic is subject to delays caused by traffic congestion, transit service reliability is correlated to the extent the system utilizes exclusive travel lanes (which would not be affected by the congestion in general purpose lanes). Since the Refined LPA would provide substantially more priority transit lanes, it would offer the most reliable service.

One measure of comfort is the probability of getting a seat on a transit vehicle during the peak hour. As shown in Table 6.2-6, the projected ridership in 2025 will exceed available seats by over 30 percent under the No-Build Alternative. Over 30 percent of all riders would be required to stand, sacrificing comfort and decreasing the attractiveness of travel by transit. Worse, buses would be full and pass by riders waiting at stops in some instances.

The available seats under the TSM Alternative would be about equal to the demand. On an average weekday, there would typically be a seat for every rider, even at the most heavily used parts of the system.

The available seats under the Refined LPA would be slightly greater than the demand, increasing the probability that a rider would find a seat and have a comfortable ride. The availability of surplus seats also reflects the ability of the Refined LPA to accommodate even further increases in ridership growth without having to increase the number of vehicles.

Support Desired Development Patterns

Chapter 5 provides detailed information on the growth-shaping attributes of the alternatives analyzed. The No-Build and TSM Alternatives would not encourage land use development in desired patterns or support implementation of an urban growth strategy that integrates land use and transportation elements.

The Refined LPA would substantially increase the people-carrying capacity within the corridor and help focus growth along the alignment of the In-Town BRT system. Because of the permanency of the fixed facilities that would be constructed under this Alternative, it would be highly effective in supporting implementation of an urban growth strategy that integrates land use and infrastructure planning. In combination with favorable land use policies it would help facilitate desired land use development patterns consistent with the vision for the island. Transit centers and transit stops would serve as focal points for transit-oriented development and would be designed to maintain or improve visual conditions through cohesively designed structures, street furniture, landscaping and lighting. The Refined LPA would improve the quality of urban living by enhancing transportation service within the Urban Core, and by reducing air and noise emissions in comparison to the diesel buses in the No-Build and TSM Alternatives. Because the Refined LPA would reduce automobile travel, regional air emissions would be less.

Improve the Transportation Linkage Between Kapolei and Honolulu's Urban Core

Improving connections within the primary transportation corridor, including the key linkage between Kapolei and Honolulu's Urban Core, is a principal project goal.

The Refined LPA would provide priority treatments in the H-1 Corridor, which would be used by vehicles with two or more occupants in addition to Regional BRT vehicles. This would enhance the linkage between Kapolei and the Urban Core for all higher occupancy vehicles. The benefits of the P.M. zipper lane, express lanes, and exclusive bus ramps with the Refined LPA are reflected in the reduced travel time for transit riders shown in Table 6.2-7.

TABLE 6.2-7
PROJECTED 2025 TRANSIT TRAVEL TIME FROM DOWNTOWN TO KAPOLEI

	No-Build	TSM	Refined LPA
Travel Time (minutes)	83.1	78.0	58.2

Source: Parsons Brinckerhoff, Inc., October 2002.

Improve the Transportation Linkages Between Communities in the PUC

Another project goal is to improve mobility within the PUC through enhanced transit service. The Refined LPA would attract additional transit riders by improving mobility within the PUC and strengthening the connections between the PUC and the rest of Oahu. This ridership increase reflects the service benefits – particularly reduced travel time – that such a system would provide in the primary transportation corridor. While the TSM Alternative would achieve some benefits, the benefits of a high capacity BRT system would be substantially greater, especially for travel within the PUC.

As shown by the travel times in Table 6.2-8, due to the provision of exclusive transit lanes, the Refined LPA would provide faster transit travel times (and more reliable service) within the PUC than either the TSM or No-Build Alternatives.

TABLE 6.2-8
PROJECTED 2025 TRANSIT TRAVEL TIME WITHIN THE PRIMARY URBAN CENTER

	No-Build Travel Time (minutes)	TSM Travel Time (minutes)	Refined LPA Travel Time (minutes)
Downtown - Waikiki	25.0	25.0	23.1
Downtown - UH-Manoa	24.4	23.3	22.6
Downtown - Kalihi	17.6	16.3	13.3

Source: Parsons Brinckerhoff, Inc., October 2002.

6.2.2 Impacts of Alternatives

This section summarizes the environmental consequences associated with the alternatives analyzed. Chapter 3 describes the existing environmental conditions and Chapter 5 provides more detailed information on the environmental impacts of the alternatives.

No-Build Alternative

The No-Build Alternative would rely on conventional diesel buses, at least for the immediate future, and continue the present focus on automobiles for transportation. Consequently, congestion would be the worst of any of the alternatives and regional air pollutant emissions would increase about 15-30 percent by 2025. Out of 23 intersections, localized air quality (worst-case 1-hour microscale concentrations) would deteriorate at ten locations studied in the a.m. and eleven locations studied in the p.m. Noise levels along streets would remain similar to present levels, even with an increase in the number of diesel buses and vehicles, because the vehicles would be moving more slowly ("passby" noise increases with speed).

The No-Build Alternative would not adequately support the purposes and needs of the project. It would not provide a transportation system that would effectively handle present or future levels of travel demand. It would not even maintain current mobility levels. It would not develop attractive travel alternatives to the private automobile, encourage land use development in desired patterns, support implementation of an urban growth strategy that integrates land use and infrastructure planning, nor maintain the existing quality of life. It would only minimally increase the linkage between Kapolei and the Urban Core, and would not improve mobility within the Urban Core. Impacts to ecosystems and visual, historic, water and park resources would generally be limited to localized impacts associated with the construction of roadway and other transportation improvements anticipated over the next 23 years. The No-Build Alternative would not require any business or residential displacements, although it would entail the displacement of four acres of farmland.

Because there would be no new federal construction funds beyond those already expected to be received through formula programs, the No-Build Alternative would produce no additional jobs.

TSM Alternative

Compared to the No-Build Alternative, the TSM Alternative, with its emphasis on enhancing and restructuring bus service, would provide some support to the project's purposes and needs in terms of enhancing people-carrying capacity within the corridor. However, this alternative would not go far in providing an attractive alternative to the private automobile, nor in enhancing desired land use development patterns or the City's urban growth strategy that integrates land use and infrastructure planning. There would be some improvement in the linkage between Kapolei and the Urban Core, but it would not significantly improve mobility within the Urban Core.

Without the implementation of significant transit-oriented infrastructures, transit operation under the TSM Alternative would not be able to maintain current mobility levels. Travel delays would be lengthy, and air pollution emissions would increase about 20 percent as a result of the increased diesel buses and private vehicle congestion associated with the TSM Alternative.

Impacts to neighborhoods, historic resources, ecosystems, noise levels, water resources, and parklands would be similar to those under the No-Build Alternative. The TSM Alternative would entail the displacement of up to four acres of agricultural land. Under the TSM Alternative, approximately 166 unrestricted parking spaces that are currently available during peak and off-peak hours would be eliminated. The TSM Alternative would not affect on-street restricted parking spaces. Fourteen (14) loading zones would be adversely affected.

Since there would be no FTA discretionary (New Starts) funding available for use with the TSM Alternative, there would be no additional jobs created beyond those that would occur with the normal in-flow of federal formula funds to the State.

Refined LPA

The Refined LPA would do the most to better serve existing transit riders and attract people out of their autos. Because the Refined LPA would reduce automobile travel, congestion and regional air emissions would be less. Also, the electric buses that will be used on the In-Town BRT would generally be quieter than conventional diesel buses. The Refined LPA represents a major improvement over the No-Build and TSM Alternatives in meeting the project purposes and needs. It would substantially increase people-carrying capacity within the corridor and help focus growth along the alignment of the In-Town BRT. Higher density redevelopment in a transit-supportive manner, particularly at transit centers and transit stops, would be encouraged. This alternative would be more effective than the TSM and No-Build Alternatives in supporting implementation of an urban growth strategy that integrates land use and infrastructure planning. It would help facilitate desired land use development patterns consistent with the vision for the island.

This alternative would establish transit as an attractive, viable alternative to the automobile. Transit patrons would reap travel time savings. The Refined LPA would cause less motorist delay than either the TSM or No-Build Alternative. The Refined LPA would establish an attractive, high capacity linkage between Kapolei and the Urban Core. It would improve mobility within the Urban Core by improving linkages between key destinations such as Downtown, Kakaako, Kalihi, UH-Manoa, and Waikiki, and would decrease transit travel times between these key destinations.

There would be no relocations of businesses or residents with the Refined LPA, though some partial displacements of driveways, parking, and/or landscaping will be necessary. Parking provided at transit centers and park-and-ride lots would be greater than with the TSM Alternative, as would the loss of on-street parking spaces and loading zones. Impacts on historic resources would be minor.

As part of the Refined LPA, transit centers, transit stops, and other project elements would be designed to maintain or improve visual conditions through cohesively designed structures, street furniture, landscaping and lighting. The quality of urban living would improve. Impacts to ecosystems, and water resources would be similar to that attributable to the No-Build and TSM Alternatives. Some trees will need to be relocated or replaced, but no exceptional trees will be affected.

The construction-phase impacts of the Refined LPA would be greater than those of the TSM Alternative because of the larger scale of construction. Construction impacts would be temporary and detailed mitigation plans will be developed, including a maintenance of traffic plan during the final design phase. The additional federal discretionary funds that would be provided under this alternative would create an estimated 2,787 person-years of new jobs during construction of which 1,106 would be for construction workers.

6.2.3 Cost-Effectiveness and Equity of Alternatives

Capital and operating/maintenance costs are addressed in Chapter 2 and earlier in this chapter. Cost-effectiveness, the measure used by FTA to compare the cost of a transit investment in relation to its ability to attract new riders to transit, is discussed in this section. This section also addresses equity, which is the distribution of costs, impacts and benefits.

Cost-Effectiveness Analysis

Cost-effectiveness relates the ability of an alternative to attract new riders to its costs. The FTA has established a cost-effectiveness index (CEI) for evaluating the relative merits of fixed guideway or transit lane alternatives within a corridor. The FTA also uses the index as input into its rating system, which compares projects across the country, and identifies those most worthy of federal funding. The CEI analysis is used by FTA for comparative purposes. It is not an absolute indicator of costs and benefits because of its narrow focus on projected new ridership. The index measures the additional cost of proposed transit investments, using the cost per additional rider projected under the No-Build and TSM Alternatives as the measure against which the Refined LPA is compared.

The cost-effectiveness analysis translates the capital costs of the alternatives into equivalent uniform annual costs. These uniform annual capital costs reflect assumptions about the economic life of the capital components of each alternative (based on federal guidelines) and the cost of capital (i.e., the discount rate). Uniform annual capital costs are combined with annual O&M expenses and then compared to additional transit patronage to arrive at a CEI for the alternatives.

Because all costs used in the analysis are in constant dollars, the effects of inflation are already taken into account; the discount rate used in the analysis is a "real" discount rate that reflects prevailing interest rates net of the effect of inflation. A real discount rate of 7 percent was used, which is FTA recommended practice.

Assumptions about the effective useful lives of major cost components correspond to the economic lives of the major categories of capital cost. The economic life of heavy construction items, for instance, is assumed to be 50 years, while buses and BRT vehicles are assumed to have a service life of 12 years before needing replacement.

When alternatives are compared using the CEI parameter, the one with the lower cost per new rider represents the more cost-effective alternative. As shown in Tables 6.2-9A and 6.2-9B, compared to the transit ridership that would be achieved with the No-Build Alternative, the incremental cost per new rider for the TSM Alternative is $6.25, which is greater than the cost per new rider for the Refined LPA of $5.01, also compared to the No-Build Alternative. Therefore, the Refined LPA is more cost-effective than the TSM Alternative in increasing transit ridership over the No-Build Alternative. Compared to the transit ridership that would be achieved with the TSM Alternative, the CEI of further boosting transit ridership to the level forecast to occur with the Refined LPA would be $4.52.

Equity/Environmental Justice

Equity is defined as the fairness of the distribution of costs, benefits, and impacts across various population subgroups. Fairness is determined by the extent to which the costs and impacts are distributed in a way that is consistent with regional goals.

TABLE 6.2-9A
FACTORS USED TO DEVELOP FTA COST-EFFECTIVENESS INDEX

Factor	Alternative		
	No-Build	TSM	Refined LPA
Annualized Capital Cost (2002 dollars)	$ 28,760,000	$ 37,910,000	$ 78,400,000
Total Systemwide Annual Operating and Maintenance Cost (2002 dollars)	$ 120,700,000	$ 139,800,000	$ 151,200,000
Total Annualized Cost in Forecast Year (2002 dollars)	$149,460,000	$ 177,710,000	$ 229,600,000
Total Annual Ridership (forecast year)	80,428,040	86,055,200	96,271,560

Source: Parsons Brinckerhoff, Inc., October 2002.

TABLE 6.2-9B
FTA COST-EFFECTIVENESS INDEX

Factor	Comparison		
	TSM vs. No-Build	Refined LPA vs. No-Build	Refined LPA vs. TSM
Incremental Annualized Cost	$ 28,000,000	$80,000,000	$ 52,000,000
Incremental Annual Ridership	6,000,000	16,000,000	10,000,000
Cost-Effectiveness (incremental cost per new rider)	$ 6.25	$ 5.01	$ 4.52

Source: Parsons Brinckerhoff, Inc., October 2002.

1) Impact on Low Income Areas

Certain areas within the primary transportation corridor contain concentrations of minority and low-income populations (see Section 5.3 which discusses the project's Environmental Justice compliance in more detail). Input from community residents and business owners serving the minority and low-income populations has been actively solicited throughout project planning through the community based planning program (see Appendix A). None of the alternatives would cause a disproportionately high and adverse health or environmental effect on any population group, including minority and low-income populations. Benefits to these groups would be substantial.

2) Environmental/Socioeconomic Equity and Benefit

An analysis of equity and benefit from an environmental and socioeconomic perspective was developed based on the relative balance between environmental and/or socioeconomic impacts and change in transit accessibility. The Refined LPA would result in improved transit accessibility islandwide relative to the No-Build and TSM Alternatives. The Refined LPA would increase daily transit trips by 19.7 percent over the No-Build Alternative. The Refined LPA is projected to produce a 10.6 percent increase in daily transit trips over the TSM Alternative.

The Refined LPA would provide greater support for desired land use development patterns in comparison to the No-Build and TSM Alternatives.

3) Local Financing Options Equity and Burden

Earlier in this chapter the financing plans for the alternatives were discussed. No new local revenue sources or tax increases would be required for any alternative. The City would provide its portion of the local funding with existing City funding lines and General Obligation (GO) bonds. FTA formula and discretionary grants also would be used. Transit related components on State highway facilities would be funded with federal highway funds and a local city match.

No geographic or socioeconomic group would pay a disproportionate share of the project's costs.

6.3 REQUIRED PERMITS AND APPROVALS

Table 6.3-1 lists the permits or approvals that may be required by alternative. At this point in project planning, the permit applications have not been completed or submitted to the appropriate agencies. Permit applications will be completed during the project's final design phase.

TABLE 6.3-1
PERMITS POTENTIALLY REQUIRED

PERMIT	ALTERNATIVE		
	No-Build	TSM	Refined LPA
Federal			
U.S. Coast Guard – Bridge Permit			X
U.S. Department of Transportation Notice of Proposed Construction Near Airports			X
U.S. Department of Transportation FHWA Approval of Modifications Within Limits of Interstate Highways			X
U.S. Army Corps of Engineers – Clean Water Act Section 404 permit (Nationwide)			X
State			
State Department of Transportation Permit to Perform Work Upon a State Highway			X
State Department of Health Clean Water Act Section 401 Water Quality Certification			X
State Department of Health Noise Permit/Variance	X	X	X
National Pollutant Discharge Elimination System (NPDES) Permit - Stormwater Associated with Construction Activity	X	X	X
Commission on Water Resource Management – Stream Channel Alteration Permit			X
Disability and Communication Access Board Approval		X	X
County			
Special Design District Permit			X
Zoning Waivers for Public Uses, Public Utilities and Walls			X
Building Permit		X	X
Development Application in Flood Hazard Districts			X
Special Management Area Use Permit			X
Construction Dewatering Permit (Temporary)	X	X	X
Grubbing, Grading, Excavation, and Stockpiling Permit		X	X
Street Tree Review	X	X	X
Permit to Excavate on Public Right-of-Way (Trenching)		X	X
Street Usage Permit	X	X	X

Source: Parsons Brinckerhoff, Inc., April 2003.

Chapter 7.0

Comments and Responses

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CHAPTER 7 COMMENTS AND RESPONSES

7.0 OVERVIEW

This Chapter presents a record of the comments received on the Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) [August 2000] and the Supplemental Draft Environmental Impact Statement (SDEIS) [March 2002] during the public comment period and responses to those comments. Written and oral comments provided at the respective public hearings have been included. Revisions have been made to the Final Environmental Impact Statement (FEIS) text and graphics as a result of these comments. A vertical black line in the right margin throughout the FEIS indicates these changes and other technical changes

7.1 PUBLIC REVIEW PROCESS

7.1.1 MIS/DEIS Public Review Process

The formal public hearing for the MIS/DEIS was held on Thursday, October 12, 2000 at the Hawaii Suites, Neal Blaisdell Center, 777 Ward Avenue, Honolulu, Hawaii. The Federal Transit Administration (FTA) approved the project's MIS/DEIS for public circulation on August 16, 2000. The Hawaii Office of Environmental Quality Control (OEQC) also approved the document for public distribution. Printed copies of the document were distributed to the public, libraries, community groups, and local, State and federal agencies for review. A separate volume of technical drawings was available for public examination at libraries and the Department of Transportation Services (DTS) and was also available upon request. The document, including the technical drawings, was also available on CD-ROM upon request. Those who submitted comments on the Notice of Intent to Prepare an EIS (NOI) published in accordance with the National Environmental Policy Act (NEPA), or the Environmental Impact Statement Preparation Notice (EISPN), published in accordance with Chapter 343, Hawaii Revised Statutes, were also sent printed copies.

Notices of the availability of the MIS/DEIS and information on the public hearing were provided through direct mailings (about 10,000 addresses); a legal notice in Midweek; and display advertisements in Midweek, the Honolulu Advertiser, and the Honolulu Star-Bulletin. The availability of the document was also given substantial media coverage including coverage by local television stations.

7.1.2 SDEIS Public Review Process

The FTA approved the SDEIS for public circulation on March 5, 2002. The State of Hawaii, Office of Environmental Quality Control (OEQC) approved the SDEIS for distribution on March 12, 2002. SDEIS printed copies were distributed to the public, libraries, community groups, and local, State, and federal agencies for review and comment by March15, 2002. The SDEIS was also available on CD-ROM upon request and placed on the project website (www.oahutrans2k.com). People and agencies who submitted comments on the MIS/DEIS and the Notice of Intent to Prepare a SDEIS, published in accordance with the National Environmental Policy Act (NEPA), and the Environmental Impact Statement Preparation Notice (EISPN), published in accordance with Chapter 343, Hawaii Revised Statutes, were also sent printed copies.

The SDEIS Notice of Availability (NOA) was published in the March 22, 2002 Federal Register and March 23, 2002 The Environmental Notice. The SDEIS NOA and public hearing information were advertised in the Honolulu Star-Bulletin, and the project newsletter (Project Report No. 7), which was mailed to approximately 10,000 addresses. Also, between April 12, 2002 and April 19, 2002 several advertisements were published in The Honolulu Advertiser, and Honolulu Star-Bulletin. The SDEIS availability was given substantial media coverage particularly in local newspapers.

AR00015343

The SDEIS public hearing was held on Saturday, April 20, 2002 at the Hawaii Convention Center, from 9 a.m. until approximately 3 p.m.

7.2 COMMENTS RECEIVED

For the MIS/DEIS, 152 comment letters were received from federal, state, and local agencies; elected officials; neighborhood boards; businesses; civic organizations; and citizens. Twenty-three people presented oral testimony at the MIS/DEIS public hearing. At the special City Council Transportation Committee public hearings, 86 people presented oral and/or written testimony regarding the project.

For the SDEIS, 95 comment letters were received and 63 people gave oral testimony at the public hearing.

Many comments received expressed support or opposition to a particular alternative. Numerous substantive comments were also received during the MIS/DEIS and SDEIS public comment periods. The most frequently expressed concerns related to the following issues:

1. Costs and methods of financing a BRT alternative;
2. Traffic and transportation issues;
3. Community and social concerns; and
4. Anticipated ridership.

Table 7.2-1 lists the agencies, organizations, etc. that commented on either the MIS/DEIS and/or SDEIS. The comment letters received and response letters prepared for both written and oral comments received on the MIS/DEIS and SDEIS follow the order shown in Table 7.2-1.

TABLE 7.2-1
MIS/DEIS AND SDEIS COMMENTERS

Commenter	MIS/DEIS	SDEIS
Federal Agencies		
U.S. Department of Agriculture, Natural Resources Conservation Service	X	
U.S. Department of the Army, Army Engineer District, Honolulu	X	X
U.S. Department of the Navy, Commander, Navy Region Hawaii	X	
U.S. Department of the Air Force, Pacific Air Forces		X
U.S. Department of the Interior, National Park Service	X	
U.S. Environmental Protection Agency	X	X
State Agencies		
Department of Accounting and General Services		X
Department of Business, Economic Development & Tourism (DBEDT), Housing and Community Development Corporation of Hawaii	X	
DBEDT Land Use Commission	X	
DBEDT Research and Economic Analysis Division	X	
Department of Education	X	X
Department of Health	X	X
Department of Land and Natural Resources (DLNR), Historic Preservation Division	X	
DLNR Land Division	X	X
Department of Transportation	X	X
Hawaii Community Development Authority		X
Office of Environmental Quality Control	X	X
Office of Hawaiian Affairs	X	X
University of Hawaii, Senior Vice President for Administration	X	
University of Hawaii, Environmental Center	X	X

TABLE 7.2-1
MIS/DEIS AND SDEIS COMMENTERS (CONT.)

Commenter	MIS/DEIS	SDEIS
City and County Departments		
Board of Water Supply	X	X
Department of Design and Construction		X
Department of Environmental Services	X	
Department of Facility Maintenance	X	
Department of Parks and Recreation	X	X
Department of Planning and Permitting	X	
Department of Transportation Services, Committee for Accessible Transportation	X	
Fire Department	X	X
Mayor's Advisory Committee on Bicycling	X	
Police Department	X	
Transportation Commission	X	
Elected Officials		
Honorable Daniel K. Akaka, U.S. Senator		X
Honorable Carol Fukunaga, State Senator, 12th District	X	
Honorable Les Ihara, State Senator, 10th District	X	
Honorable Norman Sakamoto, 15th District		X
Honorable Charles K. Djou, State Representative, 47th District		X
Honorable Galen Fox, State Representative, 21st District		X
Honorable Darrlyn Bunda, City Councilmember, District 1	X	
Honorable Romy M. Cachola, City Councilmember, District 7	X	X
Honorable Gary H. Okino, City Councilmember, District 8		X
Neighborhood Boards and Community Groups		
Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board No. 5	X	
McCully/Moiliili Neighborhood Board No. 8	X	
Makiki/Lower Punchbowl/Tantalus Neighborhood Board No. 10	X	X
Ala Moana/Kakaako Neighborhood Board No. 11		X
Downtown Neighborhood Board No. 13	X	X
Waianae Coast Neighborhood Board No. 24	X	
Mililani/Waipio/Melemanu Neighborhood Board No. 25	X	
Kalihi-Palama Community Council	X	
Waipahu Community Association	X	
Organizations		
American Public Works Association, Hawaii Chapter		X
Building Industry Association of Hawaii	X	
Citizens Advocating Responsible Education (C.A.R.E.)	X	X
Consulting Engineers Council of Hawaii		X
General Contractors Association of Hawaii	X	
Hawaii Activities and Tours Association		X
Hawaii Attractions Association	X	
Hawaii Construction Industry Association	X	
Hawaii Hotel Association	X	
Hawaii Teamsters and Allied Workers, Local 996 (4 commenters)	X	X
Hawaii's Thousand Friends	X	
Hawaii Transportation Association	X	
Kapiolani Park Preservation Society		X
Laborers' International Union of North America, Local 368, AFL-CIO	X	
Land Use Research Foundation of Hawaii	X	X
The League of Women Voters of Honolulu	X	X
Leeward Oahu Transportation Management Association	X	

AR00015345

TABLE 7.2-1
MIS/DEIS AND SDEIS COMMENTERS (CONT.)

Commenter	MIS/DEIS	SDEIS
The Libertarian Party of Hawaii		X
Life of the Land	X	
Masons Union, Local #1 Hawaii, IUBAC, Local #630, OP & CMIA, AFL-CIO	X	
Na Leo Pohai, The Public Policy Affiliate of The Outdoor Circle	X	
The Outdoor Circle	X	X
Pacific Action Alliance		X
Pacific Resource Partnership	X	
Sierra Club, Hawaii Chapter	X	
Waikiki Improvement Association	X	X
Businesses		
Ala Moana Center	X	
Architects Hawaii Limited		X
Charley's Taxi	X	X
E Noa Corporation	X	X
The Estate of James Campbell	X	
Hawaiian Electric Company, Inc. (3 commenters)	X	X
Hilton Hawaiian Village (2 commenters)	X	
IND-COM Management	X	
Bobbie Jennings' Sports Network	X	
Oahu Transit Services, Inc.		X
Outrigger Enterprises, Inc.	X	
Paradise Cruise, Ltd.		X
Passport Railroad	X	
Pauahi Management Corporation	X	
Polynesian Adventure Tours	X	
SuperStar		X
T. Eki, Inc.,/Eki Cyclery	X	
Trans Hawaiian Services	X	
Verizon	X	
Victoria Ward, Limited	X	
York & Company, Inc.		X
Citizens		
Karl Adams & Mary Lou Zingalie-Adams	X	
Naomi Ahuna		X
David Aki		X
Ronald D. Armenoff, Tonja Taylor, & Patricia J. Ho	X	
David Atkin		X
Ella Autry	X	
Gary Bautista	X	
Kent Bennett	X	
Martha Black	X	
Sam Bren	X	X
Jeb P. Brown		X
Martin J. Burke	X	
Sam Caldwell	X	
Dennis Callan	X	
Charles H. Carole	X	X
Helen T. Carroll	X	X
Keith Chan	X	
Jimmy Chong	X	

TABLE 7.2-1
MIS/DEIS AND SDEIS COMMENTERS (CONT.)

Commenter	MIS/DEIS	SDEIS
Dave Chun	X	
Dave Kaulike Chun, Ron Lockwood, & Alfred Akana		X
Barbara J. Chung	X	
John Ciesla	X	
Victor & Marie Cole		X
Yolanda Coloma		X
Bruce Coppa	X	
Joseph Cordero		X
Roger Couture		X
Mary Cowing		X
Bill Craddick	X	
C.C. Curry	X	
Mike Dahilig		X
Beadie Kanahele Dawson	X	
Eve DeCoursey		X
John W. Dell	X	X
Betty Downing		X
Justin Enomoto		X
Wes Frysztacki		X
Alan Fujimori	X	
Albert Fukushima		X
Bennett Fung		X
Ciprie Galima		X
Larry Geller		X
Matt Gilbertson	X	
Burt Goldenberg	X	X
Frederick C. Gross	X	X
Raymond A. Gruntz		X
Jim Hall	X	X
Keith Hamada		X
Tom Heinrich	X	X
Kathleen Higa		X
Paul Honzik		X
Barbara L. Hudman		X
Larry Hurst		X
Ed Ige		X
Janet S. Inamine	X	X
Carl Jacobs	X	
Ambrose Keohu		X
Molly M. Kihara	X	
Erin Kilpatrick	X	
Amy Kimura	X	
Seiichi Kimura		X
Eric Koike		X
Melody M. Kubo		X
Bill Lane	X	
David Laughlin*	X	
Kathy Leong	X	
Paul T. Leong	X	
Randolph F. Leong	X	

TABLE 7.2-1
MIS/DEIS AND SDEIS COMMENTERS (CONT.)

Commenter	MIS/DEIS	SDEIS
Bill Leveau		X
Wendall Lum	X	X
Donald Mack	X	
Elizabeth Mack*	X	
Randall W. Mack	X	
Lee Manfredi	X	
Michelle Spalding Matson	X	X
David Maxwell		X
Laurie McCollum*		X
Helen McCune		X
Ed McInerny	X	
Kii McMannen	X	
V. McWaters		X
D. Meller	X	
Joe Miller	X	
J.T. Miller	X	
Mark A. Monoscalco		X
Jack Morse		X
Daisy M. Murai	X	X
Kevin Nakamoto		X
Stacey Namihira		X
Kim Nichols	X	
Bill Pelzer		X
Richard J. Port	X	
Glen Robinson	X	
Patrick Rorie	X	
Ann Ruby		X
Harrison Rue	X	
William Samaritano		X
Donald Samuel	X	
Noel Sario		X
Warren Sato		X
Janis Sauter	X	
Arun Savara		X
Thomas Schnell	X	
Cindy Schultz		X
Rod Schultz		X
Cliff Slater		X
Tom Smyth		X
Richard C. Stancliff	X	
David Stanton		X
Linda Starr	X	
Joel Stauring		X
Cheryl A. Stephenson		X
Dick Stephenson		X
Georgette Stevens-Begley	X	
Jane Sugimura	X	
Charles O. Swanson	X	
Allan Tagayuna		X
Henry Takahashi	X	

TABLE 7.2-1
MIS/DEIS AND SDEIS COMMENTERS (CONT.)

Commenter	MIS/DEIS	SDEIS
Clifton Takamura	X	X
Toshi Takata		X
Lee Takushi*		X
Claire Tamamoto	X	X
Calvin Tamaye	X	
Katsumi Tanaka		X
Lila Tarsey		X
Patty Teruya	X	
Baki Thomas		X
Robert Thomas		X
Steve Tierney	X	
Maeda Timson	X	
Howard Tocman	X	
Dean Uchida		X
Jon von Kessel	X	
Lea Sasak Watts		X
LaVonne West		X
Dan Withrow		X
Greg Wonghan		X
Louis Xigogianis		X
Ron York		X
Joseph W.C. Young	X	
Pam Young	X	

Source: Parsons Brinckerhoff, September 2002.

Note: *Commenter's address was not provided and could not be obtained. Therefore, DTS was not able to mail the responses provided in this FEIS to the commenter.

Chapter 7.0

Comments and Responses
Federal Agencies

United States
Department of
Agriculture

Natural
Resources
Conservation
Service

P.O. Box 50004
Honolulu, HI
96850

Our People...Our Islands...In Harmony

October 2, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Reference no. TPD00-00418 – Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) – Primary Corridor Transportation Project, Ewa, Oahu

We have reviewed the above mentioned document and have no comments to offer at this time.

Thank you for the opportunity to review this document.

Sincerely,

KENNETH M. KANESHIRO
State Conservationist

Cc:
Governor, State of Hawaii, c/o Office of Environmental Quality Control, 235 S. Beretania Street, Suite 702, Honolulu, Hawaii 96813
Mr. Robert Bramen, Project Manager, Parsons Brinckerhoff Quade and Douglas, Inc., Pacific Tower, Suite 3000, 1001 Bishop Street, Honolulu, HI 96813

The Natural Resources Conservation Service works hand-in-hand with the American people to conserve natural resources on private lands.

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DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD10/00-04817R

November 13, 2002

Mr. Kenneth M. Kaneshiro
State Conservationist
United States Department of Agriculture
Natural Resources Conservation Service
P.O. Box 50004
Honolulu, Hawaii 96850

Dear Mr. Kaneshiro:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). Your October 2, 2000 letter stated that you had no specific comments. We appreciate your taking the time to review the MIS/DEIS.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF

September 13, 2000

Regulatory Branch

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

This letter responds to your request, dated August 24, 2000, for our review and comments on the Major Investment Study/Draft Environmental Impact Statement for the Primary Corridor Transportation Project.

It is possible that some of the components of the project may require a Department of the Army (DA) permit; however, since the information provided is not sufficiently detailed to determine specific permit requirements. As the project elements progress to final design stages, we will be better able to advise you concerning permit requirements.

If you have any questions concerning this matter, please contact William Lennan of my staff at 438-6986 or FAX 438-4060, and reference File No. 990000338.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF

March 18, 2002

Regulatory Branch

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Thank you for the opportunity to review the Supplemental Draft Environmental Impact Statement for the Primary Corridor Transportation Project, dated March 2002. The comments contained in my letter to you dated September 13, 2000 are still appropriate, and we have no additional comments.

If you have any questions concerning this matter, please contact William Lennan of my staff at 438-6986 or FAX 438-4060, and reference File No. 990000338.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

Copy furnished:
Ms. Genevieve Salmonsom, Director, Office of Environmental Control, State of Hawaii, 235 South Beretania Street, Suite 702, Honolulu, HI 96813

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD9/00-04513R

November 13, 2002

Mr. George P. Young, P.E.
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Dear Mr. Young:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and the Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your September 13, 2000 letter regarding the Major MIS/DEIS and Part B responds to your March 18, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *It is possible that some of the components of the project may require a Department of the Army (DA) permit; however, since the information provided is not sufficiently detailed to determine specific permit requirements. As the project elements progress to final design stages, we will be better able to advise you concerning permit requirements.*

   Response: Coordination with the Army is continuing and at this time we do not believe the project will require a DA permit.

Part B – SDEIS Comments

2. *Thank you for the opportunity to review the Supplemental Draft Environmental Impact Statement for the Primary Corridor Transportation Project, dated March 2002. The comments contained in my letter to you dated September 13, 2000 are still appropriate, and we have no additional comments.*

   Response: Coordination with the Army is continuing and at this time we do not believe the project will require a DA permit. The FEIS does identify the required permits.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under seperate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF THE NAVY
COMMANDER
NAVY REGION HAWAII
517 RUSSELL AVENUE, SUITE 110
PEARL HARBOR, HAWAII 96860-4884

IN REPLY REFER TO:
5090
Ser N465/16529
03 NOV 2000

City and County of Honolulu
Department of Transportation Services
Pacific Park Plaza
711 Kapiolani Blvd, Suite 1200
Honolulu, HI 96813

Dear Sir or Madam:

Thank you for inviting us to participate in reviewing and commenting on the draft EIS for the "Primary Corridor Transportation Project" on the island of O'ahu, Hawaii.

At this time, we have no comments. We understand that this project will not impact any federal government properties.

If have any further questions or concerns, please contact Ms. Amanda Mano'i at 471-1171 ext. 223.

Sincerely,

R. M. WAKUMOTO
Director
Regional Environmental Department
By direction of
Commander, Navy Region Hawaii

Copy to: Governor, State of Hawaii c/o Office of Environmental Quality Control
Parsons Brinckerhoff Quade and Douglas, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05409R

November 13, 2002

Commanding Officer
Navy Region Hawaii, Environmental Department
Code N465
517 Russell Avenue, Suite 110
Pearl Harbor, Hawaii 96860

Attention: Mr. Ralph Wakumoto

Dear Sir:

Subject: Primary Corridor Transportation Project

This is in response to your November 3, 2000 letter, which provided us with comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

> *"At this time, we have no comments. We understand that this project will not impact any federal government properties."*
>
> Response: The proposed project will not effect any Navy properties. We appreciate you reviewing the MIS/DEIS.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF THE AIR FORCE
PACIFIC AIR FORCES

MEMORANDUM FOR Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

07 MAY 2002

MAY 7 2002

FROM: 15 CES/CE-2
75 H Street
Hickam AFB, HI 96853-5233

SUBJECT: Review of Supplemental Draft Environmental Impact Statement (DSEIS) for Primary Corridor Transportation Project

1. Thank you for the opportunity to comment on the subject document. The Air Force is interested in the primary corridor transportation system for two reasons:

   a. Transportation for our residents and personnel on Hickam AFB
   b. Security

2. According to subject document and confirmed by Ms. Faith Miyamoto from the City and County Department of Transportation Services, transportation to and from Hickam AFB will not change. The primary public transit will continue to be the current bus route number 19. This is both positive and negative. It will not raise any additional security concerns for Hickam AFB, but it will not improve traveling to and from Hickam AFB. We hope that there would be a transit stop in the vicinity of the airport and Elliot Street for a new more direct rapid transit system along the main corridor from near the Hale Koa in Waikiki, past downtown to the Airport, Hickam AFB and Pearl Harbor. To use the proposed Bus Rapid Transit System, personnel at the Hale Koa Hotel would have to transfer at Middle Street, or go past Hickam AFB to Aloha Stadium and transfer there. This defeats the purpose of the system and most would continue to take the circuitous bus route 19 rather than transferring. It also appears that an additional on-grade system within existing traffic arteries would snarl traffic. A grade separated rapid transit system along the primary corridor would not snarl traffic and would not be delayed by other traffic.

3. The subject document does not address traffic delays caused by the need for increased security at the airport and military installations. Current planning should be updated to accommodate for needs prompted by increased security. Access ways to military installations need to be modified and provide for security checks, parking, and ability to turn vehicles around.

4. Finally, bypasses are needed for key interchanges like the H-1/H-2 merge where a single accident can shut down both highways.

5. If you have any questions please contact our Environmental Planning Element Chief, Mr. Gary O'Donnell, AIA at 449-1584, extension 245.

Marc M. Aoyama

MARC M. AOYAMA, P.E.
Deputy Base Civil Engineer
15th Civil Engineer Squadron

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPDS/02-01831R

November 13, 2002

Mr. Marc M. Aoyama, P.E.
Deputy Base Civil Engineer
Department of the Air Force
Pacific Air Forces
15 CES/CE-2
75 H Street
Hickam AFB, Hawaii 96853-5233

Dear Mr. Aoyama:

Subject: Primary Corridor Transportation Project

This is in response to your May 7, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS). We have the following responses:

1. *Thank you for the opportunity to comment on the subject document. The Air Force is interested in the primary corridor transportation system for two reasons:*
   a. *Transportation for our residents and personnel on Hickam AFB*
   b. *Security*

   Response: Thank you for reviewing the SDEIS and submitting comments.

2. *According to subject document and confirmed by Ms. Faith Miyamoto from the City and County Department of Transportation Services, transportation to and from Hickam AFB will not change. The primary public transit will continue to be the current bus route number 19. This is both positive and negative. It will not raise any additional security concerns for Hickam AFB, but it will not improve traveling to and from Hickam AFB. We hope that there would be a transit stop in the vicinity of the airport and Elliot Street for a new more direct rapid transit system along the main corridor from near the Hale Koa in Waikiki, past downtown to the Airport, Hickam AFB and Pearl Harbor. To use the proposed Bus Rapid Transit System, personnel at the Hale Koa Hotel would have to transfer at Middle Street, or go past Hickam AFB to Aloha Stadium and transfer there. This defeats the purpose of the system and most would continue to take the circuitous bus route 19 rather than transferring. It also appears that an additional on-grade system within existing traffic arteries would snarl traffic. A grade separated rapid transit system along the primary corridor would not snarl traffic and would not be delayed by other traffic.*

   Response: The proposed Bus Rapid Transit system cannot provide high speed linkages everywhere. The City will continue to work with the Air Force and other branches of the military to maintain and improve bus service to major military employment sites.

3. *The subject document does not address traffic delays caused by the need for increased security at the airport and military installations. Current planning should be updated to accommodate for needs prompted by increased security. Access ways to military installations need to be modified and provide for security checks, parking, and ability to turn vehicles around.*

   Response: The need for increased security has been taken into account wherever the BRT alignment is in the vicinity of a military installation. The Lupepe Drive ramp will have required security fencing to ensure that it does not compromise the integrity of the current fencing at the Navy's Makalapa site. At Fort DeRussy the BRT stops will be the proper security distance from the Hale Koa Hotel.

4. *Finally, bypasses are needed for key interchanges like the H-1/H-2 merge where a single accident can shut down both highways.*

   Response: Widening of the H-2 /H-1 town bound connector ramp to permit a continuation of the P.M. zipper into the H-2 mauka bound HOV lane will provide a path for BRT buses and other P.M. zipper lane users around potential blockages at the Waiawa Interchange.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

United States Department of the Interior
NATIONAL PARK SERVICE
Pacific Great Basin Support Office
600 Harrison Street, Suite 600
San Francisco, California 94107-1372

IN REPLY REFER TO:
L3217(PGSO/PP)

September 6, 2000

Ms. Cheryl D. Soon
City and County of Honolulu
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Subject: Primary Corridor Transportation Project - Aloha Stadium (N-HI 495A)

Dear Ms. Soon;

The National Park Service is in receipt of your recent letter regarding the subject project proposal for the development of a park and ride/transit station facility on former federal property now containing the overflow parking area for Aloha Stadium. The former Halawa Alea Veterans Housing Area was transferred to the City and County of Honolulu in June 1967 for park and recreation use by the General Services Administration under the authority of the Federal Property and Administrative Services Act. The city's application for public benefit conveyance of the property identified the current stadium as the proposed recreation use. In October 1970 the City and County of Honolulu transferred the former federal property to the State of Hawaii, with the Department of Interior concurrence. Under the terms of the 1967 federal quitclaim deed and the October 1970 deed to the State of Hawaii, the property "shall be continuously used and maintained as and for public park and recreation uses".

Based upon the information provided within the letter and the *Major Investment Study/Draft Environmental Impact Statement (August 2000)* for the subject project, we find the proposed park and ride/transit facilities would not detract from the ongoing recreation use on the former federal property or represent a breach of the deeds transferring the property. We understand the proposed facilities would require the improvement of approximately half of the overflow parking area and the use of the parking area by commuters is unlikely to overlap with major scheduled events at the stadium. The proposed parking lot improvement and enhanced transit connections are viewed as a benefit to stadium users.

We could find no records indicating prior Land and Water Conservation Fund (LWCF) grant improvements on the subject property. Only properties acquired or developed with LWCF grants are subject to Section 6(f)(3) protection and conversion requirements requiring substitution of converted parkland with land of equal market value, location, and utility.

The National Park Service reserves final comment on the Section 4(f) evaluation pending a formal request by the Federal Highway Administration. If you have any questions, please do not hesitate to contact me at 415-427-1445.

Sincerely,

Gary Munsterman
Federal Lands to Parks Program Coordinator

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD9/00-4380R

Mr. Gary Munsterman
Federal Lands to Parks Program Coordinator
United States Department of the Interior
National Park Service
Pacific Great Basin Support Office
600 Harrison Street, Suite 600
San Francisco, California 94107-1372

Dear Mr. Munsterman:

Subject: Primary Corridor Transportation Project

This responds to your September 6, 2000 letter, which provided comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Based upon the information provided within the letter and the Major Investment Study/Draft Environmental Impact Statement (August 2000) for the subject project, we find the proposed park and ride/transit facilities would not detract from the ongoing recreation use on the former federal property or represent a breach of the deeds transferring the property.*

   Response: Thank you for this information.

2. *We understand the proposed facilities would require the improvement of approximately half of the overflow parking area and the use of the parking area by commuters is unlikely to overlap with major scheduled events in the stadium. The proposed parking lot improvement and enhanced transit connections are viewed as a benefit to stadium users.*

   Response: Thank you for your support.

3. *We could find no records indicating prior Land and Water Conservation Fund (LWCF) grant improvements on the subject property. Only properties acquired or developed with LWCF grants are subject to Section 6(f)(3) protection and conversion requirements requiring substitution of converted parkland with land of equal market value, location and utility.*

   Response: Thank you for this information.

4. *The National Park Service reserves final comment on the Section 4(f) evaluation pending a formal request by the Federal Highway Administration.*

   Response: The project does not involve Section 4(f) uses. Therefore, a Section 4(f) evaluation was not completed for the Final Environmental Impact Statement (FEIS).

We will send you a copy of the FEIS under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Cheryl Soon, Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

The Environmental Protection Agency (EPA) has reviewed the Major Investment Study/Draft Environmental Impact Statement for the **Primary Corridor Transportation Project**, Honolulu, Hawaii (CEQ# 000311, ERP# FTA-K40241-HI). Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and Section 309 of the Clean Air Act (CAA).

The proposed project is for transportation improvements in Oahu's primary transportation corridor, which stretches from Kapolie in the west and Waikiki in the east, and to improve connections between the primary transportation corridor and the rest of the island. Three alternatives are presented in the Draft Environmental Impact Statement (DEIS), 1) No-Build Alternative, 2) Transportation System Management (TSM) Alternative, and 3) Bus Rapid Transit (BRT) Alternative. The primary feature of the TSM alternative is the reconfiguration of the present bus route network to a hub-and-spoke network, including the development of transit centers. "Bus priority measures,"also a component of the TSM alternative, are intended to speed bus movement at key locations. The "bus priority measures" include the development of semi-exclusive bus lanes, bus priority lanes, que jump lanes, a new freeway ramp, the extension of a zipper lane, and road widening to accommodate new express lanes for buses. The BRT alternative builds on the TSM alternative by providing exclusive, or semi-exclusive, transit lanes for regional and In-Town buses. Regionally, an uninterrupted transitway is created along the H-1 freeway. In-Town, electric BRT vehicles would operate at-grade in exclusive lanes along major arterials. A preferred alternative has not been selected.

There are a number of components of the proposed project that reflect a strong environmental protection and sustainable development ethic. EPA is highly supportive of the Purpose and Need statements, "*1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile*" and "*2. Support desired development patterns,*" which include integrated land use and transportation planning designed to reinforce community livability. One of the goals of this project is to shift from auto-oriented, dispersed, single-use development to a land use pattern with a mix of activities that promotes walking and that focuses on a central transit system. EPA applauds the City and County of Honolulu and its State and federal partners for its forward-thinking approach to transportation management in metropolitan Honolulu. If successful, EPA believes this project could set an example for other metropolitan areas in the U.S.

In our review, we found that the document adequately addressed major areas of environmental concern. We have rated each alternative, *LO – Lack of Objection*. (Please see the enclosed rating sheet for further explanation of the rating system.) We believe, however, that there are opportunities to improve the document for the benefit of the public and decision makers. Specifically,

Southern Oahu Basal Aquifer (SOBA)
The DEIS states that because the SOBA is a designated sole-source aquifer, EPA will require a water quality assessment (under Section 1424(e) of the Safe Drinking Water Act) to determine the impact on the quality of the groundwater in the SOBA. The DEIS also states that coordination with EPA to complete the water quality assessment is on-going (pp.5-59,60). However, this statement is premature. Coordination with EPA on the SOBA water quality assessment has not been initiated.

- *Recommendation*: The EIS should clearly state the nature and timing of coordination with EPA on SOBA water quality assessment.

TSM Transit Technology
Under the TSM alternative mini-buses "could" use alternative fuel sources, and standard buses would use diesel or diesel/electric hybrids (p. 2-15). By comparison, the BRT alternative will *require* the use of electric or hybrid/electric vehicles for the In-Town BRT system (pp.2-30 to 2-32).

- *Recommendation*: EPA strongly recommends that the City and County of Honolulu commit to using the least polluting fuel sources/technology available for the TSM alternative, as the City has done for the BRT alternative.

BRT Impact to Local Street Network
A Vehicle Screenline Analysis has been performed for the BRT alternative (p. 4-12 to 4-15) using thirteen screenlines established in the project area from Kapolie to Waikiki. The purpose of this analysis is to evaluate roadway mobility by comparing traffic volume to roadway capacity. The DEIS states, very generally, that the screenline analysis indicates that by 2025 in all alternatives, major roadways will still have traffic bottlenecks, as they do today (p. 4-12). The DEIS does not speak, specifically, to the impact of the removal of currently used lanes of traffic for exclusive use by the In-Town BRT system. As exclusive lanes are dedicated for the In-Town BRT system, drivers may choose to use the local street network and avoid arterial streets. This could lead to congestion on local streets and air quality "hot spots."

- *Recommendation*: Specifically address the traffic impacts on the local street network that result from the removal of traffic lanes for exclusive bus use in the In-Town project area. Describe any needed mitigation measures.

We have had the opportunity to discuss these issues with Faith Miyamoto, Department of Transportation Services, and have shared some of our suggestions with her.

We appreciate the opportunity to review this Draft EIS. When the Final EIS is completed, please send two copies to me at the address above. If you have any questions or comments, please feel free to contact me or Nova Blazej, the primary staff person working on this project. Nova can be reached at 415-744-2089 or *blazej.nova@epa.gov*.

Sincerely,

David J. Farrel, Chief
Federal Activities Office

cc: Donna Turchie, FTA
Leslie Rogers, FTA
Laura Kong, FHWA

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

AR00015359

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

May 6, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, HI 96813

Dear Ms. Soon:

The Environmental Protection Agency (EPA) has reviewed the Supplemental Draft Environmental Impact Statement (SDEIS) for the **Oahu Primary Corridor Transportation Project, Updated Information on the Refined Bus Rapid Transit (BRT) Alternative, Major Investment Study, in the City and County of Honolulu, Hawaii** (CEQ Number: 020107, ERP Number: FTA-K40241-HI). Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. This letter details EPA's concerns.

The Federal Transit Administration and the City and County of Honolulu's Department of Transportation Services propose the construction of a 30.3-mile Bus Rapid Transit (BRT) system, which is comprised of the Regional BRT and In-Town BRT. The Regional BRT corridor is 17.5-miles long and includes extending an existing zipper lane, constructing a contraflow zipper lane, constructing four access-controlled ramps, adding an express lane, and constructing a transit center, a park-and-ride lot, and two transit stops. The In-Town BRT system will operate on existing roads and will use an embedded plate system or hybrid electric propulsion. The SDEIS analyzes refinements to the BRT system. These refinements include:

1. Replacing the Kaonohi Street and Radford Drive ramps with a Luapele Drive ramp;
2. Adding a new In-Town BRT branch; and
3. Rerouting a short section of the University of Hawaii-Manoa In-Town BRT alignment.

In addition to the BRT Alternative, the SDEIS also analyzes a No Build Alternative and a Transportation System Management Alternative. The BRT Alternative is the Preferred Alternative.

EPA reviewed the Draft Environmental Impact Statement (DEIS) in November, 2000 and rated the DEIS *LO – Lack of Objections*. EPA is currently coordinating with your office on potential impacts of the proposed project to the Southern Oahu Basal Aquifer. In a letter dated March 27, 2002, EPA posed a number of question related to impacts to the aquifer. We anticipate that your office will respond to these questions prior to the publication of the Final Environmental Impact Statement. My office has reviewed the current SDEIS, and we have rated the document *LO – Lack of Objections*. In our review we identified opportunities for improving the construction mitigation measures for air quality listed below.

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Construction – Air Quality

The SDEIS lists a number of excellent construction mitigation measures for air quality. However, given the negative heath effects of particulate matter less than 10 microns (PM10), "fugitive dust," and the magnitude of this project, we recommend the following additional mitigation measures:

- Identify sensitive receptor locations in the project area, such as schools, hospitals, parks, and athletic centers. Schedule construction to avoid and minimize impact to sensitive receptor populations, including children, the elderly, infirm, and athletes.
- Reduce the use of diesel-powered equipment. Include mitigation measures that detail how diesel emissions will be minimized for each phase of project construction, especially in sensitive receptor locations. For example, require contractors to keep the equipment fine-tuned, avoid idling, and use alternative fueled vehicles when feasible.
- Identify additional mitigation measures that will be implemented during high winds.

EPA strongly supports projects that improve regional air quality by reducing auto emissions, and we look forward to the successful implementation of this project. EPA appreciates the opportunity to comment on the SDEIS. Please send two copies of the Final Environmental Impact Statement to the address above (Mail Code: CMD-2) when it is filed with EPA's Washington, D.C. office. If you have any questions, please feel free to contact me or Nova Blazej, the point of contact for this project. Nova Blazej can be reached at 415-972-3846 or *blazej.nova@epa.gov*.

Sincerely,

Lisa B. Hanf, Manager
Federal Activities Office

cc: Donna Turchie, Federal Transit Administration
Genevieve Salmonson, Office of Environmental Quality Control
Faith Miyamoto, Dept. of Transportation Services
Hillary Hecht, Environmental Protection Agency

AR00015360

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD11/00-05372R
TPD5/02-01938R
TPD5/02-01985R

Mr. David J. Farrel, Chief
Federal Activities Office
United States Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, California 94105-3901

Dear Mr. Farrel:

Subject: Primary Corridor Transportation Project

This responds to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and the Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your November 2, 2000 letter regarding the MIS/DEIS: Part B responds to your May 6, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *EPA is highly supportive of the Purpose and Need statements, "1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile" and "2. Support desired development patterns," which include integrated land use and transportation planning designed to reinforce community livability.*

   Response: Thank you for your support.

2. *One of the goals of this project is to shift from auto-oriented, dispersed, single-use development to a land use pattern with a mix of activities that promotes walking and that focuses on a central transit system. EPA applauds the City and County of Honolulu and its State and federal partners for its forward-thinking approach to transportation management in metropolitan Honolulu.*

   Response: Thank you for supporting the project.

3. *The DEIS also states that coordination with EPA to complete the water quality assessment is on-going (pp.5-59, 60). However, this statement is premature. Coordination with EPA on the SOBA water quality assessment has not been initiated. The EIS should clearly state the nature and timing of coordination with EPA on SOBA water quality assessment.*

   Response: We concur with this comment. The FEIS has been revised to delete this statement. Coordination with the EPA on the SOBA ground water impact assessment is currently on-going, and the Section 1424(e) report has been revised to reflect project refinements.

4. *EPA strongly recommends that the City and County of Honolulu commit to using the least polluting fuel sources/technology available for the TSM alternative, as the City has done for the BRT alternative.*

   Response: The transit technologies provided in the TSM Alternative are minibuses and 40-foot standard and articulated buses. While minibuses could use alternative fuel sources, including electric batteries or propane, standard and articulated buses, particularly the ones used on long-haul routes would need to be diesel or hybrid diesel/electric because of the mountainous terrain and limited range of battery-powered vehicles.

   However, it is anticipated that the current vehicle fleet will be replaced incrementally over the next 12 years and at some point during that cycle there may be new technologies that could be integrated into the fleet.

5. *The DEIS does not speak, specifically, to the impact of the removal of currently used lanes of traffic for exclusive use by the In-Town BRT system. As exclusive lanes are dedicated for the In-Town BRT system, drivers may choose to use the local street network and avoid arterial streets. This could lead to congestion on local streets and air quality "hot spots." Specifically address the traffic impacts on the local street network that result from the removal of traffic lanes for exclusive bus use in the In-Town project area. Describe any needed mitigation measures.*

   Response: A characteristic of side streets parallel to major streets throughout Honolulu is the lack of continuity. Therefore, using side streets for through travel is not likely to result in any real time savings. If unique conditions result in isolated neighborhood "cut through" traffic, the City will work with the affected neighborhoods to implement mitigation measures acceptable to the neighborhoods. The changes in existing and future lane usage on streets affected by the Refined LPA (BRT Alternative) are shown in FEIS Table 2.2-8. The analysis of air quality impacts, including potential "hot spots" is described in Sections 3.5 and 5.5 of the FEIS. According to the air quality analysis, there would not be any significant adverse impacts on air quality as a result of the Refined LPA, and there would not be a need for any mitigation measures.

Part B – SDEIS Comments

6. *EPA is currently coordinating with your office on potential impacts of the proposed project to the Southern Oahu Basal Aquifer. In a letter dated March 27, 2002, EPA posed a number of question related to impacts to the aquifer. We anticipate that your office will respond to these questions prior to the publication of the Final Environmental Impact Statement.*

   Response: A separate response to EPA's March 27,2002 letter was prepared that included a revised Ground Water Impact Assessment.

7. *The SDEIS lists a number of excellent construction mitigation measures for air quality. However, given the negative health effects of particulate matter less than 10 microns (PM10), "fugitive dust," and the magnitude of this project, we recommend the following additional mitigation measures:*

   - *Identify sensitive receptor locations in the project area, such as schools, hospitals, parks, and athletic centers. Schedule construction to avoid and minimize impact to sensitive receptor populations, including children, the elderly, infirm, and athletes.*

AR00015361

- *Reduce the use of diesel-powered equipment. Include mitigation measures that detail how diesel emissions will be minimized for each phase of project construction, especially in sensitive receptor locations. For example, require contractors to keep the equipment fine-tuned, avoid idling, and use alternative fueled vehicles when feasible.*
- *Identify additional mitigation measures that will be implemented during high winds.*

Response: We appreciate the recommended additional PM10 mitigation measures and will, where feasible incorporate them into the project.

We will send you a copy of the FEIS under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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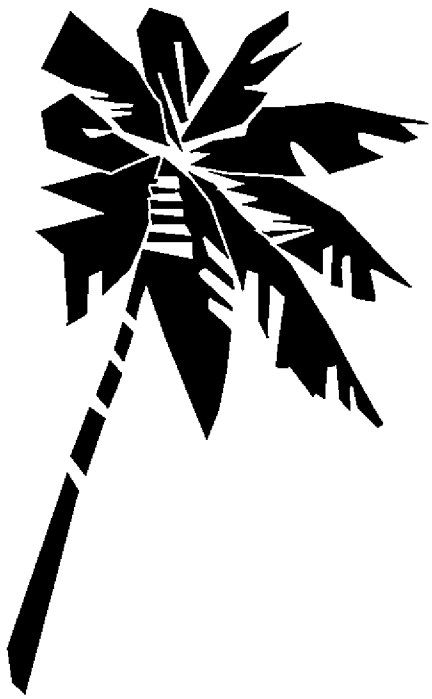
Chapter 7.0

Comments and Responses
State Agencies



GLENN M. OKIMOTO
COMPTROLLER

MARY ALICE EVANS
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810

LETTER NO. PWD02.P0185

APR 12 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for the responses you provided us on March 8, 2002. We continue to have concerns about the negative impacts on a portion of the subject project, and since the DTS Response in general does not address our original comments we offer the following:

DAGS Comment	DTS Response	DAGS Reply
We are currently working with the Housing and Community Development Corporation of Hawaii (HCDCH) to plan the development of our portion of the area located at and around the old OR&L Building near the intersection of King Street and Iwilei Road. Our intent is to construct a Liliha Civic Center to provide office space for state agencies to service the public. As such, we believe: The proposed plan extending Kaaahi Street (at grade) toward Diamond Head to Iwilei Road would result in maximum disruption to the planned civic	The DTS is committed to coordinating with DAGS to ensure that the two projects proceed in a timely manner.	We commend your commitment to coordinate with us. However, if you propose to extend Kaaahi Street thru our site and/or construct a BRT station and/or parking structure on the OR & L /Liliha Civic Center site, the City and County of Honolulu should provide us with an equivalent site (as noted below in our third original comment) or otherwise give fair compensation for our loss. Please note that the City has yet to commit to an exchange proposal for this and other earlier State land transfers, and further contact by the City with

DAGS Comment	DTS Response	DAGS Reply
center site. It nearly bisects the property with a roadway that we do not intend to utilize. We question if a Bus Rapid Transit (BRT) easement is required to traverse the site at all (as opposed to remaining on Dillingham Blvd. to and from King St., for example, since the plans for the BRT already take away 2 of the 5 lanes on Dillingham one block away). In lieu of an easement for the roadway, we propose an exchange of road Right-of-Way for county-owned school land.		the Department of Land and Natural Resources is needed to remedy these issues.
The proposed BRT station and any BRT parking structure on site would also adversely affect the development of the civic center, by increasing traffic around our site and taking up valuable property.	Chapter 4 of the DEIS presents the traffic impacts associated with the BRT project.	Kapalama and Nuuanu screenlines, BRT link volumes, as well as passenger mode of arrival to the Iwilei station data are presented. But still lacking is the negative vehicular impact of the BRT park and ride station at Iwilei and also the BRT negative impact upon nearby streets/intersections.
That if the city still plans to go ahead with items 1 & 2 above, then the City should consider purchasing the adjacent Ohtani property to execute a land swap plus purchase of all improvements with the State. This would provide us with adequate property free of the disruption from increased vehicular traffic.	The DTS is committed to coordinating with DAGS to ensure that the two projects proceed in a timely manner.	We commend your commitment to coordinate with us. However, if you propose to extend Kaaahi Street thru our site and/or construct a BRT station and/or parking structure on the OR & L /Liliha Civic Center site, the City and County of Honolulu should provide us with an equivalent site (as noted at left in our

DAGS Comment	DTS Response	DAGS Reply
		third original comment) or otherwise give fair compensation for our loss. Please note that the City has yet to commit to an exchange proposal for this and other earlier State land transfers, and further contact by the City with the Department of Land and Natural Resources is needed to remedy these issues.
Further, we request additional information about the proposed extension. What is the anticipated volume and type of traffic?	The FEIS will refine the traffic conditions associated with implementing the BRT in this location.	We look forward to the final report to provide the requested information.
Will private vehicles be permitted to use Kaaahi Street to cross through the site to Iwilei Road?	At this point in project development, private vehicles will not be permitted to use Kaaahi Street to access Iwilei Road.	We maintain that through-traffic of private vehicles at any time would be detrimental to our civic center.
Nearly ten years ago, the previous professionally-planned rapid transit project (unfortunately now defunct), was conceived to be above grade in this area, with a station located Ewa off-site, makai of Kaaahi Street to serve this neighborhood. The transit easement alignment would have been much closer to the makai boundary than, for example, an extension of Kaaahi Street provides, and would therefore have impact on our portion of the site.	The FEIS will refine the benefits and impacts associated with implementing the BRT as discussed in the DEIS.	Despite initial construction cost and disruption considerations, we continue to advocate that grade separation for transit through congested areas (such as near this site) would provide the best service to the public. In other words, developing a new at-grade transit system in areas that are already congested is flawed and another opportunity lost.

Should there be any questions, please have your staff call Mr. Bruce Bennett of the Public Works Division at 586-0491.

Very truly yours,

GLENN M. OKIMOTO
State Comptroller

c: The Honorable Bruce Anderson, DOH
The Honorable Gilbert Coloma-Agaran, DLNR
The Honorable Seiji Naya, DBEDT
Ms. Genevieve Salmonson, OEQC
Ms. Charlene Unoki, DLNR
Mr. Ron Hedani, HCDCH

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01439R

November 13, 2002

Mr. Glenn M. Okimoto
State Comptroller
State of Hawaii
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Okimoto:

Subject: Primary Corridor Transportation Project

This is in response to your April 12, 2002 letter regarding the comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *We commend your commitment to coordinate with us. However, if you propose to extend Kaaahi Street thru our site and/or construct a BRT station and/or parking structure on the OR&L / Liliha Civic Center site, the City and County of Honolulu should provide us with an equivalent site (as noted below in our third original comment) or otherwise give fair compensation for our loss.*

   Please note that the City has yet to commit to an exchange proposal for this and other earlier State land transfers, and further contact by the City with the Department of Land and Natural Resources is needed to remedy these issues.

   Response: DTS intends to continue to coordinate with DAGS and DLNR to reach a mutually acceptable disposition of property agreement at the subject site.

2. *Kapalama and Nuuanu screenlines, BRT link volumes, as well as passenger mode of arrival to the Iwilei station data are presented. But still lacking is the negative vehicular impact of the BRT park and ride station at Iwilei and also the BRT negative impact upon nearby streets/intersections.*

   Response: There is proposed to be a park-and-ride facility at Iwilei with or without the BRT. There is an EIS being prepared for the Iwilei park-and-ride, and it addresses the traffic impacts of the park-and-ride. Of course, the BRT will serve park-and-ride users as will local and limited stop buses. The BRT enters Hotel Street Transit Mall in the same manner that buses do today. Once on Hotel Street Transit Mall, the BRT would not mix with automobiles and would have minimal impact upon intersection operations.

3. *We commend your commitment to coordinate with us. However, if you propose to extend Kaaahi Street thru our site and/or construct a BRT station and/or parking structure on the OR&L / Liliha Civic Center site, the City and County of Honolulu should provide us with an equivalent site (as noted at left in our third original comment) or otherwise give fair compensation for our loss.*

Please note that the City has yet to commit to an exchange proposal for this and other earlier State land transfers, and further contact by the City with the Department of Land and Natural Resources is needed to remedy these issues.

Response: See response to comment #1.

4. *Further, we request additional information about the proposed extension. What is the anticipated volume and type of traffic?*

   Response: The extension of Kaaahi Street to Iwilei Road would be for BRT vehicles only.

5. *We maintain that through-traffic of private vehicles at any time would be detrimental to our civic center.*

   Response: See response to comment #4.

6. *Despite initial construction cost and disruption considerations, we continue to advocate that grade separation for transit through congested areas (such as near this site) would provide the best service to the public. In other words, developing a new at-grade transit system in areas that are already congested is flawed and another opportunity lost.*

   Response: The concept of a grade-separated transit system was rejected by the public and the City Council at the beginning of the Primary Corridor Transportation Project due to its high cost and visual impacts.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
ACTING EXECUTIVE DIRECTOR

ROBERT J. HALL
ACTING EXECUTIVE ASSISTANT

STATE OF HAWAII

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

IN REPLY REFER TO:
00:PEO/2864

November 13, 2000

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Re: Primary Corridor Transportation Project

Thank you for the opportunity to review the draft Environmental Impact Statement for the subject project.

We note that the old OR&L site in Iwilei is under consideration for a transit center. While not specifically identified in the draft EIS, we also understand that State land on Hikimoe Street in Waipahu has been identified as a possible transit center. The HCDCH is planning to develop an elderly rental project at the old OR&L site in Iwilei. Additionally, HCDCH has two existing elderly rental projects and plans for further elderly-related development at our Kau'olu property in Waipahu. The proposed transit centers will directly impact the HCDCH's rental housing projects and plans. Therefore, please keep us apprised of the status of the transportation project and, where feasible, let's try to coordinate our planning efforts.

Sincerely,

Sharyn Miyashiro

Sharyn L. Miyashiro
Acting Executive Director

c: The Honorable Benjamin J. Cayetano, Governor, State of Hawaii
Robert Bramen, Parsons Brinckerhoff Quade and Douglas, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05560R

November 13, 2002

Ms. Sharyn L. Miyashiro
Acting Executive Director
State of Hawaii
Department of Business, Economic Development and Tourism
Housing and Community Development Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Ms. Miyashiro:

Subject: Primary Corridor Transportation Project

This is in response to your November 13, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We note that the old OR&L site in Iwilei is under consideration for a transit center. The HCDCH is planning to develop an elderly rental project at the old OR&L site in Iwilei.*

   Response: Thank you for the comment. We are aware of the rental project being planned for this site, and have conducted preliminary coordination meetings with HCDCH to allow joint use of the OR&L site. We will continue coordinating with the HCDCH.

2. *While not specifically identified in the draft EIS, we also understand that State land on Hikimoe Street in Waipahu has been identified as a possible transit center. Additionally, HCDCH has two existing elderly rental projects and plans for further elderly-related development at our Kau'olu property in Waipahu. The proposed transit centers will directly impact the HCDCH's rental housing projects and plans. Therefore, please keep us apprised of the status of the transportation project and, where feasible, let's try to coordinate our planning efforts.*

   Response: Thank you for the information; however, this transit center is not part of this project and it has already been constructed.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

ESTHER UEDA
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
P.O. Box 2359
Honolulu, HI 96804-2359
Telephone: 808-587-3822
Fax: 808-587-3827

August 29, 2000

Ms. Cheryl D. Soon
Director
Department of Transportation
Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Major Investment Study/Draft Environmental Impact Statement for the Primary Corridor Transportation Project

We have reviewed the subject document and have the following comments:

1) As we noted in our comments on the EISPN, the project areas are designated within the State Land Use Urban and Agricultural Districts. We note that Section 3.1 incorrectly refers to the Agriculture" District as the "Agriculture" District. The Final EIS should reflect the correct name of the district.

2) The Final EIS should include a map showing the project areas under the different alternatives in relation to the State land use districts.

We have no further comments to offer at this time. We appreciate the opportunity to comment on the subject document.

Should you have any questions, please feel free to call me or Bert Saruwatari of our office at 587-3822.

Sincerely,

ESTHER UEDA
Executive Officer

EU:aa

c: OEQC
Parsons Brinckerhoff Quade and Douglas, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD9/00-04269R

November 13, 2002

Ms. Esther Ueda
Executive Director
State of Hawaii
Department of Business, Economic Development and Tourism
Land Use Commission
P.O. Box 2359
Honolulu, Hawaii 96804-3827

Dear Ms. Ueda:

Subject: Primary Corridor Transportation Project

This is in response to your August 29, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *As we noted in our comments on the EISPN, the project areas are designated within the State Land Use Urban and Agricultural Districts. We note that Section 3.1 incorrectly refers to the Agricultural District as the "Agriculture" District. The Final EIS should reflect the correct name of the district.*

   Response: In the FEIS Section 3.1 has been changed from "Agriculture" district to "Agricultural" district.

2. *The Final EIS should include a map showing the project areas under the different alternatives in relation to the State land use districts.*

   Response: The requested figure is now provided in Section 3.1.5 of the FEIS.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

BENJAMIN J. CAYETANO
GOVERNOR
SELJI F. HAYA, Ph.D.
DIRECTOR
SHARON NARIMATSU
DEPUTY DIRECTOR
DAVID W. BLANE
DIRECTOR, OFFICE OF PLANNING

RESEARCH AND ECONOMIC ANALYSIS DIVISION
No. 1 Capitol District Building, 250 South Hotel Street, 4th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt

Telephone: (808) 586-2486
Fax: (808) 586-8449

October 9, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Thank you for the opportunity to review the Major Investment Study/Draft Environmental Impact Statement for the Primary Corridor Transportation Project dated August 2000.

We have two comments:

1. Table 1.2-2, page 1-11, indicates a projection of 586,100 for Oahu employment in 2025. This is based on a DBEDT projection of January 1999 that was subsequently updated in February 2000. However, there appear to be two adjustments to DBEDT's projections that are not explained in the report: (1) The employment projection includes an estimate of military personnel that DBEDT did not make, and (2) There appears to be an adjustment for differing estimates of self-employed in the two DBEDT projections.

2. In order to avoid confusion by readers familiar with DBEDT's projections, it would be desirable to note these adjustments. This comment also applies to the Sensitivity Analysis in Section 4.2.5, page 4-19.

3. Section 5.1.5 contains a discussion of economic impacts using multipliers from DBEDT's Input-Output Model. Table 5.1-6 reports "Final Demand Multipliers" on earnings and employment of 0.48 and 11.1, respectively, for the "road construction" industry. The actual Type II final demand multipliers for income and total employment are 0.95 and 27.29, respectively (DBEDT, *The Hawaii Input-Output Study, 1992 Benchmark Report*, Dec. 1998, page 38).

4. This will affect the subsequent calculations in Tables 5.1-7 and Tables 5.1-8.

Thank you for this opportunity to comment. If you have questions or concerns, please call me at 586-2470.

Sincerely,

Dr. Pearl Imada Iboshi
Economic Research Administrator

PII:CG:tf

AR00015369

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD10/00-04958R

November 13, 2002

Ms. Pearl Imada Iboshi
Economic Research Administrator
State of Hawaii
Department of Business, Economic Development and Tourism
Research and Economic Analysis Division
P.O. Box 2359
Honolulu, Hawaii 96804

Dear Dr. Iboshi:

Subject: Primary Corridor Transportation Project

This is in response to your October 9, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Table 1.2-2, page 1-11, indicates a projection of 586,100 for Oahu employment in 2025. This is based on a DBEDT projection of January 1999 that was subsequently updated in February 2000. However, there appear to be two adjustments to DBEDT's projections that are not explained in the report: (1) The employment includes an estimate of military personnel that DBEDT did not make, and (2) There appears to be an adjustment for differing estimates of self-employed in the two DBEDT projections. In order to avoid confusion by readers familiar with DBEDT's projections, it would be desirable to note these adjustments. This comment also applies to the Sensitivity Analysis in Section 4.2.5, page 4-19.*

   Response: Clarifications have been made to these sections in the FEIS to reflect that the City and County of Honolulu Department of Planning and Permitting adjusts the DBEDT forecasts to reflect military employment and self-employment.

2. *Section 5.1.5 contains a discussion of economic impacts using multipliers from DBEDT's Input-Output Model. Table 5.1-6 reports "Final Demand Multipliers" on earnings and employment of 0.48 and 11.1, respectively, for the "road construction" industry. The actual Type II final demand multipliers for income and total employment are 0.95 and 27.29, respectively. This will affect the subsequent calculations in Tables 5.1-7 and Tables 5.1-8.*

   Response: The forecasts in Section 5.1.5 have been revised to reflect the Hawaii Input-Output Study, 1997 Benchmark Report multipliers.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

PAUL G. LeMAHIEU, Ph.D.
SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI'I 96804

OFFICE OF THE SUPERINTENDENT

September 19, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project
Major Investment Study/Draft EIS

The Department of Education has no comment on the subject document.

Thank you for the opportunity to respond.

Very truly yours,

Paul G. LeMahieu, Ph.D.
Superintendent of Education

PLeM:hy

cc: P. Yoshioka, DAS

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

BENJAMIN J. CAYETANO
GOVERNOR

PATRICIA HAMAMOTO
SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

April 3, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawai'i 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement (SDEIS)
TMK: 2-1-015, 058-060: 2-2-004, 007, 009-011: 2-4-002 & 003:
9-9-002 & 003, 045-048, 064, 075 & 076

The Department of Education has no comment on the SDEIS.

Thank you for the opportunity to respond.

Very truly yours,

Patricia Hamamoto
Superintendent

PH:hy

cc: A. Suga, OBS
G. Salmonson, OEQC

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD9/00-04581R
TPD4/02-01276R

November 13, 2002

Ms. Patricia Hamamoto, Superintendent of Education
Department of Education
State of Hawaii
P. O. Box 2360
Honolulu, Hawaii 96804

Dear Ms. Hamamoto:

Subject: Primary Corridor Transportation Project

This is in response to your September 19, 2000 and April 3, 2002 letters which advised us that you had no comments regarding the project. We appreciate you taking the time to review the MIS/DEIS and the SDEIS.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

AR00015371

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to:
File:

November 3, 2000

99-082A/epo

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Blvd., Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Major Investment Study/Draft Environmental Impact Study
Primary Corridor Transportation Project
Oahu

Thank you for allowing us to review and comment on the subject project. We do not have any comments to offer at this time.

Sincerely,

GARY GILL
Deputy Director
Environmental Health Administration

C: OEQC
Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to:
File:
02-064/epo

April 18, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Draft Environmental Impact Statement (DEIS)
Primary Corridor Transportation Project
Tax Map Key: 2-1-015, 058-060; 2-3-004, 007, 009-011; 2-4-002 & 003;
9-9-002 & 003, 045-048, 064, 075 & 076;

Thank you for the opportunity to review and comment on the subject proposal. The DEIS was routed to the various branches of the Environmental Health Administration. We have the following comments.

Wastewater Branch (WWB)

We have reviewed the subject document proposing to identify impacts resulting from Bus Rapid Transit (BRT) Alternative refinements. The BRT refinements include:

1. Replacing the Kaonohi Street and Radford Drive ramps with a Luapele Drive ramp;

2. Adding a new In-Town BRT branch (Kakaako Makai Branch) running from the Iwilei Transit Center though downtown Honolulu, the Aloha Tower Marketplace, and Kakaako Makai en route to Waikiki; and

3. Rerouting a short section of the University of Hawaii-Manoa (UH-Manoa) In- Town BRT alignment from Ward Avenue to Pensacola Street.

We have the following comments to offer. Domestic wastewater generation and disposal does not seem to be a relevant factor in this draft environmental impact statement. Therefore, we have no objections to the proposed alternate refinements.

Any wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We reserve the right to review the detailed wastewater plans for conformance to applicable rules.

Should you have any questions, please contact the Planning/Design Section of the Wastewater Branch at (808) 586-4294.

Clean Air Branch (CAB)

Control of Fugitive Dust:

Due to the nature of the project, there is a significant potential for fugitive dust to be generated during the removal of debris and during the grading, trenching, and construction activities that would impact nearby businesses, thoroughfares and residents. It is highly recommended that a dust control management plan be developed which identifies and addresses those activities that have a potential to generate fugitive dust. Implementation of adequate dust control measures during all phases of the project is warranted.

Construction activities must comply with provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. The contractor must provide adequate means to control dust from all construction activities including but not limited to:

a. Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing material transfer points and on-site vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;

b. Providing an adequate water source at the site prior to start-up of construction activities;

b. Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;

d. Controlling of dust from shoulders, project entrances, and access roads;

e. Providing adequate dust control measures during weekends, after hours, and prior to start-up of construction activities; and

f. Controlling of dust from debris being hauled away from the project site.

Proper Disposal of Construction Waste:

Waste generated by grubbing of the sites and all wastes generated during construction must be disposed of properly. The burning of waste is not permitted.

If you have any questions, please contact the Clean Air Branch at (808) 586-4200.

Hazard Evaluation and Emergency Response (HEER) Office

All remedial actions to clean up hazardous substance must comply with Hawaii Revised Statute, Chapter 128D, Environmental Response Law.

~~If you have any questions, please contact the HEER Office at (808) 586-4249.~~

Solid and Hazardous Waste Branch (SHWB)

The installation of any new Underground Storage Tanks (UST) must comply with existing State, Federal, and City & County Fire Department regulations. The Department of Health has adopted new UST rules requiring a permit for all regulated UST installed after January 28, 2000. For the removal of UST, the Solid and Hazardous Waste Branch (SHWB) must be notified 30 days prior to any activity. The removal of UST must follow the Department of Health guidelines for site assessment following removal activities.

If you have any questions, please contact the Solid and Hazardous Waste Branch at (808) 586-4226.

Sincerely,

GARY GILL
Deputy Director
Environmental Health Administration

c: WWB
CAB
HEER
SHWB

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD11/00-05413R
TPD4/02-01518R

Mr. Gary Gill, Deputy Director
Environmental Health Administration
Department of Health
State of Hawaii
P. O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Gill:

Subject: Primary Corridor Transportation Project

This is in response to your November 3, 2000 letter, which advised that you had no comments regarding the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). We appreciate you taking the time to review it. The following are our comments to your April 18, 2002 letter regarding the Supplemental Draft Impact Statement (SDEIS).

1. *We have the following comments to offer. Domestic wastewater generation and disposal does not seem to be a relevant factor in this draft environmental impact statement. Therefore, we have no objections to the proposed alternate refinements. Any wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We reserve the right to review the detailed wastewater plans for conformance to applicable rules.*

   Response: Thank you for reviewing the SDEIS. We will conform to Chapter 11-62 provisions.

2. *It is highly recommended that a dust control management plan be developed which identifies and addresses those activities that have a potential to generate fugitive dust. Implementation of adequate dust control measures during all phases of the project is warranted.*

   Response: We agree that dust control measures are an integral part of all construction activities, as stated in Section 5.12.5 of the SDEIS. Dust control measures, as required by SDOH regulations, will be part of the construction specifications.

3. *Construction activities must comply with provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. The contractor must provide adequate means to control dust from all construction activities including but not limited to:*

   a. *Planning the different phase of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing material transfer points and on-site vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;*
   b. *Providing an adequate water source at the site prior to start-up of construction activities;*
   c. *Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;*

   d. *Controlling of dust from shoulders, project entrances, and access roads;*
   e. *Providing adequate dust control measures during weekends, after hours, and prior to start-up of construction activities; and*
   f. *Controlling of dust from debris being hauled away from the project site.*

   Response: Construction specifications will instruct contractors to comply with the referenced regulations.

4. *Proper Disposal of Construction Waste. Waste generated by grubbing of the sites and all wastes generated during construction must be disposed of properly. The burning of waste is not permitted.*

   Response: Waste will be disposed of properly, as suggested in the comment. The Final EIS will be amended to confirm this statement provided by the State DOH.

5. *All remedial actions to clean up hazardous substance must comply with Hawaii Revised Statute, Chapter 128D, Environmental Response Law.*

   Response: Construction specifications will instruct contractors to comply with the referenced regulations.

6. *The installation of any new Underground Storage Tanks (UST) must comply with existing State, Federal, and City & County Fire Department regulations. The Department of Health has adopted new UST rules requiring a permit for all regulated UST installed after January 28, 2000. For the removal of UST, the Solid and Hazardous Waste Branch (SHWB) must be notified 30 days prior to any activity. The removal of UST must follow the Department of Health guidelines for site assessment following removal activities.*

   Response: Any new USTs required will comply with the new guidelines. If any USTs are removed, DOH procedures will be followed during the removal process.

We will send you four copies of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

TIMOTHY E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
JANET E. KAWELO
LINNEL NISHIOKA

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

November 22, 2000

Ms. Cheryl D. Soon, Director
City and County of Honolulu
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

LOG NO: 26198
DOC NO: 0009tm02
Architecture

Dear Ms. Soon:

SUBJECT: **Major Investment Study/**
Draft Environmental Impact Statement (MIS/DEIS)
Primary Corridor Transportation Project
TMK: Various, Throughout Oahu

Thank you for submitting the MIS/DEIS for the above project. Overall, your department and the consultants have been diligent about consulting with our office from the very early stages of planning. While we realize that the plans are still not definite, there are a few reminders and oversights discussed in previous meetings that were not mentioned in the DEIS.

1. The MIS/DEIS indicates that under the TSM alternative no historic properties are likely to be affected. However, the Kam drive-in site is mentioned as a possible transit center. The inclusion of Kam drive-in on the list of historic sites within the Area of Potential Effect is noted in the minutes of a meeting dated October 13, 1999. We believe having a transit center at this site is likely to have an effect on historic resources and would like that noted in the EIS.

2. It is mentioned that the monkey pod trees along Kapiolani Boulevard may be affected by the BRT alternative. As noted in the minutes of a meeting dated June 17, 1999, those trees were part of the historic development of Kapiolani Boulevard as a major thoroughfare and the trees were part of that historic landscaping. Therefore, it should be included as an historic site that may be affected.

3. Also not noted in the DEIS, but were mentioned at various meetings are the mature trees along University Avenue near the University and the lava rock curbs in Honolulu.

4. We understand that the Area of Potential Effect is only the road where there is no transit center or stop which requires a structure. Since this is only in the planning stages, please let us know if the stops or centers change as there are many more historic sites along the route that are currently not identified, such as Kapiolani Park and Sumida Watercress Farm.

5. Section 3.10.2, Description of the Resources. We believe that any ground disturbance exceeding about a meter in depth in the Chinatown and Hawaii Capitol Historic Districts has the potential to adversely affect subsurface cultural deposits, including human burials. In the University of Hawaii Historic District, it is less likely that subsurface cultural layers and deposits, such as historic building foundations, will be encountered. Nonetheless, human burials have been inadvertently discovered during routine construction work on the University of Hawai'i at Manoa. The Fort DeRussy area of Waikiki is considered to be of high potential for encountering significant historic sites; we believe that any ground disturbance exceeding a meter in depth is likely to have an "adverse effect" on significant historic sites such as human burials and pre-Contact cultural layers. Therefore, as specific plans are drafted for construction work associated with the PCTP in these Districts and in Waikiki, we request that we be provided copies for review at the earliest opportunity.

With continued consultation, we hope the entire project will have "no adverse effect" on historic properties. Thank you for the opportunity to comment. Should you have further questions, please call Tonia Moy at (808)692-8030 or regarding archaeological concerns Sara Collins at (808)692-8026.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

TM:jk

c: Dean Uchida, Land Division

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD12/00-05790R

November 13, 2002

Mr. Don Hibbard, Administrator
Department of Land and Natural Resources
Historic Preservation Division
State of Hawaii
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Honolulu, Hawaii 96707

Dear Mr. Hibbard:

Subject: Primary Corridor Transportation Project

This is in response to your November 22, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *The MIS/DEIS indicates that under the TSM alternative no historic properties are likely to be affected. However, the Kam drive-in site is mentioned as a possible transit center. The inclusion of Kam drive-in on the list of historic sites within the Area of Potential Effect is noted in the minutes of a meeting dated October 13, 1999. We believe having a transit center at this site is likely to have an effect on historic resources and would like that noted in the EIS.*

   Response: The former Kamehameha Drive-In is no longer being considered as a potential transit center site.

2. *It is mentioned that the monkey pod trees along Kapiolani Boulevard may be affected by the BRT alternative. As noted in the minutes of a meeting dated June 17, 1999, those trees were part of the historic development of Kapiolani Boulevard as a major thoroughfare and the trees were part of that historic landscaping. Therefore, it should be included as an historic site that may be effected.*

   Response: We agree that the trees are part of the historic landscape. The appropriate sections in the FEIS have been amended with this information.

3. *Also not noted in the DEIS, but were mentioned at various meetings are the mature trees along University Avenue near the University and the lava rock curbs in Honolulu.*

   Response: Eight young rainbow shower trees in the median of University Avenue between Kapiolani Boulevard and King Street will be relocated on-site. Two other trees fronting Puck's Alley and four at Sinclair Circle will also be relocated.

   Two types of sidewalk features were identified by SHPO as worthy of mention – lava rock curbs and Chinese granite sidewalks. Such masonry are historic resources identified as "Hotel Street sidewalk features" in Table 3.10-1 of the MIS/DEIS. Lava rock curbs are found in various places around Honolulu. Street widenings and BRT platform construction will involve removal of historic

sidewalk elements in various locations, including Dillingham Boulevard, Hotel Street, South King Street, and on Saratoga Road in Waikiki. The FEIS reflects the various locations of the historic sidewalk elements in Honolulu.

While most of the Chinese granite sidewalks remaining to date are in Chinatown, none were identified in the locations surveyed along the BRT alignment. However, small pieces of potentially historic granite curbs were identified on the makai side of South King Street, across from the Alapai Transit Center.

SHPD has no specific requirements, policies, or guidelines on how to preserve lava rock curbs and other sidewalk features. However, SHPD does prefer that curbs and other historic sidewalk features be preserved in place as much as possible, including restoration after construction. If retention in place is not possible, they will be removed and stored by the City and County of Honolulu.

4. *We understand that the Area of Potential Effect is only the road where there is no transit center or stop which requires a structure. Since this is only in the planning stages, please let us know if the stops or centers change as there are many more historic sites along the route that are currently not identified, such as Kapiolani Park and Sumida Watercress Farm.*

   Response: Coordination with the SHPD has continued throughout the EIS process and the APE reflects that coordination. As SHPD is aware, some of the transit stops have the potential to cause proximity impacts to certain historic properties. Therefore, further coordination with SHPD will be conducted to avoid, mitigate or lessen these impacts.

5. *We believe that any ground disturbance exceeding about a meter in depth in the Chinatown and Hawaii Capitol Districts has the potential to adversely effect subsurface cultural deposits, including human burials.*

   Response: Section 5.10.2 of the FEIS under the Refined LPA has been revised to disclose the potential for uncovering subsurface archeeological resources, such as cultural layers and deposits and human burials, during construction of the Middle Street maintenance facility and transit center, the Iwilei transit center, and at certain sections of the In-Town BRT should embedded plate technology be used. DTS is committed to continuing coordination with SHPD regarding cultural layers and human burials, should any be discovered during construction. Mitigation measures for inadvertent disturbance of burials are addressed in Sections 5.10 and 5.12 of the FEIS.

6. *In the University of Hawaii Historic District, it is less likely that subsurface cultural layers and deposits, such as historic building foundations, will be encountered. Nonetheless, human burials have been inadvertently discovered during routine construction work on the University of Hawaii at Manoa.*

   Response: See response to comment #5.

7. *The Fort DeRussy area of Waikiki is considered to be of high potential for encountering significant historic sites; we believe that any ground disturbance exceeding a meter in depth is likely to have an "adverse effect" on significant historic sites such as human burials and pre-Contact cultural layers.*

Response: See response to comment #5.

8. *Therefore, as specific plans are drafted for construction work associated with the PCTP in these Districts and in Waikiki, we request that we be provided copies for review at the earliest opportunity.*

Response: The detailed design plans will be developed during the final design phase of project development. Coordination with the SHPD will continue throughout the project design and construction phases.

The Department of Land and Natural Resources will receive five copies of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

September 22, 2000

LD-NAV

Ref.: PRICORDTRANSPRJ.RCM

Honorable Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

SUBJECT: Draft Environmental Assessment for the Primary Corridor Transportation Project, Ewa, Island of Oahu, Hawaii

Thank you for the opportunity to review and comment on the subject matter.

Attached herewith is a copy of our Land Division Engineering Branch and our Commission on Water Resource Management comments.

The Department has no other comment to offer on the subject matter at this time.

Should you have any questions, please feel free to contact Nicholas Vaccaro of the Land Division's Support Services Branch at 808-587-0438.

Very truly yours,

DEAN Y. UCHIDA
Administrator

C: Oahu District Land Office

DLNR-LAND DIVISION
ENGINEERING BRANCH

COMMENTS

LD/NAV

Ref.: PRICORTRANSPRJ.COM

Since several areas in the study area are within the 100- or 500-year base flood plains, the proposed project must comply with rules and regulations of the National Flood Insurance Program (NFIP) and all applicable County Flood Ordinances. If there are questions regarding the NFIP, please contact the State Coordinator, Sterling Yong, of the Department of Land and Natural Resources at 587-0248. If there are questions regarding flood ordinances, please contact the applicable County representative.

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BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

TIMOTHY E. JOHNS
CHAIRPERSON

BRUCE S. ANDERSON
ROBERT G. GIRALD
BRIAN C. NISHIDA
DAVID A. NOBRIGA
HERBERT M. RICHARDS, JR.

LINNEL T. NISHIOKA
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

SEP 15 2000

TO: Dean Y. Uchida, Administrator
Land Division

FROM: Linnel T. Nishioka, Deputy Director
Commission on Water Resource Management

SUBJECT: Draft Environmental Assessment, Primary Corridor Transportation Project
City and County of Honolulu, Department of Transportation Services, Oahu

This is in response to your memorandum dated, August 31, 2000, requesting comments on the Draft Environmental Assessment (DEA) for the Primary Corridor Transportation Project.

The DEA acknowledges that stream channel alteration permits may be required if the Bus Rapid Transit alternative is selected (Table 7.5-1). The preliminary nature of the Environmental Assessment does not provide specific information regarding stream modifications. When more specific information is provided, we will offer more detailed comments on the need for stream channel alteration permits.

Thank you for coordinating with us. Should you have any questions, please call David Higa of the Commission staff at 587-0249.

DH:sd

AR00015378

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

April 3, 2002

LD-NAV
Ref.: SDEISDTSCORRIDOR.RCM

L-1784/1789

Honorable Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

SUBJECT: Review: Supplemental Draft Environmental Impact Statement
Applicant: Department of Transportation Services C&CoH
Project: Primary Corridor Transportation Project
Location: Island of Oahu, Hawaii
TMK: 1st/ 2-1-015, 065-060; 2-3-004, 007, 009-011; 2-4-002 & 003; 9-9-002 & 003, 045-048, 064, 075 and 074 (Plats)

Thank you for the opportunity to review and comment on the subject matter.

A copy of the document covering the proposed project was transmitted to the following Department of Land and Natural Resources' Divisions for their review and comment:

- Division of Aquatic Resources
- Division of Forestry & Wildlife
- Division of State Parks (RD)
- Historic Preservation Division (RD)
- Commission on Water Resource Management (RD)
- Land Division Engineering Branch
- Land Division Planning and Technical Services
- Oahu District Land Office

Attached herewith is a copy of the Land Division Engineering Branch comment.

The Department has no other comment to offer at this time.

Should you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 587-0438.

Very truly yours,

DIERDRE S. MAMIYA
Administrator

C: Oahu District Land Office

DLNR-LAND DIVISION
ENGINEERING BRANCH

COMMENTS

LD/NAV

Ref.: PRICORTRANSPRJ.COM

Since several areas in the study area are within the 100- or 500-year base flood plains, the proposed project must comply with rules and regulations of the National Flood Insurance Program (NFIP) and all applicable County Flood Ordinances. If there are questions regarding the NFIP, please contact the State Coordinator, Sterling Yong, of the Department of Land and Natural Resources at 587-0248. If there are questions regarding flood ordinances, please contact the applicable County representative.

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DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD9/00-04670R
TPD4/02-01376R

Ms. Diedre S. Mamiya, Administrator
Department of Land and Natural Resources
Land Division
State of Hawaii
P. O. Box 621
Honolulu, Hawaii 96809

Dear Ms. Mamiya:

Subject: Primary Corridor Transportation Project

This is in response to your September 15 and September 22, 2000, and April 3, 2002 letters regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). Your letters also referred us to a copy of the Land Division Engineering Branch and Commission on Water Resource Management memo.

1. *The preliminary nature of the Environmental Assessment does not provide specific information regarding stream modifications. When more specific information is provided, we will offer more detailed comments on the need for stream channel alteration permits.*

   Response: The Kapalama Stream bridge on Dillingham Boulevard will not be widened; however, the project will require that an additional beam be installed to reinforce the structure. This work will be accomplished without modifying or altering the stream.

2. *Since several areas in the study area are within the 100- or 500- year base flood plains, the proposed project must comply with rules and regulations of the National Flood Insurance Program (NFIP) and all applicable Flood Ordinances"*

   Response: The Final Environmental Impact Statement (FEIS) will affirm this commitment to the rules and regulations of NFIP and applicable County Flood Ordinances in Section 5.8.3.

The Department of Land and Natural Resources will receive five copies of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

November 3, 2000

LEADING HAWAII INTO THE NEW MILLENNIUM
1959 2000+

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

IN REPLY REFER TO:
DIR 1.110300

Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project, Draft EIS

Thank you for the opportunity to review the Draft EIS for the Primary Corridor Transportation Project (PCTP). The project has many worthwhile features and we are in general support of it. However, we do have some concerns with the scope of the improvements, cost estimates, and implementation strategy, which need to be addressed and refined.

Our comments are as follows:

1. **Full disclosure of the impacts to the non-transit users must be presented.** The non-transit users should be apprised of the traffic congestion and delays they can expect with the pre-emption of traffic lanes and timing signals, especially since there is no plan to mitigate the adverse impacts.

   Peak and non-peak traffic congestion information, in delay time and by roadway segments, should be included in the report; and because the implementation of the total system is critical to the system's performance, and it is highly doubtful that the total system can be implemented within a ten-year timeframe, information on the impacts during the interim period as well as upon completion of the system should be provided.

Additionally,

a. The evaluation measures include a breakdown of transit travel time by segments (i.e., between Downtown and Kapolei; Downtown and Waikiki; Downtown and UH-Manoa; and Downtown and Kalihi). A similar breakdown by roadway segments of auto travel time should be provided and discussed.

b. The discussion on federal highway funding states that less than 20 percent of the total annual highway funding would be used for the project. While this may be true on a statewide basis, information should be provided which sets the project more appropriately within the context of funds available for metropolitan Honolulu, and for use on capital improvement projects.

c. The report further states that no major capital projects would be deferred if either the TSM or BRT Alternatives were selected. This is not true.

2. **The highway elements reflected in the alternatives are understated.** Generally, only those projects programmed for implementation within the next three years were included in the analyses. Other highway projects identified in the current ORTP are underway and should also be reflected, including the Waimalu Viaduct widening, Nimitz Viaduct, the Freeway Management System, Ward Avenue Extension, and various ramp and interchange improvements. Additional projects have also been identified for the Ewa region.

3. **Scope of the highway improvements and cost estimates need to be refined.**

a. It has been the HDOT's commitment to the FHWA that we would improve the Interstate to standard. Where construction on the Interstate is required to support the transit alternative, the project should include restoring the segment to standard, including preservation/maintenance and safety measures, as may be required. This needs to be factored into the project scope and cost estimates.

b. With the limitations on our fiscal and staffing resources, it would not be reasonable to assume that the highway elements of the project can be implemented within the ten-year time frame presented in the report. The list of projects requiring State and FHWA funds, and staff resources far exceed what is available. The commitment of State and Federal Highway funds needs to be resolved; policy decisions are yet to be made committing to the level of funding and timetable required for the project. Moreover, our engineers estimate the costs to be substantially higher than the $200 million of FHWA and State funds assumed in the report.

c. Various concerns on the deployment of the afternoon zipper lane remain outstanding. These include the adverse impacts to the inbound traffic, and the entire scope of work required for the zipper project itself (due to related improvements). The project does not adequately address the substandard design and use of the shoulder lane, required structural support, modifications to existing interchanges for zipper lane access, and mitigation measures to address problems resulting from removal of the permanent median barriers (such as headlight glare).

4. **Strategies for implementation need to be reconsidered.** The planned higher density in the urban core, and pre-emption of traffic lanes and timing signals will intensify the congestion problems, creating possible gridlock. In concept, this will increase the diversion to transit. In reality, the diversion will not occur until the entire system is in place (otherwise, there would be no time savings); and the costs and time schedules appear to be overly optimistic. We cannot afford to be in gridlock for an extended "interim" period. The phasing of the project should be reconsidered to avoid taking of lanes until the final phases. Also, there would be those motorists unable to divert to a transit alternative, such as freight movers and parents with student drop-offs. Reasonable alternatives or provisions for these "captive" auto users should be developed.

   We have included in this letter our specific recommendations on what believe would be a more viable implementation strategy.

5. The Honolulu International Airport (HNL) is a major trip attractor and employment site. Its patrons will not have access to the BRT since the nearest transit centers are at Pearl City and Iwilei. Accommodations to provide a link to the HNL should be investigated.

Recommendations:

The DEIS eliminates the highway only alternative and essentially pursues transit only alternatives. A more prudent approach may be to look at a combination of both. An enhanced transit system is definitely needed to address our congestion problems; but highway improvements are also required. A systematic, integrated implementation of both transit and highway improvements should be pursued.

A. HDOT is aggressively pursuing the Waimalu Viaduct widening project, which is scheduled for completion in 2004. This will provide some relief for outbound afternoon traffic. Discretionary funds have been earmarked for the project. Aside from adding an additional lane between the Kaonohi Overpass and Pearl City Off-ramp, this project will restore the Interstate to standards, and include preservation/maintenance, structural reinforcement and other safety measures, as may be required.

DIR 1.110300

The proposed PM zipper and other outbound transit improvements should be deferred until the effectiveness of the Waimalu project can be assessed. (The PM peak is also not the critical peak and resources should be first directed to the inbound morning congestion.)

B. For the inbound morning traffic, we need to further examine the travel time to the proposed transit centers. It would appear that the bottlenecks and congestion are concentrated at the outskirts of Downtown, with the back up beginning at Middle Street If we can provide improved accesses to the transit centers, and incentives for the motorists to change modes at these centers, the number of vehicles entering Downtown could be reduced (e.g., reduced parking rates at the centers; employer sponsored bus passes, etc.). This can be done with or without the In-town BRT.

This strategy would mean continuing the bus service for the transit riders from the origin sites; and building up the transit centers and providing service from there for motorists who change modes enroute to their destinations. This should be done before implementing the In-town BRT because it may provide some congestion relief before pre-empting any lanes and causing a prolonged gridlock situation.

In the meantime, HDOT does intend to pursue the Nimitz Viaduct project, which would further relieve congestion during the implementation of the In-town BRT.

This type of strategy, an incremental implementation of the transit alternative, would not only allow us to spread out our financial and staffing resources, but more importantly, to re-evaluate the different phases of the total project and reassess the assumptions made.

We would be pleased to further discuss our comments and look forward to working with you on this project.

Sincerely,

KAZU HAYASHIDA
Director of Transportation

c: FTA, FHWA, OMPO
Hon. Benjamin J. Cayetano
Hon. Daniel Inouye
Hon. Neil Abercrombie
Hon. Cal Kawamoto
Hon. Kenneth Hiraki

BENJAMIN J. CAYETANO
GOVERNOR

MAY – 7 2002

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

MAY 7 2002

IN REPLY REFER TO:
HWY-PS
2.6532

DTS
TRANS PLANNING
MAY 7 4 29 PM '02

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project Supplemental Draft Environmental Impact Statement (DEIS)

The following comments address the March 2002 Supplement DEIS, your January 16, 2002 response to our comments on the Supplemental DEIS Preparation Notice (HWY-PS 2.4594), and the January 18, 2002 Primary Corridor Transportation Project Bus Rapid Transit Alternative Final Conceptual Design Drawings (Technical Appendix B) which we received on February 19, 2002. They clarify and supplement our previous letters dated November 3, 2000 (DIR 1.110300), October 24, 2001 (HWY-PS 2.4594), and April 15, 2002 (HWY-PS 2.6197)

PREVIOUS COMMENTS

The following points address major concerns we have previously raised.

1. HDOT POSITION ON THE IN-TOWN BRT

As stated in our letters dated November 3, 2000 and April 15, 2002, before the City decides to implement actions which may adversely impact existing motorists, your EIS needs to fully disclose, and the public needs to be adequately informed of, traffic impacts which immediately will occur when measures are taken to give the In-Town BRT priority over other traffic. To date, sufficient information has not been provided in the City's EIS documents. We are especially concerned about traffic impacts to the State highway system when the In-Town BRT is implemented on King Street and Dillingham, Kapiolani, and Ala Moana Boulevards. As further indicated in our letter dated April 15, 2002, details of all proposed improvements within the State highway right-of-way (ROW) must be submitted for our review and approval.

Our Harbors Division strongly objects to any loss of prime harbor property makai of Ala Moana Boulevard because of potential constraints to container yard and cruise ship operations. As indicated in our letters dated October 24, 2001 and April 15, 2002, we request that the Final EIS fully address their concerns. Although the proposed Pier 2 Cruise Ship Terminal has been postponed, please consult the U.S. Coast Guard concerning design requirements, access limitations, and parking restrictions necessary to maintain security between the proposed Terminal and Ilalo Street.

2. INFORMATION THAT SHOULD BE PROVIDED IN THE FINAL EIS

We requested the following information in our October 24, 2001 comments on the Supplemental DEIS Preparation Notice, but have not yet received a satisfactory response. We have restated or expanded some points so there will be no misunderstanding. If not provided in the Final EIS, requested information about the Regional BRT must be addressed in a future Supplemental DEIS.

a. The Final EIS needs to update previous information about where and when the City proposes to convert existing traffic lanes to contra-flow and/or BRT use. There needs to be full, clear public disclosure of where roadway capacity would be lost or reduced and how this capacity displacement will be accommodated through the City's proposed mitigation strategies. Table 2.2-4 should be expanded to include a comprehensive summary of where and when EIS proposals for contra-flow would affect existing laneage on State highways, and when and where EIS proposals would affect existing contra-flow laneage on Kapiolani Boulevard.

b. At the time existing traffic lanes are <u>initially</u> converted to exclusive use by the proposed In-Town BRT and existing traffic signals are modified to give priority to the In-Town BRT:

- Which intersections and roadways will have reduced levels of service?
- How will traffic signal coordination and progression be affected and what are the potential impacts to ITS and traffic flow on the surrounding highway system?
- What will be the cumulative impacts on the duration and severity of traffic congestion at screen lines?
- What will be the cumulative impacts in terms of vehicle travel time delay along the major arterials where BRT operations will reduce roadway capacity?
- What share of trips will be made by bus?
- How many drivers will be worse off and how much more travel delay will they experience?
- How many bus riders will be better off and how much less travel delay will they experience?

c. The Final EIS needs to evaluate the noise impacts, between the Pearl Harbor Interchange and the Waiawa Interchange, resulting from increased peak afternoon traffic volumes when the proposed westbound zipper lane is deployed on Interstate H-1.

d. The Final EIS needs to compare the benefits, costs, and drawbacks of full compliance with Interstate Standards for each proposed Design Exception. Full compliance with Interstate Standards is normally a reasonable alternative to Design Exceptions. Unless adequate justification is provided, we cannot support and FHWA may not grant even a temporary Design Exception for substandard at-grade highway shoulders.

e. The Final EIS needs to describe likely temporary construction-related impacts to the State highway system. Off-peak construction may not be sufficient to mitigate impacts. Other congestion mitigation strategies must be provided for construction-related impacts.

f. The Final EIS needs to include estimates of daily boardings and alightings at the Aloha Stadium Transit Center by bus-riders using the proposed Luapele Drive ramp at the time when the City proposes that this ramp be completed. The Final EIS should include similar estimates for the proposed Kunia and Kapolei ramps at the time when the City proposes that these ramps be completed. And Table 4.1-7 should include similar estimates for all three ramps in 2025.

3. PRIORITIES FOR FHWA FUNDS

We would like to clarify statements about HDOT priorities in our letters dated November 3, 2000 and October 24, 2001. Unlike the City, we have a statewide system and need to meet statewide demands. Our highest priority is to maintain existing State highways and keep them safe. Our next priority is to make incremental improvements to benefit existing highway users. Unfortunately, our statewide needs far exceed available State and FHWA funds.

The Oahu Metropolitan Planning Organization Policy Committee will approve the amount of Oahu FHWA and FTA funds available for the BRT or other projects. Over the past decade, the City has received an average of about $10 million/year of some kind of FHWA funds for a variety of projects including road resurfacing, road widening, new roads, traffic signals, traffic surveillance cameras, bikeways, bridges, street trees, underground utilities, and acquisition of shoreline property. In the future, the BRT will compete with other eligible, desirable projects for use of FHWA funds.

RECOMMENDATIONS

1. Previous and current HDOT comments must be addressed to our satisfaction.

2. Much more information is available to describe and evaluate the environmental impacts of the proposed Middle Street ramp and the proposed In-Town BRT than the proposed Regional BRT. Further analysis and a future Supplemental DEIS will be required for several key components of the Regional BRT.

3. The Final EIS needs a technical appendix to explain the assumptions and methodology used to quantify:

   - travel demand.
   - peak spreading / duration of traffic congestion.
   - screen line capacity and level of service.
   - reductions in screen line throughput due to downstream congestion.
   - transit mode share.
   - vehicle miles of travel.
   - vehicle hours of delay.
   - screen line "person-carrying capacity".
   - transit boardings per linked trip.
   - measures for traffic signal prioritization.

   The technical appendix also needs to document that traffic forecasting models used for the EIS reasonably reflect the duration and severity of traffic congestion, transit mode share, vehicle miles of travel, and vehicle hours of delay under existing conditions.

4. The City should coordinate the BRT project with current HDOT projects to extend the existing morning H-1 zipper lane and provide peak morning eastbound contra-flow on Nimitz Highway.

If you have any questions, please contact Ronald Tsuzuki, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours,

BRIAN K. MINAAI
Director of Transportation

Enclosures: HWY-PS 2.6197, HWY-PS 2.4594, DIR 1.110300

c: FHWA, FTA, OMPO, OEQC, Senator Daniel Inouye, Senator Dan Akaka, Representative Patsy Mink, Representative Neil Abercrombie all w/enclosure

DIR 0518
HWY-PS
2.6197

APR 1 5 2002

The Honorable John DeSoto
Chair and Members
Honolulu City Council
City and County of Honolulu
530 South King Street
Honolulu, Hawaii 96813

Dear Chairman DeSoto and Members:

Subject: Development Plan Public Facilities Map Amendment (2002/DPPFM-5) for the Primary Urban Center Bus Rapid Transit (BRT) Iwilei to Waikiki Alignment, Honolulu, Oahu

Thank you for consulting us concerning the proposed Development Plan Facilities Map Amendment.

We support expanded provision of limited-stop bus service and conversion of overlapping bus routes to a hub-and-spoke system. However, before the City decides to take away traffic lanes from existing motorists, the City needs to fully disclose, and the public needs to be adequately informed of, traffic impacts which will occur at the time traffic lanes are initially converted to exclusive use by the proposed BRT. To date, this information has not been provided in the City's EIS documents.

All plans for work within the State highway right-of-way must be coordinated and submitted to our Highways Division for our review and approval. The proposed BRT alignment uses portions of Nimitz Highway and Ala Moana Boulevard—which are both State highways.

We consulted the Hawaii Community Development Authority (HCDA) and our Harbors Division concerning proposed BRT use of their property makai of Ala Moana Boulevard. The HCDA will not consent to the City proposal to extend Ilalo Street to Channel Street because the alignment would not be consistent with their adopted plan. However, they probably would welcome City assistance to implement their plan to extend Ilalo Street to Punchbowl Street. Our Harbors Division wishes to minimize constraints on container yard and cruise ship operations. Although the proposed Pier 2 Cruise Ship Terminal has been postponed, the City needs to consult the U.S. Coast Guard concerning design requirements, access limitations, and parking restrictions necessary to maintain security between the proposed Terminal and Ilalo Street.

02-076

If you have any questions, please contact Ronald Tsuzuki, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours,

Brian Minaai

BRIAN K. MINAAI
Director of Transportation

c: City Department of Planning and Permitting
City Department of Transportation Services
Hawaii Community Development Authority

DM: mm

bc: DEP-P, -S, STP, PPB, HAR, HWY, -O, -T, -D, -C, -R, -S, -PA, -PS (02-076)

OCT 2 4 2001

DIR 1442
HWY-PS
2.4594

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project, Supplemental Draft Environmental Statement (DEIS) Preparation Notice

Thank you for the opportunity to review the Preparation Notice for the Supplemental DEIS.

We request that you respond to our previous comments (DIR 1.110300, dated 11/3/00) on the Draft EIS and (DIR 1.015, dated 3/16/01), which includes further comments regarding the Primary Corridor Transportation project. Further comments are listed below:

1. Because our statewide needs far exceed our limited resources, we cannot commit State highway funds for the Bus Rapid Transit (BRT)project.

2. The Supplemental DEIS needs to update previous information about where and when the City proposes to convert existing traffic lanes to contra-flow and/or to BRT use.

3. At the time traffic lanes are initially converted to exclusive use of the proposed In-Town BRT:
   - Which intersections and roadways will have reduced levels of service?
   - What will be the cumulative impacts on the duration and severity of traffic congestion at screenlines?
   - How many drivers will be worse off and how much more travel delay will they experience?
   - How many bus riders will be better off and how much less travel delay will they experience?

4. The Supplemental DEIS needs to address the impacts of the proposed makai Kakaako BRT route on cargo and cruise ship operations at Pier 2.

5. At the westbound approach to the Waiawa Interchange, deployment of the eastbound zipperlane reduces Interstate H-1 to a single westbound lane. The Supplemental DEIS should determine necessary improvements so that deployment of the eastbound zipperlane does not cause a bottleneck for morning westbound traffic in 2025. Proposed improvements also must not preclude construction of an additional lane to off-ramp 8-B to Waipahu.

6. Please describe the timing and nature of improvements needed on Nimitz Highway to accommodate the proposed extension of the eastbound zipperlane into Keehi Interchange.

7. Please evaluate the noise impacts resulting from increased peak afternoon traffic volumes when the proposed westbound zipperlane is deployed on Interstate H-1.

8. Within the existing Waiawa and Waiau Interchanges, where there is no shoulder lane, deployment of the proposed westbound zipperlane would narrow Interstate H-1 to three eastbound lanes. Please verify that there will be acceptable levels of service for eastbound traffic through these interchanges when the proposed westbound zipperlane is initially deployed. We also request that you evaluate when and how these Interchanges will need to be widened so that deployment of the proposed westbound zipperlane will not cause a bottleneck for increasing eastbound traffic volumes.

9. Full compliance with Interstate Standards is normally a reasonable alternative to Design Exceptions. Hence, you need to compare the benefits, costs, and drawbacks of full compliance with Interstate Standards with the benefits, costs, and drawbacks for each proposed Design Exception. Unless compelling justification is provided, we may not support and FHWA may not grant even a temporary Design Exception for substandard at-grade highway shoulders.

10. According to the Preparation Notice, new ramps and freeway widening are proposed for exclusive BRT access to Interstate Route H-1 from a proposed Kapolei Interchange, a proposed transit center near the Kunia Interchange, Luapele Drive near the Stadium, and the Radford Drive overpass. According to the Preparation Notice, a new ramp is also proposed for unrestricted vehicular access from Interstate Route H-1 to a proposed City transit center near Middle Street.

For each of these locations, we request that the Supplemental DEIS separately:

- provide updated plans showing proximity to other ramps.
- provide updated cost estimates.
- describe temporary construction-related impacts to freeway traffic and what mitigation measures are proposed.
- describe long-term environmental impacts and mitigation measures.
- describe what traffic movements would be allowed on the proposed ramp.
- explain how the BRT would be rerouted if no zipperlane were deployed and/or the proposed ramp were temporarily unusable.
- estimate daily bus riders using the proposed ramp, both when initially constructed and in 2025.
- estimate the drop in projected daily bus ridership if the proposed ramp were not constructed.
- estimate peak traffic volume on the proposed ramp and the lane into which the ramp would merge in 2025.
- assess design features and traffic controls necessary for articulated buses to safely enter and exit the proposed ramp.

Much of this information will also be needed for a formal Justification Report which must be submitted for our concurrence and FHWA approval before new access is allowed to our Interstate system.

If you have any questions, please contact Ronald Tsuzuki, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours;

BRIAN K. MINAAI
Director of Transportation

Enclosures (DIR 1.110300 and DIR 1.015)

c: Office of Environmental Quality Control (w/attach.), FHWA (w/attach.)

DM:mm

bc: DEP-J, PPB, STP, HWY, -T, -D, -PA, -PS (01-233) all w/attach.
DIR,HAR,HWY-O,-R w/attach

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Nov 6 11 19 AM '00
DEPT. OF TRANSPORTATION
HIGHWAYS DIVISION

November 3, 2000

DIR 922

DIR 1.110300

Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project, Draft EIS

Thank you for the opportunity to review the Draft EIS for the Primary Corridor Transportation Project (PCTP). The project has many worthwhile features and we are in general support of it. However, we do have some concerns with the scope of the improvements, cost estimates, and implementation strategy, which need to be addressed and refined.

Our comments are as follows:

1. **Full disclosure of the impacts to the non-transit users must be presented.** The non-transit users should be apprised of the traffic congestion and delays they can expect with the pre-emption of traffic lanes and timing signals, especially since there is no plan to mitigate the adverse impacts.

   Peak and non-peak traffic congestion information, in delay time and by roadway segments, should be included in the report; and because the implementation of the total system is critical to the system's performance, and it is highly doubtful that the total system can be implemented within a ten-year timeframe, information on the impacts during the interim period as well as upon completion of the system should be provided.

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Additionally,

a. The evaluation measures include a breakdown of transit travel time by segments (i.e., between Downtown and Kapolei; Downtown and Waikiki; Downtown and UH-Manoa; and Downtown and Kalihi). A similar breakdown by roadway segments of auto travel time should be provided and discussed.

b. The discussion on federal highway funding states that less than 20 percent of the total annual highway funding would be used for the project. While this may be true on a statewide basis, information should be provided which sets the project more appropriately within the context of funds available for metropolitan Honolulu, and for use on capital improvement projects.

c. The report further states that no major capital projects would be deferred if either the TSM or BRT Alternatives were selected. This is not true.

2. **The highway elements reflected in the alternatives are understated.** Generally, only those projects programmed for implementation within the next three years were included in the analyses. Other highway projects identified in the current ORTP are underway and should also be reflected, including the Waimalu Viaduct widening, Nimitz Viaduct, the Freeway Management System, Ward Avenue Extension, and various ramp and interchange improvements. Additional projects have also been identified for the Ewa region.

3. **Scope of the highway improvements and cost estimates need to be refined.**

a. It has been the HDOT's commitment to the FHWA that we would improve the Interstate to standard. Where construction on the Interstate is required to support the transit alternative, the project should include restoring the segment to standard, including preservation/maintenance and safety measures, as may be required. This needs to be factored into the project scope and cost estimates.

b. With the limitations on our fiscal and staffing resources, it would not be reasonable to assume that the highway elements of the project can be implemented within the ten-year time frame presented in the report. The list of projects requiring State and FHWA funds, and staff resources far exceed what is available. The commitment of State and Federal Highway funds needs to be resolved; policy decisions are yet to be made committing to the level of funding and timetable required for the project. Moreover, our engineers estimate the costs to be substantially higher than the $200 million of FHWA and State funds assumed in the report.

c. Various concerns on the deployment of the afternoon zipper lane remain outstanding. These include the adverse impacts to the inbound traffic, and the entire scope of work required for the zipper project itself (due to related improvements). The project does not adequately address the substandard design and use of the shoulder lane, required structural support, modifications to existing interchanges for zipper lane access, and mitigation measures to address problems resulting from removal of the permanent median barriers (such as headlight glare).

4. **Strategies for implementation need to be reconsidered.** The planned higher density in the urban core, and pre-emption of traffic lanes and timing signals will intensify the congestion problems, creating possible gridlock. In concept, this will increase the diversion to transit. In reality, the diversion will not occur until the entire system is in place (otherwise, there would be no time savings); and the costs and time schedules appear to be overly optimistic. We cannot afford to be in gridlock for an extended "interim" period. The phasing of the project should be reconsidered to avoid taking of lanes until the final phases. Also, there would be those motorists unable to divert to a transit alternative, such as freight movers and parents with student drop-offs. Reasonable alternatives or provisions for these "captive" auto users should be developed.

We have included in this letter our specific recommendations on what believe would be a more viable implementation strategy.

5. The Honolulu International Airport (HNL) is a major trip attractor and employment site. Its patrons will not have access to the BRT since the nearest transit centers are at Pearl City and Iwilei. Accommodations to provide a link to the HNL should be investigated.

Recommendations:

The DEIS eliminates the highway only alternative and essentially pursues transit only alternatives. A more prudent approach may be to look at a combination of both. An enhanced transit system is definitely needed to address our congestion problems; but highway improvements are also required. A systematic, integrated implementation of both transit and highway improvements should be pursued.

A. HDOT is aggressively pursuing the Waimalu Viaduct widening project, which is scheduled for completion in 2004. This will provide some relief for outbound afternoon traffic. Discretionary funds have been earmarked for the project. Aside from adding an additional lane between the Kaonohi Overpass and Pearl City Off-ramp, this project will restore the Interstate to standards, and include preservation/maintenance, structural reinforcement and other safety measures, as may be required.

DIR 1.110300

The proposed PM zipper and other outbound transit improvements should be deferred until the effectiveness of the Waimalu project can be assessed. (The PM peak is also not the critical peak and resources should be first directed to the inbound morning congestion.)

B. For the inbound morning traffic, we need to further examine the travel time to the proposed transit centers. It would appear that the bottlenecks and congestion are concentrated at the outskirts of Downtown, with the back up beginning at Middle Street If we can provide improved accesses to the transit centers, and incentives for the motorists to change modes at these centers, the number of vehicles entering Downtown could be reduced (e.g., reduced parking rates at the centers; employer sponsored bus passes, etc.). This can be done with or without the In-town BRT.

This strategy would mean continuing the bus service for the transit riders from the origin sites; and building up the transit centers and providing service from there for motorists who change modes enroute to their destinations. This should be done before implementing the In-town BRT because it may provide some congestion relief before pre-empting any lanes and causing a prolonged gridlock situation.

In the meantime, HDOT does intend to pursue the Nimitz Viaduct project, which would further relieve congestion during the implementation of the In-town BRT.

This type of strategy, an incremental implementation of the transit alternative, would not only allow us to spread out our financial and staffing resources, but more importantly, to re-evaluate the different phases of the total project and reassess the assumptions made.

We would be pleased to further discuss our comments and look forward to working with you on this project.

Sincerely,

KAZU HAYASHIDA
Director of Transportation

JT:sy
c: FTA, FHWA, OMPO
Hon. Benjamin J. Cayetano
Hon. Daniel Inouye
Hon. Neil Abercrombie
Hon. Cal Kawamoto
Hon. Kenneth Hiraki
bc: DEP-G, DEP-B, HWY, AIR, HAR
HWY-P, AIR-P, HAR-EP

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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05414R
TPD5/02-01844R

November 13, 2002

Mr. Brian Minaal, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Minaal:

Subject: Primary Corridor Transportation Project

This is in response to the comments you made on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your November 3, 2000 letter regarding the MIS/DEIS. Part B responds to your May 7, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *The non-transit users should be apprised of the traffic congestion and delays they can expect with the pre-emption of traffic lanes and timing signals, especially since there is no plan to mitigate the adverse impacts.*

   Response: Traffic signals will not be pre-empted by the BRT. At certain intersections, BRT vehicles approaching a green signal will activate a 10-second extension of the green indication for that cycle only. BRT vehicles stopped at a red signal will move concurrently with the through traffic in the same direction, unless the BRT vehicle must turn or change lanes, in which case it will be given a 4-second green signal in advance of the general purpose traffic lanes. All traffic signal extensions and advance indications will be timed in the field during actual operation to minimize adverse effects on general traffic flow.

2. *Peak and non-peak traffic congestion information, in delay time and by roadway segments, should be included in the report; and because the implementation of the total system is critical to the system's performance, and it is highly doubtful that the total system can be implemented within a ten-year timeframe, information on the impacts during the interim period as well as upon completion of the system should be provided.*

   Response: Peak traffic congestion information is provided for the Year 2025 time frame per FTA and NEPA guidelines. By definition, non-peak traffic usually does not involve congestion. The project now has an implementation time frame of 15 years. As the project is implemented, the City will work with the State of Hawaii Department of Transportation to assess and mitigate traffic impacts related to interim conditions.

3. *The evaluation measures include a breakdown of transit travel time by segments (i.e., between Downtown and Kapolei; Downtown and Waikiki; Downtown and UH-Manoa; and Downtown and Kalihi). A similar breakdown by roadway segments of auto travel time should be provided and discussed.*

   Response: A table has been added to Chapter 1 in the FEIS to show auto travel times for the same origins and destinations as are shown for transit travel times in Chapter 4.

4. *The discussion on federal highway funding states that less than 20 percent of the total annual highway funding would be used for the project. While this may be true on a statewide basis, information should be provided which sets the project more appropriately within the context of funds available for metropolitan Honolulu, and for use on capital improvement projects.*

   Response: The financial plans in the MIS/DEIS and the SDEIS propose $160 million total in FHWA funding for the BRT alternative. This total has been reduced in the FEIS to $139.6 million over 9 years, with no single year exceeding $20 million. The total remaining FHWA funds available for other projects in the capital intensive project period is $955.3 million, as compared to the $701.1 million available in the MIS/DEIS financial plan. The amount of FHWA funds used for BRT would be less than 17 percent of the total annual highway funding for NHS, STP, CMAQ and IM funding only. FHWA Bridge Rehabilitation and Replacement, Metropolitan Planning, Innovative Projects/Recreational Trails, High Priority Projects, and Minimum Guarantee categories are not included in the total or percentage calculation. These numbers and analysis are included in Chapter 6 of the FEIS. The amount of funds available for metropolitan Honolulu are within the purview of the cooperative planning conducted by the transportation departments of the State and counties, and in conjunction with the Oahu Metropolitan Planning Organization. The amount planned for and allocated has historically fluctuated in response to major project needs.

5. *The report further states that no major capital projects would be deferred if either the TSM or BRT Alternatives were selected. This is not true.*

   Response: The financial analysis in Chapter 6 of the FEIS shows how the project could be funded without deferring any programmed major capital improvement project.

6. *Generally, only those projects programmed for implementation within the next three years were included in the analyses. Other highway projects identified in the current ORTP are underway and should also be reflected, including the Waimalu Viaduct widening, Nimitz Viaduct, the Freeway Management System, Ward Avenue Extension, and various ramp and interchange improvements. Additional projects have also been identified for the Ewa region.*

   Response: The updated transportation analysis for the FEIS includes all transportation projects that were adopted April 6, 2001 by OMPO in the TOP 2025 Plan.

7. *It has been the HDOT's commitment to the FHWA that we would improve the Interstate to standard. Where construction on the Interstate is required to support the transit alternative, the project should include restoring the segment to standard, including preservation/maintenance and safety measures, as may be required. This needs to be factored into the project scope and cost estimates.*

   Response: A list of potential design exceptions has been compiled and submitted to HDOT, with coordination to continue through the final design phase. The proposed improvements, except for

two elements, meet the "reduced" guidelines referenced in the *HOV Systems Manual* (NCHRP Report 414, 1998). The two elements are 1) there are no shoulders proposed for the "Shoulder Lane", and 2) no structural capacity improvements for bridges are proposed since no additional loads will be created.

Improvements to bring the Interstate to full AASHTO/FHWA standards would require the replacement of all overcrossing structures, widening of the Pearl City and Airport viaducts, and reconstruction of the Waiawa, Halawa, Pearl Harbor, and Keehi Interchanges. Many of these improvements may not be feasible. Close coordination with HDOT/FHWA and analysis would continue to determine locations where specific design features should be brought to higher standards.

8. *With the limitations on our fiscal and staffing resources, it would not be reasonable to assume that the highway elements of the project can be implemented within the ten-year time frame presented in the report. This list of projects requiring State and FHWA funds, and staff resources far exceed what is available. The commitment of State and Federal Highway funds needs to be resolved; policy decisions are yet to be made committing to the level of funding and timetable required for the project.*

   Response: The time frame for implementation is now 15 years. Both transit and highway elements of the project are included in the fiscally-constrained OMPO TOP 2025 list of projects. The timing of implementation of the project will be coordinated with the Hawaii Department of Transportation and the Federal Highways Administration through the Oahu Metropolitan Planning Organization.

9. *Moreover, our engineers estimate the costs to be substantially higher than the $200 million of FHWA and State funds assumed in the report.*

   Response: Subsequent meetings with SDOT engineers established that the differences in cost estimates would only result if the BRT project were required to meet full Interstate standards rather than the NCHRP standards that are proposed.

10. *Various concerns on the deployment of the afternoon zipper lane remain outstanding. These include the adverse impacts to the inbound traffic, and the entire scope of work required for the zipper project itself (due to related improvements).*

    Response: Included in the TOP 2025 fiscally-constrained projects is the widening of eastbound H-1 Freeway by one lane between Waiawa and Halawa Interchanges (project P-7). This planned improvement will provide six inbound lanes between Waiawa and Halawa Interchanges. The P.M. zipper lane will occupy two of these lanes. The remaining four lanes will allow inbound H-1 to operate at LOS E with the P.M. zipper lane deployed.

    The BRT project would coordinate closely with the Hawaii Department of Transportation with regard to transitions and location of the zipper lane vehicle garage.

11. *The project does not adequately address the substandard design and use of the shoulder lane, required structural support, modifications to existing interchanges for zipper lane access, and mitigation measures to address problems resulting from removal of the permanent median barriers (such as headlight glare).*

Response: See response to comment #7 regarding substenderd design. Shoulder lanes are no longer utilized, since the project assumes the implementation of the H-1 eastbound widening between Waiawa and Halawa interchanges.

With regard to structurel support on the Pearl City and Waimalu viaducts, the weight of the proposed movable barrier would be offset by removing the existing center barrier. There are no structural concerns es a result of adding zip moveble barriers on the Airport viaduct.

The modifications to existing interchanges for zipper lane access are defined in the preliminary engineering plans.

Research is being conducted to find movable barriers with provisions for headlight glare screen. Note, however, that AASHTO Guidelines do not indicate that anti-glare treatment in this area is required. The guidelines state that, "Where there is no fixed-source lighting, headlight glare across medians or outer separations can be a nuisance, particularly where the highway has relatively sherp curves. Under these conditions, some form of anti-glare treatment should be considered as part of the median barrier installation, provided it does not act es a snow fence and create drifting problems. "(A Policy on Geometric Design of Highways and Streets, AASHTO, 1994, pg.369). The location of concern has fixed-source lighting and does not have relatively sherp curves.

12. *The planned higher density in the urben core, and pre-emption of traffic lanes and timing signals will intensify the congestion problems, creating possible gridlock. In concept, this will increase the diversion to transit. In reality, the diversion will not occur until the entire system is in piece (otherwise, there would be no time savings); and the costs and time schedules appear to be overly optimistic. We cannot afford to be in gridlock for an extended "interim" period. The phesing of the project should be reconsidered to avoid teking of lenes until the final pheses.*

Response: Exclusive lanes will be implemented es transit and traffic conditions warrant them. The initial Waikiki branch of the BRT will travel in mixed-flow and semi-exclusive lenes. Early phases of the Dillingham segment and the UH-Manoa branch could be implemented without exclusive lanes, moving to exclusive lenes when traffic conditions indicate that they are needed to provide greater throughput for transit vehicles.

13. *Also, there would be those motorists uneble to divert to e transit alternative, such as freight movers and perents with student drop-offs. Reasonable alternatives or provisions for these "captive" auto users should be developed.*

Response: There is no intent to force "captive" auto users to divert to transit. There will still be an extensive network of arterial and local streets, and state highways and freeways that will continue to serve auto travel.

14. *The Honolulu International Airport (HNL) is e major trip attractor and employment site. Its patrons will not have access to the BRT since the neerest transit centers ere at Pearl City and Iwilei. Accommodations to provide a link to the HNL should be investigated.*

Response: Regional BRT passengers will be able to transfer to Routes 19 and 20 at the Middle Street Transit Center. These routes serve the Airport directly.

15. *The DEIS eliminates the highway only alternative and essentially pursues transit only alternatives. A more prudent approach may be to look at a combination of both. An enhanced transit system is definitely needed to address our congestion problems; but highway improvements are also required. A systematic, integrated implementation of both transit and highway improvements should be pursued.*

Response: OMPO's TOP 2025 Plan is the multi-modal and inter-modal transportation plan for Oahu of which the PCTP is the transit component of the Primary Corridor (Kapolei to Downtown). Therefore, the highway component of the Primary Corridor is addressed in the TOP 2025 Plan. Examples of highway projects in the Primary Corridor listed in the TOP 2025 Plan are: the H-1 WB Widening Waimalu Viaduct to Pearl City Off-ramp, H-1 EB Widening Waiawa to Halawe and H-1 WB Widening Vineyard to Middle Street.

16. *HDOT is aggressively pursuing the Waimalu Viaduct widening project, scheduled for completion in 2004. This will provide some relief for outbound afternoon traffic. Discretionary funds have been earmarked for the project. Aside from adding an additional lane between the Keonohl Overpass and Pearl City Off-ramp, this project will restore the interstate to standards, and include preservation/maintenance, structural reinforcement and other safety measures, as may be required. The proposed P.M. zipper and other outbound transit improvements should be deferred until the effectiveness of the Waimalu project can be assessed.*

Response: The Waimalu Viaduct widening is assumed to be part of the future highway network and its effect is included in the analyses. The P.M. zipper will work with the Waimalu Viaduct widening to provide a faster and less congested lane for transit and HOVs. It also will allow expedited BRT access via ramps to and from the zipper lane during peak periods.

17. *For the inbound morning traffic, we need to further examine the travel time to the proposed transit centers. It would appear that the bottlenecks and congestions are concentrated at the outskirts of Downtown, with the back up beginning at Middle Street. If we can provide improved accesses to the transit centers, and incentives for the motorists to change modes at these centers, the number of vehicles entering Downtown could be reduced. This can be done with or without the in-town BRT.*

Response: DTS agrees that improving the access to transit centers and locating the transit centers at strategic locations would provide incentives for people to switch modes from private automobiles to transit. The Refined LPA includes a Regional BRT component that extends from Kapolei to Middle Street and includes extending the existing A.M. zipper lane and adding a P.M. zipper lane. In addition, priority treatments for BRT are proposed for ramps at Kapolei, North-South Road, Luapele Drive near Aloha Stadium and Middle Street. These priority treatments will be constructed to facilitate movements from H-1 to the transit centers at these locations. There are also park-and-ride facilities planned to be located at Kapolei, North-South road, Aloha Stadium and Middle Street. DTS believes the Regional BRT alone would not be effective in getting people out of their cars. The combination of Regional and In-Town BRT is needed. The added attractiveness is demonstrated by the additional riders shown with the Refined LPA compared to the TSM Alternative. The TSM Alternative has many of the Regional BRT components but lacks the In-Town components.

18. *This strategy would mean continuing the bus service for the transit riders from the origin sites; and building up the transit centers and providing service from there for motorists who change modes*

enroute to their destinations. This should be done before implementing the In-town BRT because it may provide some congestion relief before pre-emptying any lanes and causing a prolonged gridlock situation.

Response: The In-Town BRT is a vital part of encouraging people to switch from private automobiles to transit because it will provide substantially improved transportation service within the urban core.

19. *In the meantime, HDOT does intend to pursue the Nimitz Viaduct project, which would further relieve congestion during the implementation of the In-town BRT.*

Response: The improvements to Nimitz Highway which were included in TOP 2025 adopted by OMPO on April 6, 2001 are included in the future transportation impact analysis for 2025.

20. *This type of strategy, an incremental implementation of the transit alternative, would not only allow us to spread out our financial and staffing resources, but more importantly, to re-evaluate the different phases of the total project and reassess the assumptions made.*

Response: The OMPO TOP 2025 includes the transit and highway projects approved for Oahu and the proposed funding sources.

Part B – SDEIS Comments

21. *As stated in our letters dated November 3, 2000 and April 15, 2002, before the City decides to implement actions which may adversely impact existing motorists, your EIS needs to fully disclose, and the public needs to be adequately informed of, traffic impacts which immediately will occur when measures are taken to give the In-Town BRT priority over other traffic. To date, sufficient information has not been provided in the City's EIS documents. We are especially concerned about traffic impacts to the State highway system when the In-Town BRT is implemented on King Street and Dillingham, Kapiolani, and Ala Moana Boulevards. As further indicated in our letter dated April 15, 2002, details of all proposed improvements within the State highway right-of-way (ROW) must be submitted for our review and approval.*

Response: The FEIS documents projected traffic impacts of the In-Town and Regional BRT in Section 4.4.2.

22. *Our Harbors Division strongly objects to any loss of prime harbor property makai of Ala Moana Boulevard because of potential constraints to container yard and cruise ship operations. As indicated in our letters dated October 24, 2001 and April 15, 2002, we request that the Final EIS fully address their concerns.*

Response: The Refined LPA no longer requires any State DOT property makai of Ala Moana Boulevard.

23. *Although the proposed Pier 2 Cruise Ship Terminal has been postponed, please consult the U.S. Coast Guard concerning design requirements, access limitations, and parking restrictions necessary to maintain security between the proposed Terminal and Iliolo Street.*

Response: The HCDA's most current plans reflect the Iliolo St. extension along Forrest Avenue. As a result, the Refined LPA now shows the BRT operating on Forrest Avenue and not Channel Street. Therefore, no conflicts with the Pier 2 cruise ship terminal are anticipated, and no Coast Guard consultation is deemed necessary.

24. *The Final EIS needs to update previous information about where and when the City proposes to convert existing traffic lanes to contra-flow and/or BRT use. There needs to be full, clear public disclosure of where roadway capacity would be lost or reduced and how this capacity displacement will be accommodated through the City's proposed mitigation strategies. Table 2.2-4 should be expanded to include a comprehensive summary of where and when EIS proposals for contra-flow would affect existing laneage on State highways, and when and where EIS proposals would affect existing contra-flow laneage on Kapiolani Boulevard.*

Response: The extension of the A.M. contraflow lane on the H-1 freeway will extend from the existing crossover no. 4, along the Airport Viaduct, to the intersection of Nimitz Highway and Sand Island Parkway. The number of outbound lanes will be reduced by one while the A.M. contraflow lane is deployed. The P.M. contraflow lane on the H-1 freeway will extend from the Pearl Harbor Interchange to the Waiawa Interchange. The number of inbound lanes will be reduced by two while the P.M. contraflow lane is deployed. Utilizing the existing shoulder lane from the Halawa Interchange to the Waiawa Interchange during the P.M. Peak hours will result in a net reduction of one lane for this area.

25. *At the time existing traffic lanes are initially converted to exclusive use by the proposed In-Town BRT and existing traffic signals are modified to give priority to the In-Town BRT:*

- *Which intersections and roadways will have reduced levels of service?*
- *How will traffic signal coordination and progression be effected and what are the potential impacts to ITS and traffic flow on the surrounding highway system?*
- *What will be the cumulative impacts on the duration and severity of traffic congestion at screen lines?*
- *What will be the cumulative impacts in terms of vehicle travel time delay along the major arterials where BRT operations will reduce roadway capacity?*
- *What share of trips will be made by bus?*
- *How many drivers will be worse off and how much more travel delay will they experience?*
- *How many bus riders will be better off and how much less travel delay will they experience?*

Response: Exclusive lanes will be implemented incrementally as traffic and transit conditions warrant them. Therefore, there is no time frame for the implementation of all exclusive lanes at once. The FEIS provides a snapshot of Year 2025 conditions, at which time all exclusive lanes are assumed to be implemented. Similarly, partial implementation exclusive lanes along BRT corridors are also a possibility, based on traffic and transit conditions.

26. *The Final EIS needs to evaluate the noise impacts, between the Pearl Harbor Interchange and the Waiawa Interchange, resulting from increased peak afternoon traffic volumes when the proposed westbound zipper lane is deployed on Interstate H-1.*

Response: Whether the Refined BRT Alternative or No-Build Alternative is implemented, afternoon peak-hour noise levels along the H-1 corridor will increase by 1 to 2 dBA in 2025. This increase is a result of an overall increase in future traffic volumes and cannot be attributed to the zipper lane, which accounts for only 4% of the projected total afternoon westbound peak-hour traffic on the H-1 Freeway. Vehicle speeds will play little or no role in the increased noise levels.

Because the No-Build and Refined LPA predicted H-1 noise increase is between 1 and 3 dBA, the change in traffic noise levels would range from imperceptible to barely perceptible for most people.

27. *The Final EIS needs to compare the benefits, costs, and drawbacks of full compliance with Interstate Standards for each proposed Design Exception. Full compliance with Interstate Standards is normally a reasonable alternative to Design Exceptions. Unless adequate justification is provided, we cannot support and FHWA may not grant even a temporary Design Exception for substandard at-grade highway shoulders.*

Response: Chapter 2, Section 2.2-7 of the FEIS describes the alternative standards proposed for the BRT improvements. These alternative standards have been used throughout the U.S. on similar projects in urban corridors with restricted rights-of-way. A comparison with full Interstate standards will be contained in the design exception report prepared during the final design phase of the project.

28. *The Final EIS needs to describe likely temporary construction-related impacts to the State highway system. Off-peak construction may not be sufficient to mitigate impacts. Other congestion mitigation strategies must be provided for construction-related impacts.*

Response: As with all construction projects, there will be impacts that would need to be mitigated. The BRT project will use best practice techniques and work with communities affected to mitigate construction-related impacts.

29. *The Final EIS needs to include estimates of daily boardings and alightings at the Aloha Stadium Transit Center by bus-riders using the proposed Luapele Drive ramp at the time when the City proposes that this ramp be completed. The Final EIS should include similar estimates for the proposed Kunia and Kapolei ramps at the time when the City proposes that these ramps be completed. And Table 4.1-7 should include similar estimates for all three ramps in 2025.*

Response: The Luapele Drive ramp will be built as part of the Refined LPA as an exclusive one-lane reversible ramp. Projected usage is 22 buses per hour in 2025. The project no longer calls for exclusive BRT ramps on H-1 at Kunia (North-South Road) or Kapolei (Palailai Road). Instead BRT buses will use the HDOT planned interchanges at these locations to access the H-1 express lanes.

30. *We would like to clarify statements about HDOT priorities in our letters dated November 3, 2000 and October 24, 2001. Unlike the City, we have a statewide system and need to meet statewide demands. Our highest priority is to maintain existing State highways and keep them safe. Our next priority is to make incremental improvements to benefit existing highway users. Unfortunately, our statewide needs far exceed available State and FHWA funds.*

Response: The term "competition" does not accurately depict the future programming opportunity for federal highway funds for the BRT. There has been a significant decision by the Oahu Metropolitan Planning Organization (OMPO) to include funding for the BRT in its long-range

transportation plan. Federal regulation (23 CFR, Part 450, Planning Assistance and Standards) requires that any project that requests the use of federal funds must be consistent with the regional transportation plan. In April 2001, the OMPO Policy Committee voted to approve the long-range regional plan (Transportation for Oahu Plan, TOP 2025) that includes the use of federal highway funds for BRT. The amount of federal highway funds for BRT included in the regional plan is comparable to that of the FEIS. Therefore, the FEIS financial plan is consistent with the approved regional transportation plan.

31. *The Oahu Metropolitan Planning Organization Policy Committee will approve the amount of Oahu FHWA and FTA funds available for the BRT or other projects. Over the past decade, the City has received an average of about $10 million/year of some kind of FHWA funds for a variety of projects including road resurfacing, road widening, new roads, traffic signals, traffic surveillance cameras, bikeways, bridges, street trees, underground utilities, and acquisition of shoreline property. In the future, the BRT will complete with other eligible, desirable projects for use of FHWA funds.*

Response: See response to comment #30.

32. *Previous and current HDOT comments must be addressed to our satisfaction.*

Response: HDOT comments have been addressed.

33. *Much more information is available to describe and evaluate the environmental impacts of the proposed Middle Street ramp and the proposed In-Town BRT than the proposed Regional BRT. Further analysis and a future Supplemental DEIS will be required for several key components of the Regional BRT.*

Response: The analysis level is commensurate with the impacts.

34. *The Final EIS needs a technical appendix to explain the assumptions and methodology used to quantify:*

- *travel demand*
- *peak spreading / duration of traffic congestion*
- *screenline capacity and level of service*
- *reductions in screenline throughout due to downstream congestion*
- *transit mode share*
- *vehicle miles of travel*
- *vehicle hours of delay*
- *screenline "person-carrying capacity"*
- *transit boardings per linked trip*
- *measures for traffic signal prioritization*

The technical appendix also needs to document that traffic forecasting models used for the EIS reasonably reflect the duration and severity of traffic congestion, transit mode share, vehicle miles of travel, and vehicle hours of delay under existing conditions.

Response: To address HDOT's concerns specifically, a separate technical traffic report that addresses the Refined LPA will be prepared and provided to HDOT in early 2003.

35. *The City should coordinate the BRT project with current HDOT projects to extend the existing morning H-1 zipper lane and provide peak morning eastbound contra-flow on Nimitz Highway.*

Response: The extension of the existing morning H-1 zipper lane on the airport viaduct is part of the BRT project and would work well with the contra-flow project proposed for Nimitz Highway.

We will send you 10 copies of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

HAWAII COMMUNITY DEVELOPMENT AUTHORITY

KAKAAKO
Where Honolulu Grows The Sun.

Benjamin J. Cayetano
Governor

Lori Ann C. Lum
Chair

Jan S. Yokota
Executive Director

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Web site
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Ref. Nos.: PL TRANS 7.14
GF COUN 5.17

April 8, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for the opportunity to review the Primary Corridor Transportation Project Supplemental Draft Environmental Impact Statement (SDEIS).

1. At the appropriate time, plan amendments must be processed to the extent that this project affects the Kakaako Mauka and Makai Plans. Please contact us to coordinate this.

2. On page 5-27, paragraph 2, Channel Street is not being reconstructed. The writer may be confusing Channel Street with Forrest Avenue which HCDA is planning to temporarily realign as a private roadway easement within the next year, and which plans should be incorporated into yours to avoid conflict.

3. We also point out that there is no existing public roadway connection between Ilalo Street and Channel Street and that there appears to be an inconsistency between your plans in the SDEIS and the DP public facilities map, which was sent for comment on March 20, 2002. The latter indicates an alignment over Buford Avenue (labeled "Papu Street") which does not match the alignment in Appendix B of the SDEIS.

4. For your information, the alignment map on page 2-20 does not include several HCDA and HCDCH projects.

AR00015394

5. Appendix B, drawing 1-9, conflicts with HCDA's planned Punchbowl Extension of Ilalo Street. This proposed alignment also conflicts with DOT's active use of the area between Ilalo and Channel Streets as mentioned in Item #4 of the DOT letter dated October 24, 2001, Appendix D.

6. In Appendix B, drawing 1-10, Forrest Avenue is mistakenly labeled as a City road. Forrest Avenue is a State (HCDA) road.

7. In Appendix B, drawing I-11, the plan shown for Ilalo Street is outdated and should be corrected.

If you have any questions, please do not hesitate to contact Teney Takahashi at 587-8162.

Sincerely,

Jan S. Yokota
Executive Director

JSY:TKT:gst
c: Genevieve Salmonson (OEQC)

8.17.7.6

FILE COPY

MAY - 3 2002

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP4/02-01387R

April 26, 2002

Ms. Jan S. Yokota
Executive Director
Hawaii Community Development Authority
677 Ala Moana Boulevard, Suite 1001
Honolulu, Hawaii 96813

Dear Ms. Yokota:

Thank you for transmitting your comments (dated April 8, 2002) for the Supplemental Draft Environmental Impact Statement, Primary Corridor Transportation Project. The following is our response in the same order as presented in your letter.

1. Your agency will be contacted to coordinate the Bus Rapid Transit (BRT) alignment and improvements with your plans for Kakaako Mauka and Makai.

2. The assumption that Channel Street will be constructed to connect with Ilalo Street was based on HCDA drawings dated July 8, 1999. We have since obtained updated HCDA drawings, and the BRT alignment has been revised accordingly to replace Channel Street with Forrest Avenue.

3. The Public Facilities Map will be changed in accordance with your comment regarding Buford Avenue (labeled "Papu Street").

4. The Kakaako Makai Branch map (Figure 2.2-6) on page 2-20 of the SDEIS will be revised to include the HCDA and HCDCH projects. These projects were provided by Mr. Teney Takahashi.

5. Similar to the response for Item No. 2 above, the HCDA drawings dated July 8, 1999 were used as a reference in designing the BRT alignment through this area. The purpose of this preliminary alignment in the SDEIS is to disclose environmental impacts of the eventual BRT system on this area. The BRT alignment has been revised to show Ilalo Street extension to Forrest Avenue (and not Channel Street).

6. Forrest Avenue will be correctly relabeled to indicate that it is owned by the State of Hawaii on Drawing No. I-10 in Appendix B.

7. Drawing No. I-11 in Appendix B was based on HCDA drawings dated July 8, 1999 as a reference. As a result of your letter, updated HCDA drawings for Ilalo Street have been obtained and the drawings revised accordingly.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

dc (N. Kawachika)

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Ms. Jan S. Yokota
Executive Director
State of Hawaii
Hawaii Community Development Authority
677 Ala Moana Boulevard
Suite 1001
Honolulu, Hawaii 96813

Dear Ms. Yokota:

Subject: Primary Corridor Transportation Project

This is in response to your April 8, 2002 letter regarding the Supplemental Draft Environmental Impact Statement (SDEIS). Your letter provided us with seven comments, which were addressed in our letter dated April 26, 2002.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
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FACSIMILE (808) 586-4186

November 6, 2000

Cheryl Soon
Department of Transportation Services
711 Kapiolani Blvd., #1200
Honolulu, Hawaii 96813

Attn: Kenneth Hameyasu

Dear Ms. Soon:

Subject: Draft Environmental Impact Statement (EIS) for Primary Corridor Transportation Project

We have the following comments to offer:

1. This office received complaints regarding the method of public input during the community presentations. Comments only were recorded, but there was no forum for open dialog in which attendees could interact with one another and with the presenters. Will you hold future presentations which will include true open dialogs?

2. Responses to comments: Some responses to comments made on the EISPN were too brief. While formulating responses to comments made on the draft EIS, please bear in mind the requirements of §11-200-22(c), which follows:

"The response to comments shall include: (1) Point-by-point discussion of the validity, significance, and relevance of comments; and (2) Discussion as to how each comment was evaluated and considered in planning the proposed action.

"The response shall endeavor to resolve conflicts, inconsistencies, or concerns. Response letters reproduced in the text of the final EIS shall indicate verbatim changes that have been made to the text of the draft EIS. The response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections, etc.). In particular, the issues raised when the applicant's or proposing agency's position is at variance with recommendations and objections raised in the comments shall be addressed in detail, giving reasons why

specific comments and suggestions were not accepted, and factors of overriding importance warranting an override of the suggestions."

3. Cultural impacts assessment: Act 50 was passed by the Legislature in April of 2000. This mandates an assessment of impacts to local cultural practices by the proposed project. In the final EIS include such an assessment. For assistance in the preparation refer to our *Guidelines for Assessing Cultural Impacts*. Contact our office for a paper copy or go to our homepage at http://www.state.hi.us/health/oegc/index.html. You will also find the text of Act 50 linked to this section of our homepage.

4. Vibration levels: Noise and vibration are listed together in the title of chapter 5. It appears there will be impacts from construction vibration, yet there is only a brief discussion of impacts and no mitigation measures listed. If operational vibrational impacts are not an issue, explain why, and also include your explanation in the executive summary.

5. Compatibility with land use policies: Provide a synopsis of this in the executive summary.

6. Legal challenge period: The legal challenge period for a final EIS is 60 days, not 30 as stated in chapter 1.4, #7, *Acceptance of the Final EIS/Record of Decision*.

7. Block J: In chapter 2, *Alternatives Considered*, Block J is listed as a park & ride site. Has this location been committed to this project?

8. Candidate transit centers: Section S.7 in the executive summary, *Issues for future consideration*, states that "supplemental environmental documentation" would be prepared for selected transit center sites under the TSM or BRT alternatives. Sites not fully described in this EIS will need to have impacts and mitigation measures disclosed in additional environmental assessments or environmental impact statements.

9. Candidate technologies: Chapter 2.2.3, #5, *Transit technology for the In-town BRT System* does not discuss impacts and related mitigation measures for the candidate technologies. These must be disclosed in a supplemental environmental disclosure document.

10. Unresolved issues:
a. In addition to the synopsis given in the executive summary, a full discussion of unresolved issues is required, along with an explanation of how these issues will be resolved or overriding reasons for proceeding with the project.
b. The results of the water quality survey for the EPA, the results of the hazard

materials survey and required mitigation measures for each should be included in the final EIS or discussed in the section on unresolved issues.

11. Visual resources:
It is difficult to tell from the drawing in figure 2.2-4 what the final appearance of a typical transit stop will look like. For each of the sensitive areas, show the impact by superimposing a photo or rendering of the proposed facility onto photographs of the affected areas taken from public vantage points, including the area fronting the Duke Kahanamoku statue in Waikiki.
Similarly, include a superimposed rendering of a sound barrier wall in one of the potentially affected neighborhoods.

12. Section 4(f)/Parkland evaluation: In the final EIS please explain why impacts to Ala Moana Park are not subject to a 4(f) evaluation. Expand your discussion of potential impacts through the loss of adjacent traffic lanes and on-street parking. Are any mitigation measures planned to offset these impacts?

13. Permits: A listing of the status of each permit or approval is required by HAR §§11-200-17 (h). Please add this to your permits chart in chapter 7.5 in the final EIS. If you have not yet applied for some of the permits, then list the expected date of application.

If you have any questions call Nancy Heinrich at 586-4185.

Sincerely,

for GENEVIEVE SALMONSON
Director

c: David Atkin, Parsons Brinckerhoff

BENJAMIN J. CAYETANO
GOVERNOR

APR 2 9 2002

GENEVIEVE SALMONSON
DIRECTOR

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April 29, 2002

Cheryl Soon
Department of Transportation Services
650 South King St., 3rd floor
Honolulu, Hawaii 96813

Attn: Faith Miyamoto

Dear Ms. Soon:

Subject: Supplemental Draft Environmental Impact Statement (EIS) for **Primary Corridor Transportation Project**

We have the following comments to offer:

1. Public meetings: This office received complaints regarding the method of public input during the community presentations. Comments only were recorded, but there was no forum for open dialog in which attendees could interact with one another and with the presenters. In the final EIS, give a description of the methods used to solicit and record comments if the above is incorrect. Also, following Table A-4, include a brief summary of the issues raised.

2. Compatibility with land use policies: In addition to consistency with land use plans, list those public policies with which the Primary Corridor is in conflict, and how the conflict or inconsistency will be handled.

3. Definitions; acronyms: Section 5.10.4 lists "Kupuna Iwi." Please add this term to the glossary. In Table S.4-1 define G.O., UZA and FGM, or add them to the acronyms list.

4. Unresolved issues:
These need to be listed in a separate section of the final EIS, along with a discussion of how they will be resolved, or an explanation for proceeding with the project if they are not resolved. Also include a synopsis of this discussion in the summary section.
If mitigation measures for an issue are not yet ready to be selected, you may list all possible mitigation measures and indicate that measures will be chosen from that list at the appropriate time.

The following issues in the SDEIS appear to be unresolved. They either need to be delineated in the final EIS along with their mitigation measures or listed as unresolved issues. If the latter, indicate how they will be resolved or, if that is impossible to know at this time, indicate that they will undergo a public review in a future EA or EIS.

a. *Visual Impacts (section 5.4.2)*: What are the visual impacts in the Special Districts and how will they be mitigated?
b. *Ground water impacts (section 5.8.2)*: Indicate the outcome of your coordination with the EPA and mitigation measures planned.
c. *Loss of parking and loading zones (sections 4.3.4, 4.4.4, 5.11.1)*: What mitigation measures are planned to mitigate the loss of street parking on, among other locations, Ala Moana Boulevard along Ala Moana Park, and the loss of loading zones?

If you have any questions call Nancy Heinrich at 586-4185.

Sincerely,

GENEVIEVE SALMONSON
Director

c: Robert Bramen, Parsons Brinckerhoff

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CHERYL D. SOON
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GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05379R
TPD4/02-01691R

November 13, 2002

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
236 South Beretania Street
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two Parts. Part A responds to the comments in your November 6, 2000 letter regarding the MIS/DEIS. Part B responds to the comments in your April 29, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS

1. *This office received complaints regarding the method of public input during the community presentations. Comments only were recorded, but there was no forum for open dialog in which attendees could interact with one another and with the presenters. Will you hold future presentations which will include true open dialogs?*

   Response: We take exception to this statement. A considerable amount of time, effort, and expense was put to public input. In fact, the project refinements discussed in the SDEIS are entirely a result of the input and dialogue coming out of these meetings.

   Since the PCTP and Trans2K began in 1998, we have had hundreds of meetings. The amount and type of dialogue varied depending on the project phase. We have used every conceivable type of communication format at these meetings from brainstorming, questions/answers, powerpoint presentations, display boards, interactive website, radio, television, and newspapers. Public representatives have traveled with official City delegations to places such as Portland, Oregon; Vancouver British Columbia; San Jose, California; Curitiba, Brazil; Miami Florida; and Los Angeles, California.

   Only formal public hearings, such as the DEIS scoping meeting, took the form of a presentation followed by the recording of comments. Even at these public hearings, there typically involved an "open-house" format before and after the taking of oral testimony so that participants could have open dialogue with the DTS, their consultants, and other meeting attendees.

   Please see the FEIS Appendix A, which discusses the comments and coordination. The project's public involvement continues to be a major focus.

2. *Some responses to comments made on the EISPN were too brief. While formulating responses to comments made on the draft EIS, please bear in mind the requirements of § 11-200-22(c): "The response to comments shall include: (1) Point-by-point discussion of the validity, significance, and relevance of comments; and (2) Discussion as to how each comment was evaluated and considered in planning the proposed action. "The response shall endeavor to resolve conflicts, inconsistencies, or concerns. Response letters reproduced in the text of the final EIS shall indicate verbatim changes that have been made to the text of the draft EIS. The response shall describe the disposition of significant environmental issues raised. In particular, the issues raised when the applicant's or proposing agency's position is at variance with recommendations and objections raised in the comments shall be addressed in detail, giving reasons why specific comments and suggestions were not accepted, and factors of overriding importance warranting an override of the suggestions."*

   Response: DTS has satisfied the requirements of 11-200-22C in its responses to the EISPN comments. The comments received on the MIS/DEIS and SDEIS have also been answered in the FEIS.

3. *Act 50 was passed by the Legislature in April of 2000. This mandates an assessment of impacts to local cultural practices by the proposed project. In the final EIS include such an assessment.*

   Response: The results of the Act 50 assessment were presented in the SDEIS and FEIS. Before the Act 50 Assessment was initiated, project team members met with OEQC and OHA personnel to discuss the scope.

4. *Noise and vibration are listed together in the title of chapter 5. It appears there will be impacts from construction vibration, yet there is only a brief discussion of impacts and no mitigation measures listed. If operation vibrational impacts are not an issue, explain why, and also include your explanation in the executive summary.*

   Response: Noise and vibration levels during construction would be subject to the requirements of the State Department of Health. The BRT is a rubber-tired vehicle. Vibration from rubber-tired vehicles, such as buses and trucks, is not perceptible, even in locations close to major roads. Section 5.6.1.2 of the FEIS discusses ground vibration from BRT vehicles and FTA vibration criteria. The Executive Summary includes the explanation.

5. *Compatibility with land use policies – Provide a synopsis of this in the executive summary.*

   Response: The requested synopsis is provided in the FEIS Executive Summary.

6. *The legal challenge period for a final EIS is 60 days, not 30 as stated in chapter. 1.4, #7, Acceptance of the Final EIS/Record of Decision.*

   Response: The legal challenge period described in the FEIS has been changed from 30 days to 60 days.

7. *In chapter 2, Alternatives Considered, Block J is listed as a park & ride site. Has this location been committed to this project?*

   Response: Block J is no longer being considered as a potential park-and-ride site.

8. *Chapter 2.2.3, #5, Transit technology for the In-town BRT System does not discuss impacts and related mitigation measures for the candidate technologies. These must be disclosed in a supplemental environmental disclosure document.*

   Response: The issue of technology selection is discussed in Chapter 2 of the FEIS, which describes a screening process of candidate technologies that was conducted. This screening resulted in two candidate technologies: Embedded Plate Technology and Hybrid-Electric Propulsion System. Particular attention is paid to differences in environmental performance between these technologies. Where appropriate, differences in impacts that result from variation in technology are specifically identified in the FEIS, Chapter 5.

9. *In addition to the synopsis given in the executive summary, a full discussion of unresolved issues is required, along with an explanation of how these issues will be resolved or overriding reasons for proceeding with the project.*

   Response: The requested information will be contained in the FEIS.

10. *The results of the water quality survey for the EPA, the results of the hazard materials survey and required mitigation measures for each should be included in the final EIS or discussed in the section on unresolved issues.*

    Response: As per clarification received July 13, 2001 via personal communication with OEQC staff, this comment refers to the sole source aquifer ground water impact assessment under Section 1424(e) of the Safe Drinking Water Act, as cited on page 5-59 of the MIS/DEIS. Coordination with the EPA on the SOBA ground water impact assessment has been completed and the results included in Section 5.8.2 of the FEIS.

    Sections 3.9 and 5.12.9 include the results of the hazardous materials survey conducted and potential mitigation measures.

11. *It is difficult to tell from the drawing in Figure 2.2-4 what the final appearance of a typical transit stop will look like. For each of the sensitive areas, show the impact by superimposing a photo or rendering of the proposed facility onto photographs of the affected areas taken from public vantage points, including the area fronting the Duke Kahanamoku statute in Waikiki.*

    Response: Some conceptual design work was done to give various community working groups a sense of what a transit stop could look like. Some of these concepts are included in Section 5.4 – Visual and Aesthetics so readers have an idea of how a BRT stop can be designed to enhance urban form. Each location is unique, however, and conceptual designs were not developed for every stop. The BRT stop on Kalakaua Avenue near Uluniu Street will not have a canopy so that the Duke Kahanamoku statue will not be affected. The traction power substation originally shown in the vicinity of the statue has also been relocated. (See Appendix B Preliminary Engineering Drawings.)

12. *Similarly, include a superimposed rendering of a sound barrier wall in one of the potentially affected neighborhoods.*

    Response: To be effective, a sound wall requires height and mass be determined by an acoustical engineer. One example of a sound wall is the CMU walls found along the Salt Lake Boulevard Corridor near Aloha Stadium (split face and creeping fig). Appropriately landscaped, it

can be a positive element along the corridor. The FEIS Section 5.4 – Visual and Aesthetics contains a conceptual drawing of a sound wall to show how it can be designed without being visually intrusive.

13. *In the final EIS please explain why impacts to Ala Moana Park are not subject to a 4(f) evaluation. Expand your discussion of potential impacts through the loss of adjacent traffic lanes and on-street parking. Are any mitigation measures planned to offset these impacts?*

    Response: A Section 4(f) Evaluation was not conducted for Ala Moana Regional Park because none of the alternatives would require the acquisition of park property. Although, the In-Town BRT system would displace on-street parking on Ala Moana Boulevard (see Section 4.3 of the EIS), which is used by park patrons on Sundays and certain holidays, this is not considered a Section 4(f) "use" because the loss of this parking would not impair the functions of Ala Moana Regional Park. The parking on Ala Moana Park Drive, Ala Moana Recreation Area (Magic Island) and other locations within the park will not be affected.

14. *A listing of the status of each permit or approval is required by HAR §11-200-17(h). Please add this to your permits chart in chapter 7.5 in the final EIS. If you have not yet applied for some of the permits, then list the expected date of application.*

    Response: The tables have been revised to indicate the status of each permit or approval and expected date of application.

Part B – SDEIS

15. *Public meetings: This office received complaints regarding the method of public input during the community presentations. Comments only were recorded, but there was no forum for open dialog in which attendees could interact with one another and with the presenters. In the final EIS, give a description of the methods used to solicit and record comments if the above is incorrect. Also, following Table A-4, include a brief summary of the issues raised.*

    Response: We are aware of a single complaint which was in reference to the formal SDEIS April 20, 2002 public hearing. This does not reflect the working group or other public meeting formats. Nor does it recognize the City Council's public hearing meetings on the BRT during the City budget and Public Facilities Map both of which were occurring around this same time.

    The April 20, 2002 public hearing was intentionally set-up to allow public dialogue. For the first hour, there was an open house where attendees could view the various project components (engineering, visual, history, traffic, Act 50, etc.), which were displayed on boards and have an open dialogue with the project team members and one another. To encourage attendees that were reticent to speak in front of a large group of people, we had the court reporter available to record comments on a one-on-one basis before the formal public hearing began. It should be noted that only one individual took advantage of recording their comments one-on-one with the court reporter. After the open house, the formal public hearing started, speakers were allowed three minutes to give their testimony, which the court reporter recorded. People wanting to speak could sign-up at any time during the public hearing and were allowed to speak.

16. *Compatibility with land use policies: In addition to consistency with land use plans, list those public policies with which the Primary Corridor is in conflict, and how the conflict or inconsistency will be handled.*

    Response: The plans and policies described in the DEIS, SDEIS, and FEIS Sections 3.1 and 5.1) are those relevant to the project site (e.g. PUC Development Plan) or the proposed project (e.g., Transportation for Oahu Plan 2025). The BRT alternative is consistent with all the relevant plans and policies.

17. *Definitions; acronyms Section 5.10.4 lists "Kupuna Iwi." Please add this term to the glossary. In Table S.4-1 define G.O., UZA and FGM, or add them to the acronyms list.*

    Response: The FEIS's glossary includes Kupuna Iwi. Table S.4-1 defines the requested acronyms.

18. *Unresolved issues: There need to be listed in a separate section of the final EIS, along with a discussion of how they will be resolved, or an explanation for proceeding with the project if they are not resolved. Also include a synopsis of this discussion in the summary section.*

    Response: The summary contains an "unresolved issues" section and addresses how these issues will be resolved.

19. *If mitigation measures for an issue are not yet ready to be selected, you may list all possible mitigation measures and indicate that measures will be chosen from that list at the appropriate time.*

    Response: Where mitigation measures have not been selected, the FEIS lists the possible mitigation measures and indicates the final mitigation will be chosen from those presented.

20. *Visual impacts (section 5.4.2): What are the visual impacts in the Special Districts and how will they be mitigated?*

    Response: Depending on the structure (e.g., shelters) allowed for the transit stop, there might be no visual impacts in a particular special district. Some of the special districts are historic, such as Chinatown, and the project's memorandum of agreement will specify the physical parameters of transit stops in the historic districts. In other special districts, the transit stops will abide by the land use ordinances specifically developed for these districts.

21. *Ground water impacts (section 5.8.2): Indicate the outcome of your coordination with the EPA and mitigation measures planned.*

    Response: Coordination with EPA is continuing. Proposed mitigation measures center around compliance with regulations for underground storage tanks and the containment of runoff and inadvertent material releases from the park-and-rides and from the maintenance facility.

22. *Loss of parking and loading zones (sections 4.3.4, 4.4.4, 5.11.1): What mitigation measures are planned to mitigate the loss of street parking on, among other locations, Ala Moana Boulevard along Ala Moana Park, and the loss of loading zones?*

    Response: As discussed in Section 4.3.4 of the MIS/DEIS and the SDEIS, parking demand in the PUC is expected to decline under all Build alternatives, especially along the transit spine in the Refined BRT Alternative, because transit is expected to divert people from driving personal vehicles. In areas where a large concentration of parking spaces would be effected, replacement parking in new off-street parking facilities would be considered, but only if they meet other livable community objectives and are the result of community-based planning. The community planning

process will be an integral part of the design phase to help mitigation any potential parking and loading impacts to specific neighborhoods. It will not be feasible to provide replacement parking as mitigation for parking impacts on Ala Moana Boulevard. However, replacement parking will be provided in the neighborhood for impacts on University Avenue. On Kuhio Avenue in Waikiki, turnout bays will be provided to continue allowing loading during designated hours.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover to confirm distribution of the FEIS. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

September 7, 2000

Ms. Cheryl D. Soon, Director
City & County of Honolulu
Department of Transportation Services
711 Kapiolani Blvd., Suite 1200
Honolulu, Hawai'i 96813

EIS# 419

Subject: Major Investment Study/Draft Environmental Impact Statement for Primary Corridor Transportation Project

Dear Ms. Soon,

Thank you for the opportunity to review and respond to the above-referenced document. The Office of Hawaiian Affairs reaffirms our previously submitted comments in our EISPN response letter dated May 28, 1999 and your department's reply of August 16, 2000.

If you have any questions, please contact Ken R. Salva Cruz, Policy Analyst, at 594-1847.

Sincerely,

Colin C. Kippen, Jr.
Deputy Administrator

cc: Board of Trustees
OEQC
Parsons Brinckerhoff Quade & Douglas, Inc.
File

PHONE (808) 594-1888

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 600
HONOLULU, HAWAII 96813

FAX (808) 594-1865

02 APR 2 PM 2:16

HRD 02/129

March 21, 2002

Ms. Cheryl D. Soon, Director
Dept. of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, HI 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project

We have received and reviewed the supplemental draft. We do not have substantive comments to offer relating to the implementation or revision of the plan. From review of the materials, OHA understands that your determination is that no archaeological resources are anticipated to be affected by this undertaking. OHA will rely on your assurances that proper mitigation and consultation shall occur should any unanticipated or unidentified cultural, historic, or burial sites or items be encountered during project development.

Thank you for the opportunity to review and comment relating to your SDEIS document. If you have any questions, please contact Wayne Kawamura, Policy Analyst at 594-1945, or email him at waynek@oha.org.

Sincerely,

Colin Kippen, Jr.
Deputy Administrator

CK:wk

cc: BOT
ADM

PHONE (808) 594-1888

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 600
HONOLULU, HAWAII 96813

FAX (808) 594-1888

May 21, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapi'olani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Re: Primary Corridor Transportation Project

Dear Ms. Soon:

Thank you for the opportunity to comment on the Notice of Intent to prepare and Environmental Impact Statement for the Primary Corridor Transportation Project. We would also like to thank Faith Mayanaco from your office for taking the time to review the project with us on May 21, 1999.

At our meeting, we discussed the possible routes and configurations of the system. Our main concern is for routes that will involve coastal or previously coastal areas. In those areas, the likelihood of finding burials, cultural or archaeological resources is much greater. When routes or configurations affect those areas we urge you to prepare detailed archaeological and cultural information and to address mitigation in a manner which will minimize the concerns of the native Hawaiian community.

In order to accomplish this task we suggest that:

- An archaeological survey of the project area must be completed.
- A determination of eligibility for the NHR register must be completed for cultural/archaeological sites found within the project area.
- Meaningful, pre-decision consultation with OHA, as required by the National Historic Preservation Law, must occur.

In addition, gathering and religious rights may exist within the project corridor in those areas which have not been previously used for transportation. It is essential that the existence of these rights be determined early. In order to accomplish this, we suggest that you work with

Ms. Cheryl D. Soon
May 28, 1999
Page two

a Hawaiian cultural expert. We suggest that this person(s) should be recognized within the Hawaiian community for his/her cultural expertise. Hawaiian culture exists and is practiced every day in Hawaii. We caution that the concerns of the community will not be addressed if the cultural analysis is provided solely by an archaeologist or anthropologist.

Again, thank you for the opportunity for early participation in this project. If you have any questions, please contact Lynn Lee, EIS Planner at 594-1916.

Sincerely,

C. Sebastian Aldet
Land and Natural Resources Division Officer

cc: Board of Trustees

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01241R

November 13, 2002

Mr. Clyde Namuo
Administrator
Office of Hawaiian Affairs
State of Hawaii
711 Kapi'olani Boulevard, Suite 500
Honolulu, Hawai'i 96813

Dear Mr. Namuo:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your September 7, 2000 letter regarding the MIS/DEIS. Part B responds to your March 21, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *Our main concern is for routes that will involve coastal or previously coastal areas. In those areas, the likelihood of finding burials, cultural or archaeological resources is much greater. When routes or configurations affect those areas we urge you to prepare detailed archaeological and cultural information and to address mitigation in a manner which will minimize the concerns of the native Hawaiian community. In order to accomplish this task we suggest that 1) an archaeological survey of the project area must be completed. 2) A determination of eligibility for the NHR register must be completed for cultural/archaeological sites found within the project area. 3) Meaningful, pre-decision consultation with OHA, as required by the National Historic Preservation Law, must occur.*

   Response: 1) An archeological assessment has been prepared and the results of the assessment and included in the FEIS. 2) Potential historic properties found within the area of potential effect have been evaluated in accordance with Federal and State Significance Criteria. 3) The Office of Hawaiian Affairs has been consulted and will continue to be consulted as the project moves forward.

2. *In addition, gathering and religious rights may exist within the project corridor in those areas which have not been previously used for transportation. It is essential that the existence of these rights be determined early. In order to accomplish this, we suggest that you work with a Hawaiian cultural expert. We suggest that this person(s) should be recognized within the Hawaiian community for his/her cultural expertise. Hawaiian culture exists and is practiced every day in Hawaii. We caution that the concerns of the community will not be addressed if the cultural analysis is provided solely by an archaeologist or anthropologist.*

   Response: An Act 50-Cultural Impact Assessment Project Report was prepared and made part of the SDEIS and FEIS. OEQC and OHA were consulted on the scope of the study, which included convening a panel of cultural experts to determine whether the BRT Alternative would adversely affect gathering, religious and cultural activities occurring in the project area. OHA participated in the panel discussions.

Part B – SDEIS Comments

3. *From review of the materials, OHA understands that your determination is that no archaeological resources are anticipated to be affected by this undertaking. OHA will rely on your assurances that proper mitigation and consultation shall occur should any unanticipated or unidentified cultural, historic, or burial sites or items be encountered during project development.*

   Response: OHA is correct in its assumption.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

UNIVERSITY OF HAWAI'I

SENIOR VICE PRESIDENT FOR ADMINISTRATION

November 6, 2000

MEMORANDUM

TO: Cheryl D. Soon, Director
City and County of Honolulu
Department of Transportation Services

FROM: Allan Ah San
Associate Vice President for Administration

SUBJECT: Major Investment Study
Draft Environmental Impact Study
Primary Corridor Transportation Project

We have reviewed the Draft Environmental Impact Statement (DEIS) for the Primary Corridor Transportation Project. If the project results are successful, the University of Hawai'i System island wide will benefit by becoming more convenient and accessible. The strategy to mitigate traffic congestion by getting people out of their cars while they move around the community and encouraging convenient, attractive public transportation, bicycling and pedestrian linkages will be beneficial to our quality of life now and in the future.

The University supports various forms of public and private transportation that will move larger quantities of people and reduce individual vehicular usage. The Master Plan for the University of Hawai'i at Mānoa campus has long included access for rapid transportation as illustrated by the right-of-way througb the lower campus. Further, the master plan for the central campus emphasizes pedestrian circulation through paths, malls and plazas excluding vehicles except for emergency and service use. Similar to the hub-and-spoke concept described in the DEIS, the University master plan calls for "gateways" which are the main pedestrian entrances to the primary malls on the campus. The University gateway at Metcalf and the Dole Street gateway near Law School are the two primary pedestrian entrances we would like to see developed as links between various forms of transportation.

Currently, we are working with the City and County of Honolulu to develop the Sinclair Circle bus stop noted on the DEIS as the UH Mānoa Transit Stop. Questions relative to the DEIS and this designated transit stop are as follows:

1. Currently, Sinclair Circle is shared by vehicles as a drop-off and pick-up location and by vehicles entering and exiting Bachman Hall parking lot. For a bus to turn around towards makai, it must swing across three lanes of University Avenue traffic near a busy intersection. How will this hazardous condition or safety issue be resolved?

2. The Draft Conceptual Design Drawings indicate a radius turn that would appear to eliminate one of the large monkey pod trees lining both sides of University Avenue. This was not listed in the DEIS environmental analysis although the document notes the area as a "special view opportunities area." Are the trees to remain?

3. Will the transit system have an impact on the historic Founders' Gate (1933) on the corner of University Avenue and Dole Street? The Founders' Gate was not documented in the DEIS although it is listed with the State Historic Preservation Division and is within the University of Hawai'i Historic District.

4. The DEIS delineates the University of Hawaii Historic District on figure 3.10-1A and lists it along with Wist Hall in Table 3.10-1 yet the boundary excludes the College of Education and Lab School where Wist Hall, as well as other Historic properties are located. What are the boundaries of the District?

5. The DEIS indicates the transit system is to be located on a median strip. How will this impact turning lanes, such as the left and right turns from University Avenue to Dole Street?

c: The Honorable Benjamin J. Cayetano
Parsons Brinckerhoff Quade and Douglas, Inc.
Kalvin Kashimoto

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05423R

November 13, 2002

Mr. Allan Ah San
Associate Vice President of Administration
University of Hawaii
2444 Dole Street
Bachman Hall
Honolulu, Hawaii 96822

Dear Mr. Ah San:

Subject: Primary Corridor Transportation Project

This is in response to your November 6, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Similar to the hub-and-spoke concept described in the DEIS, the University master plan calls for "gateways" which are the main pedestrian entrances to the primary malls on the campus. The University gateway at Metcalf and the Dole Street gateway near Law School are the two primary pedestrian entrances we would like to see developed as links between various forms of transportation.*

   Response: Meetings were held with UH – Manoa Facilities personnel to discuss BRT stop design treatments for Sinclair Circle. Goals used to develop concepts included preserving the tree canopy, keeping the lawn area open, and possibly incorporating Bachman Hall and Founders Gate design features. Additionally, the BRT shelter could be the impetus for a student-gathering place beyond the shelter and incorporate an arcade. The proposed parking structure was assumed to be 120 feet wide with two levels, possibly three. UH – Manoa Facilities personnel suggested that the Sinclair Circle stop should incorporate more of the Founders Gate design, with low walls and UH insignia. In addition to concepts for the Sinclair Circle BRT stop, concepts for the Puck's Alley BRT stop were presented that showed how more pedestrian-friendly linkages could be established to the UH campus.

2. *Currently, we are working with the City and County of Honolulu to develop the Sinclair Circle bus stop noted on the DEIS as the UH Manoa Transit Stop.*

   Response: Using the Sinclair Circle as a BRT stop is compatible with the bus stop currently being developed. Coordination with the UH-Manoa Facilities personnel has continued throughout the project development. The project personnel currently working on developing the Sinclair Circle bus stop also attended those meetings.

3. *Currently, Sinclair Circle is shared by vehicles as a drop-off and pick-up location and by vehicles entering and exiting Bachman Hall parking lot. For a bus to turn around towards makai, it must swing across three lanes of University Avenue traffic near a busy intersection. How will this hazardous condition or safety issue be resolved?*

   Response: A new traffic signal will be provided on University Avenue at Sinclair Circle to accommodate the safe turning of BRT vehicles and buses.

4. *The Draft Conceptual Design Drawings indicate a radius turn that would appear to eliminate one of the large monkey pod trees lining both sides of University Avenue. This was not listed in the DEIS environmental analysis although the document notes the area as a "special view opportunities area." Are the trees to remain?*

   Response: One monkeypod and three other trees (two shower trees and one false olive tree) at Sinclair Circle will need to be relocated on-site. In addition, the rainbow shower saplings in the University Avenue median between Kaiolani Boulevard and Dole Street, would be effected. The tree impacts associated with the Refined LPA were included in the SDEIS and are in the FEIS.

5. *Will the transit system have an impact on the historic Founders' Gate (1933) on the corner of University Avenue and Dole Street? The Founders' Gate was not documented in the DEIS although it is listed with the State Historic Preservation Division and is within the University of Hawaii Historic District.*

   Response: Section 3.10.2 of the MIS/DEIS under the University of Hawaii Historic District, identified the historic Founders Gate. The Refined LPA will not effect this historic property because University Avenue will not be widened along that section.

6. *The DEIS delineates the University of Hawaii Historic District on figure 3.10-1A and lists it along with Wist Hall in Table 3.10-1 yet the boundary excludes the College of Education and Leb School where Wist Hall, as well as other Historic properties are located. What are the boundaries of the District?*

   Response: Figure 3.10-1A of the MIS/DEIS erroneously delineated the University of Hawaii Historic District. The figure has been corrected in the FEIS to include the Wist Hall area.

7. *The DEIS indicates the transit system is to be located on a median strip. How will this impact turning lanes, such as the left and right turns from University Avenue to Dole Street?*

   Response: At Dole Street, the BRT will be operating in an exclusive median lane on University Avenue in the makai direction and in a curbside general-purpose lane mauka bound. There will be the same number of lanes as today mauka bound, and one less lane makai bound at the Dole Street intersection. The existing number of turning lanes will be maintained.

We will send you a copy of the Final Environmental Impact Statement under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

University of Hawai'i at Mānoa

Environmental Center
A Unit of Water Resources Research Center
2550 Campus Road • Crawford 317 • Honolulu, Hawai'i 96822
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

November 3, 2000
RE: 0713

Ms. Cheryl Soon
City and County of Honolulu
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Primary Corridor Transportation Project
Major Investment Study/Draft Environmental Impact Statement
Honolulu and Ewa, Oahu

The City and County of Honolulu Department of Transportation Services proposes the implementation of programs to address existing and future mobility constraints in the primary transportation corridor of Oahu, which stretches from Kapolei in the Ewa district to the University of Hawaii at Manoa and Waikiki in the Honolulu district. The purposes of the progrject are to (1) "Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile" (2) support desired development patterns." (3) improve the transportation linkage between Kapolei and Honolulu's Urban Core" (PUC), and (4) "Improve the transportatinn linkages between communities and the PUC" (page 1-4 to 1-6).

This review was conducted with the assistance of Karl Kim, Urban and Regional Planning; and Panos Prevedouros, Civil Engineering.

General Comments

This Major Investment Study / Draft Environmental Impact Statement (MIS/DEIS) provided much useful information on the existing conditions within the project area, as well as on the proposed plans. However, there were several sections that could have been developed more fully in order to provide a more complete picture of the proposal. These sections include the discussion of alternatives, the discussion on the methodology used to predict traffic impacts, safety issues, energy impacts, and environmental justice.

Discussion of Alternatives

Our reviewers felt that there was insufficient consideration of alternatives. Specifically, additional alternatives were not adequately sought-out, initial alternatives such as the light rapid-transit alternative were eliminated prematurely, and additional alignments and siting for automated, grade-separated people-mover systems could have been further studied.

In addition to the No build, Transportation System Management (TSM), and Bus Rapid Transit (BRT) alternatives, the City should have included a rail alternative. The logic and justification for excluding the fixed rail option is not adequately described. It is not clear why a grade-separated, automated system - using technology similar to Vancouver's system or various Airport People Movers - was not included for analysis. Based on the information furnished in Section 2.6.1 (Alternatives Considered and Eliminated), it appears that there are distinct advantages of grade separation and automation. The problems seem less to do with the technology, per se, than with routing, siting, visual obstructions, and other factors. Automation, moreover, offers clear advantages in terms of controlling labor costs and providing more flexible, more demand responsive service. To eliminate this technology simply because it failed to garner the necessary support in the past - seems to be a somewhat hasty decision. There was a tremendous amount of information and knowledge gained during the past efforts to implement such a system. That experience could be easily included, updated, and presented in this document. Moreover, the concern in the past was related to cost and visual obstruction. A more detailed analysis of total costs, including the differences in operating costs for an automated, grade-separated system and the proposed BRT alternative would provide instructive. In any case, the Environmental Impact Statement (EIS) is required to "describe in a separate and distinct sectionalternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected" (Hawaii Administrative Rules 11-200-17(f)).

The MIS/DEIS failed to realize the positive aspects of automobile-based transport and should have explored such dimensions. For this reason alone, a major mass transit system expansion will fail to produce sufficient benefits in the absence of a major economic or fuel crisis. A sample of some research on the efficiency, effectiveness, and desireability of automobile-based transport is offered below.

> "The stereotypes suggest that for most commuters the trek by car to work is a miserable bore, especially when the roads are congested. ... Our research clearly indicates that people like to travel by car. And they do so for many reasons that may have nothing to do with practical considerations like getting to work or gathering provisions. ... Some people find their commute time creates a much-needed transition, or buffer between their states of mind at work and home."
> Mokhtarian and Salomon, University of California Transportation Center, 1999

> "In a recent survey of lower-skilled workers in the Detroit area, researchers analyzed the job-search behavior of unemployed workers, finding large differences between the patterns of those who owned cars compared with those who did not. Those with cars searched for work over a wider area and range of neighborhoods. ... An analysis of program attrition was conducted by the Manpower Demonstration Research Corporation. The DMRC report concluded

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that auto ownership was an important prerequisite to participation in the program, to completion of the job-training and ultimately to getting jobs."

O'Regan and Quigley, University of California Transportation Center, 1998

"In 1980 the U.S. Department of Energy found that automobiles used an average of 4,782 BTU of energy per passenger per mile – 1.7 times more than buses and 1.6 times more than rail. But by 1993 the average auto consumed only 3,593 BTU per passenger mile. Compare this with buses, which used 4,374 BTU per passenger mile, and rail, at 3,687 BTU per passenger mile."

Sarmiento, University of California Transportation Center, 1996

"National debate is unfolding about transportation policy in the context of environment, life-style and economic growth. ... Neither political nor public will exists to support policies, regardless of their environmental benefits, that involve significant sacrifice or depart radically from the status quo."

Deen and Skinner, Transportation Research Board, 1994

BRT routes

There should be no BRT east of the Central Business District (Downtown). A bus-exclusive TSM system using hybrid buses that reduce noise and pollution could run on exclusive lanes on King and Beretania in the East-West direction and on University Avenue on the North-South direction including an exclusive bridge to Waikiki. Private circulators (we have several existing ones) between Waikiki and the Convention Center, Ala Moana, Aloha Tower, Iwilei and the airport should be encouraged. Incentives should also be given for the acquisition of quieter and cleaner emission vehicles by private companies.

Table 1.2-8 presents some important numbers. Although the urban core shows as having the largest demand for trips, most of them require extremely dense bus routes in order to be covered. The BRT will do little to serve these trips because of the large variety of purposes and destinations. BRT should focus on the leeward Oahu traffic which is expected to grow rapidly and already experiences a long and slow commute. If many of these trips to the urban core are removed, more local trips within the urban core can occur at reasonable levels of service.

According to this EIS, the BRT would cut travel time from the University of Hawaii at Manoa (UHM) to downtown by half. However, the demand for students and faculty that take this trip is low. Most of the faculty and staff reside in Manoa and East Honolulu and most of the students reside in Leeward and Windward Oahu. A BRT connection to UHM is not needed.

Transportation Impacts

It was difficult to evaluate the quality of the travel demand forecasts and ridership estimates contained in the EIS due to a lack of information on methodology procedures and background data. Chapter 4 did not adequately describe the modeling procedures, the data used, the validity and reliability of the data, the source of the data used for calibration, validation, and prediction. Information on trip generation, distribution, modal split, and network assignment is also lacking. Basic information such as trip tables, zone-to-zone analysis of population, employment, and trip-making behavior was not included. Integration of vehicle, transit, pedestrian, and bicycling data in the modeling process presents special methodological challenges which should be described more fully. The EIS should contain a more detailed discussion on the modeling procedures and provide basic data so that the forecasting procedure can be evaluated.

One example of where methodological would have been helpful include on page 4-10 where section 4.2.1 states that "The travel demand model used in this MIS/DEIS assumes demand spreading over a wide peak period so rescheduling is already accounted for." Is this a capacity-restrained spreading or was it done based on behavioral principles? Which ones? For instance, we know that flextime and similar plans have largely failed in Honolulu because although several employers allow flextime, school-children have fixed start times which, in-turn, defines a family's departure time, mode choice and route. How were real constraints such as this one accounted for?

Honolulu is quite unique in many respects including travel. For example, many people have multiple jobs, the majority of students are commuters and part-timers, there is no school bus service which, in turn, generates an unusually large number of drop-off/pick-up trips. Did the model account for all these facts? If so, how was a 61% increase in mass transit ridership from 1991 to 2025 forecast? How much did ridership of TheBus increase in the 6 months that gasoline price increased by 60%?

Delays due to construction have not been accounted for. There have been several studies on this subject, some of which estimated that several heavy-construction transportation projects created such congestion during construction that their delay-reduction benefits would not be able to balance construction delays for 10 to 30 years.

It is difficult to accept the LOS in Table 1.2-11 as credible. The results are likely and one can easily arrive at them by multiplying existing traffic levels with a beefy growth factor. However, the fact is that congestion is self-limiting: people find ways around it without changing travel mode from automobile to mass transit. Time and again, history has shown that new transit services typically cannibalize existing transit services and carpools and fail to attract family car pools and solo-riding motorists who consist the supermajority of commuters.

The estimated delay per vehicle for the year 2025, are questionable (Table 4.2-2). Vehicular delay will skyrocket on arterials from which 1 to 3 lanes were taken away if realistic assumptions in BRT ridership are used.
No build: = 12.3 minutes TSM = 11.6 minutes BRT = 12.1 minutes
The study must present the reader with current numbers (or numbers from the recent past) so that proper associations can be made using a base with which the reader is familiar with (and is reliable compared to forecasts). This applies to most of the estimates presented throughout the report.

Safety Issues

The study does not adequately describe transit safety issues regarding collisions with other motor vehicles and pedestrians. The primary focus of the study consisted of details such as seating and comfort level, but there was no discussion of safety issues for pedestrians, bicyclists, and other motorists. A traffic safety section should be adequately developed.

Energy Impacts

The EIS does not adequately describe energy impacts such as the cost of fuel and other uncertainties that could affect transportation in the urban core. While there is a comparison of energy consumption among the different alternatives, there should be more discussion of the

impacts of changing oil prices on each of the alternatives, and how that would affect relative ridership.

Environmental Justice

The section on Environmental Justice (as defined by Title VI) is inadequate. There should be a more complete discussion of the impacts of the project on minorities, low income households, persons with disabilities, and other groups. In addition to examining the increase in opportunities for disadvantaged groups, there should be a more detailed discussion of the extent to which environmental impacts - including pollution, noise, congestion, safety, and others - affect certain neighborhoods or population groups according to the alternatives considered. The report should summarize performance measures for each of the alternatives and their impacts on population subgroups.

Conclusion

Thank you for the opportunity to comment on this Major Investment Study/Draft Environmental Impact Statement.

Sincerely,

Peter Rappa
Environmental Review Coordinator

cc: Robert Bramen, Parsons Brinckerhoff Quade and Douglas, Inc.
OEQC
James Moncur, Water Resources Research Center
Karl Kim, Urban and Regional Planning
Panos Prevedouros, Civil Engineering

MAY 8 2002

UNIVERSITY OF HAWAI'I
ENVIRONMENTAL CENTER

May, 7, 2002
RE: 0724

Cheryl Soon
City and County of Honolulu
Department of Transportation Services
650 South King Street, 3rd Floor
Honolulu, HI. 96813

Dear Ms. Soon:

Supplemental Draft Environmental Impact Statement
Primary Corridor Transportation Project
Honolulu, Oahu

Since publication of the Primary Corridor Transportation Project, Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) (August 2000), and as a result of continuous public involvement and the working groups, the Bus Rapid Transit (BRT) Alternative has been refined. The Refined BRT Alternative analyzed in the Supplemental Draft Environmental Impact Statement (SDEIS) is the BRT Alternative discussed in the MIS/DEIS with the following major refinements: (1) Replacing the Kaonohi Street and Radford Drive ramps with a Luapele Drive ramp; (2) Adding a new In-Town BRT branch (Kaka'ako Makai Branch) running from the 'Iwilei Transit Center through downtown Honolulu, the Aloha Tower Marketplace, and Kaka'ako Makai en route to Waikiki; and (3) Rerouting a short section of the University of Hawai'i-Manoa (UH-Manoa) In-Town BRT alignment from Ward Avenue to Pensacola Street. In addition, a portion of the former Kaka'ako/Waikiki Branch (now being referred to as the Kaka'ako Mauka Branch) was rerouted from Richards Street to Bishop and Alakea Streets. Two new transit stops would be added to the Kaka'ako Mauka Branch. The Koko Head direction stop would be located on the 'Ewa side of Bishop Street between Queen Street and Ala Moana Boulevard; the 'Ewa bound transit stop would be located on the Koko Head side of Alakea Street, between Queen Street and Ala Moana Boulevard.

This review was conducted with the assistance of Karl Kim, PhD., Urban and Regional Planning; Panos Prevedouros, PhD., Civil Engineering; and Dave Sims, Environmental Center.

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AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION INSTITUTION

General Comments

Review of this document is complicated by it being a supplemental DEIS (SDEIS) augmenting numerous earlier studies and reviews, some of which are referenced in the SDEIS. However, there seem to be some omissions, perhaps because of a desire to be more succinct and to summarize what is undoubtedly a very complex, evolving project. Environmental analyses of much smaller projects clearly lay out the methodologies, models, and assumptions. This critical, billion-dollar investment study does not. As noted in §11-200-19, Hawai'i Administrative Rules (HAR):

> *Care shall be taken to concentrate on important issues and to ensure that the statement remains an essentially self-contained document, capable of being understood by the reader without the need for undue cross-reference.*

In its present form, the essential mode choice and mode switching models and assumptions are all absent. Thus, the public must take the forecast volumes, transit shares and impacts on faith. In addition, there is a need to up-date and to describe the latest developments in terms of vehicle technology and system design. The final EIS would be improved not just with more discussion of the BRT technology, but also with a more complete analysis of the benefits and costs of this project. To aid in the review, the SDEIS should systematically discuss methodologies, models and assumptions. Lacking comprehensive presentations of these elements, the SDEIS in its present form is fundamentally unacceptable.

BRT Technology

It is not clear, at present, what type of system will be adopted, either a hybrid electric bus system or perhaps some type of embedded plate technology. Indeed, at this stage one would expect much more detail as to the operating characteristics of the BRT vehicles. Given all of the developments in vehicle design and in BRT technology, there seem to be many unanswered questions regarding what the vehicles will look like, what their capacities will be, and what will be their environmental impacts (principally air and noise pollution). Without knowing more specifically what technologies will be employed and when and where they might be phased in, it seems not unreasonable to expect that the diesel bus will still dominate. Perhaps an assessment of BRT technologies and when we might expect to see more electric, hybrid, natural gas, fuel-cell, or even hydrogen powered vehicles in Honolulu might be appropriate. Indeed, an obvious comparison might be done between the costs of an embedded plate BRT system and either light rail or tramway systems which have been proliferating throughout many cities in the world.

The in-town BRT is heavily dependent on imported technology, and its quiet and non-polluting claims are dubious. The generation of electric power for the BRT (a very inefficient process of burning fuel to generate electricity and then transmit it with significant losses over power lines), as well as the greatly increased levels of traffic congestion, will more than outweigh the environmental benefits of the BRT vehicles. Furthermore, if the in-town BRT proves to be a failure, these vehicles will be useless. In contrast, the regional BRT vehicles are basically buses, which can be rerouted elsewhere if the regional BRT fails to attract riders.

Ridership

The SDEIS lacked sufficient detail to analyze the quality or reasonableness of the ridership forecasts. It was not clear from the document what method was used to forecast the ridership estimates, nor was it evident how the boardings and alightings were determined. The document should contain a brief description of the transit forecasting methodology as well as a discussion of the reliability and accuracy of the forecasts. The document should also contain more detail as to the origins and destinations of riders. Given advances in GIS and mapping technologies, it is surprising to see so little spatial analysis of the ridership patterns. Where will these riders come from? Where will they be going? What areas, neighborhoods, districts, and zones see improved service? Overall, given projected levels of growth and increases in the student population and also in the elderly population, two of the key transit-inclined population groups, the forecasts seem rather conservative.

Alignment and Routing Issues

Knowing more about both the vehicle design as well as concerns regarding power supply, traction, etc., would also be useful in examining and evaluating potential alignment alternatives. While the regional BRT seems more straightforward in terms of route selection, the in-town BRT is much more problematic, at least in terms of route selection. It seems that there are at least three different types of BRT operating at the same time: local service, express service, and then the opportunities for some type of urban transit mall, perhaps to service Waikiki or the 'Iwilei-Downtown corridor. The ridership estimates seem more oriented towards destinations rather than origins. Perhaps more effort might be made to identify the transit dependent populations (students, elderly, persons without access to private automobiles, etc.) and to map their residences (origins) or estimate their walk and travel times to reach a BRT station. Another obvious group for which BRT may be appealing may be tourist riders.

In terms of the BRT alignment, there are two areas that could use improvement: first, service between UH and Waikiki and second, service between the main Manoa campus and the planned Kaka'ako Health and Wellness (Biotech) complex. Also, it might also be useful to re-examine the connections between all of the university campuses from Kapiolani Community College, University of Hawai'i at Manoa, downtown campuses of Hawai'i Pacific University, Honolulu Community College, Leeward Community College and the proposed campus in Kapolei (University of Hawai'i at West Oahu). In actuality, only a small proportion of our students use the bus to commute to their campuses, and the majority of them are from the windward side and the north shore. BRT will not augment the service from those areas to the campus. Most of our students lead complex lives, taking courses on campus and at community colleges, working one or more part time jobs, participating in various off-campus activities, and rearing families. A fixed mass transit system as proposed in this SDEIS is woefully inadequate for their needs. Also, the supermajority of faculty and staff reside in places west of University Avenue and will realize no benefits from the BRT. From the standpoint of the University, there is little incentive inherent in the present design proposal to abandon private vehicles in favor of a public mass-

transit system, yet as noted above, the student population is potentially one of the most significant BRT ridership components.

Our reviewers suggest that the document's emphasis on the in-town part is unwarranted and unnecessary. The BRT might benefit long hauls from the Ewa plains to Kalihi and the city center. All emphasis should be placed on the regional BRT, and the TSM option should be adopted for the in-town portion. This will yield a transportation alternative that is more economical, more acceptable to the public, and more effective.

Transportation Impacts.

The SDEIS needs to describe more fully the transportation impacts of the proposed BRT. The document should contain a more complete discussion of the impacts to motorists, not only in terms of intersection LOS, but also in terms of roadway capacity, link volumes, vehicle speeds, and travel times. An associated concern involves traffic safety, not just in terms of vehicle-to-vehicle collisions, but also the risks of accident involvement for bicyclists, pedestrians, and BRT users. The crucial section on transportation impacts does not adequately demonstrate how the BRT provides an attractive alternative to the private automobile, nor does it provide sufficient detail as to how the proposed system supports desired development patterns, particularly in terms of increasing the attractiveness of in-town living. The SDEIS does a poor job of describing which residents, commuters, and transit users will experience enhanced mobility, reduced travel times and improved quality of life.

Land Use Interactions.

The SDEIS should describe more fully the changes in land use that are expected to occur over time as a result of the BRT investment. In addition to intensification of use around stations and support of new development within the urban core, it can be anticipated that certain areas might experience changes in land use. Opportunities for more in-town residential development, as well as other types of growth, might be supported by enhanced transit services.

Financing and Cost Recovery.

Given that certain landowners and businesses are likely to benefit more from the BRT, it makes economic sense to consider various value re-capture techniques for financing this project. In particular, the benefits to Kapolei, as well as to businesses and property owners abutting the in-town BRT should be noted. Surprisingly, strategies such as tax-increment financing, special district or improvement district fees, were not evaluated as part of the financing strategy. Opportunities to leverage financing from key ridership groups such as University students and employees (U-pass program) could also boost fare box recovery. More discussion of the fare box revenues is needed, including the rationale behind the 33% recovery policy. An alternative approach is to allow fares to rise while subsidizing needy groups. Perhaps other types of taxes or tolls to finance BRT would be appropriate.

Concluding Thoughts

Historically, implementation cost estimates and traffic forecasts for large transportation infrastructure projects, like the proposed Bus Rapid Transit for Honolulu, have been wrong. Consider these data: The U.S. DOT analyzed ten rail transit projects implemented in the 1980's and valued at more than $16 billion in 1990 prices. Cost overruns ranged from -10% to +106% with an average of 61%. A1995 Danish study that analyzed costs from several transportation infrastructure projects worldwide concluded that cost overruns in the +50% to +100% range are common, and overruns in excess of 100% do occur.

Transit ridership forecasts also tend to be overly optimistic. The U.S. DOT found that actual ridership was 28% to 85% lower than forecast ridership. On average, actual ridership was 65% lower than the forecast ridership.

Careful planning and thoughtful analyses are needed to avoid the mistakes of the past. At the same time, fundamental determinants of transportation dynamics, such as energy costs, work patterns, and population demographics and distribution are subject to change, often in unexpected and rapid ways. Lacking prescience, our best alternative is to envision a preferred future, and invest in ways that facilitate rather than preclude innovation.

The SDEIS contains a tremendous amount of information, much of it well organized and clearly written. However, it also falls seriously short of the comprehensive planning document needed to inspire the vision of a preferred future for transportation on Oahu.

With each iteration, the Primary Corridor Transportation Project improves. We suggest that the present document requires further revision, addressing in particular the topics discussed in our review.

Sincerely,

John T. Harrison, Ph.D.
Environmental Coordinator

c: OEQC
Ms. Donna Turchie, U.S. DOT, Region IX
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Karl Kim
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AR00015411

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November 13, 2002

TPD5/02-01840R
TPD5/02-01875R

Mr. John T. Harrison
Environmental Coordinator
University of Hawaii
Environmental Center
2500 Dole Street
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Honolulu, Hawaii 96822

Dear Dr. Harrison:

Subject: Primary Corridor Transportation Project

This is a combined response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). Your comments on the SDEIS were received on May 7, 2002, which was within the comment period. Your comments on the MIS/DEIS while dated November 3, 2000 letter were not received until May 8, 2002. We are responding in two parts. Part A responds to your SDEIS comments and Part B responds to your MIS/DEIS comments.

Part A – SDEIS Comments

1. *Review of this document is complicated by it being a supplemental DEIS (SDEIS) augmenting numerous earlier studies and reviews, some of which are referenced in the SDEIS. However, there seem to be some omissions, perhaps because of a desire to be more succinct and to summarize what is undoubtedly a very complex, evolving project. Environmental analyses of much smaller projects clearly lay out the methodologies, models, and assumptions. This critical, billion-dollar investment study does not. As noted in §11-200-19, Hawaii Administrative Rules (HAR):*

   > *Care shall be taken to concentrate on important issues and to ensure that the statement remains an essentially self-contained document, capable of being understood by the reader without the need for undue cross-reference.*

   Response: Please note that the comment reflects only part of §11-200-19 Hawaii Administrative Rules. The full section states: "Environmental impact statement style. In developing the EIS, preparers shall make every effort to convey the required information succinctly in a form easily understood, both by members of the public and by public decision-makers, giving attention to the substance of the information conveyed rather than to the particular form, or length, or detail of the statement. The scope of the statement may vary with the scope of the proposed action and its impact. Data and analyses in a statement shall be commensurate with the importance of the impact, and less important material may be summarized, consolidated, or simply referenced. Statements shall indicate at appropriate points in the text any underlying studies, reports, and

other information obtained and considered in preparing the statement, including cost benefit analyses and reports required under other legal authorities. Care shall be taken to concentrate on important issues and to ensure that the statement remains an essentially self-contained document, capable of being understood by the reader without the need for undue cross-reference. [Eff 12/6/85; am and comp AUG 31 1996] (Auth: HRS §343-5, 343-6) (Imp: HRS §343-6)"

The DEIS, SDEIS, and FEIS conform to §11-200-19 and present information succinctly and easily understood by the public and decision makers.

2. *In its present form, the essential mode choice and mode switching models and assumptions are all absent. Thus, the public must take the forecast volumes, transit shares and impacts on faith.*

   Response: The SDEIS states that the travel demand forecasting procedures maintained by the OMPO were used for the project (page 4-4). The OMPO procedures/models are used for all regionally significant travel demand forecasting by the State and City. Dr. C.S. Papacostas, Civil Engineering Department, University of Hawaii, was the technical director for the OMPO model development. As a result of your comment, the FEIS Chapter 4 contains a travel demand forecasting procedures summary.

3. *In addition, there is a need to update and to describe the latest developments in terms of vehicle technology and system design.*

   Response: The SDEIS describes the vehicle service and performance standards in sufficient detail beginning on Page 2-19. Vehicle technology options and the final selection process are also disclosed in Page 2-23 through 2-25. The vehicle technology and system design information has been further updated in the FEIS, Chapter 2.

4. *The final EIS would be improved not just with more discussion of the BRT technology, but also with a more complete analysis of the benefits and costs of this project.*

   Response: The DEIS, SDEIS, and FEIS, Chapters 2 discuss the BRT technologies succinctly and in a manner easily understood by the public and decision makers. The DEIS, SDEIS, and FEIS include complete project costs and the benefits and impacts associated with the project.

5. *To aid in the review, the SDEIS should systematically discuss methodologies, models and assumptions. Lacking comprehensive presentations of these elements, the SDEIS in its present form is fundamentally unacceptable.*

   Response: The methodologies, models, and assumptions have been adequately presented. The FEIS, Chapter 4 includes a summary of the travel demand methodology. .

6. *It is not clear, at present, what type of system will be adopted, either a hybrid electric bus system or perhaps some type of embedded plate technology.*

   Response: Since embedded plate technology (EPT) is not yet service proven, hybrid-electric buses will be deployed as an interim technology. As stated in the FEIS, Chapter 2, a decision will be made on the long-term technology in 2008.

7. *Indeed, at this stage one would expect much more detail as to the operating characteristics of the BRT vehicles.*

Response: The FEIS, Chapter 2 discusses the BRT vehicle operating characteristics.

8. *Given all of the developments in vehicle design and in BRT technology, there seem to be many unanswered questions regarding what the vehicles will look like, what their capacities will be, and what will be their environmental impacts (principally air and noise pollution).*

Response: Vehicle looks will be established during the vehicle procurement process under City purchasing regulations. Capacity as discussed in Chapter 2 will be 120 persons per vehicle. The environmental impacts, including those on air quality and noise, from the use of hybrid-electric or EPT technology for the In-Town BRT are discussed in Chapter 5 of the FEIS.

9. *Without knowing more specifically what technologies will be employed and when and where they might be phased in, it seems not unreasonable to expect that the diesel bus will still dominate.*

Response: As discussed in Chapter 2, Section 2.5 of the FEIS, hybrid-electric buses will be used initially. The decision whether to convert to EPT will not be addressed until 2008, when it is expected to be service proven.

10. *Perhaps an assessment of BRT technologies and when we might expect to see more electric, hybrid, natural gas, fuel-cell, or even hydrogen powered vehicles in Honolulu might be appropriate.*

Response: As discussed in Chapter 2, Section 2.5 of the FEIS, hybrid-electric buses will be used initially, with a decision whether to convert to EPT made in 2008.

11. *Indeed, an obvious comparison might be done between the costs of an embedded plate BRT system and either light rail or tramway systems which have been proliferating throughout many cities in the world.*

Response: Alternatives considered and rejected are discussed in Chapter 2, Section 2.6 of the FEIS. Primary reasons for rejecting LRT are that its costs were 35% higher than for a comparable BRT system, yet BRT can provide comparable service with greater flexibility. Both technologies were based on using embedded plate propulsion since overhead contact wires that provide the traction power for light rail vehicles were determined to be unacceptable locally.

12. *The In-Town BRT is heavily dependent on imported technology, and its quiet and non-polluting claims are dubious. The generation of electric power for the BRT (a very inefficient process of burning fuel to generate electricity and then transmit it with significant losses over power lines), as well as the greatly increased levels of traffic congestion, will more than outweigh the environmental benefits of the BRT vehicles.*

Response: Electric propulsion technologies are much quieter than diesel technologies because electric motors are quieter than internal combustion processes. Even hybrid-diesel technologies are quieter than conventional diesel because the performance of the diesel engine is optimized for air and noise emissions and power generation. With diesel-hybrid technologies, the speed of the diesel engine is unlinked from the speed of the vehicle, and the acceleration noise emissions of a conventional diesel engine are eliminated.

Electric power on Oahu comes from a variety of sources, but at present, most of the power is generated through combustion, including the combustion of municipal solid waste. Electric transit technologies transfer air emissions from the tailpipe of vehicles, at street level, to the stack of the

central generating facility. This results in improved air quality in dense urban areas, enhancing the quality of life, and allows for the air pollutants to be controlled more effectively at the central generation facility, away from human exposure.

As more of Oahu's power is generated from renewable resources, the deployment of electric transit technologies will help displace imported oil.

As transit becomes more attractive by being buffered from increasing levels of traffic congestion, some travelers will shift from single-occupant vehicles to transit vehicles. This decrease in the use of private vehicles will save energy.

13. *Furthermore, if the In-Town BRT proves to be a failure, these vehicles will be useless. In contrast, the regional BRT vehicles are basically buses, which can be rerouted elsewhere if the regional BRT fails to attract riders.*

Response: EPT will only be implemented if and when it is service proven. Hybrid-electric buses will be deployed in the interim while embedded plate technology is revenue tested in other cities. The BRT technologies are discussed in the FEIS, Chapter 2.

14. *The SDEIS lacked sufficient detail to analyze the quality or reasonableness of the ridership forecasts.*

Response: The SDEIS states, "The information presented in this section, as well as all of the evaluation based on travel forecasts presented in later sections, has been derived from the travel demand forecasting procedures maintained by the OMPO, the regional planning organization for the island." (page 4-4). Dr. C. S. Papacostas, Civil Engineering, UHM was a technical director for the development of the forecasting procedures for OMPO, and the process is well documented by the OMPO consultant. The OMPO forecasting procedures are the only long-range regional forecasting procedures for Oahu that have been agreed upon and approved for use by the Federal, State and City agencies.

15. *It was not clear from the document what method was used to forecast the ridership estimates, nor was it evident how the boardings and alightings were determined.*

Response: See responses to comments #2 and #14 above.

16. *The document should contain a brief description of the transit forecasting methodology as well as a discussion of the reliability and accuracy of the forecasts.*

Response: The reliability and accuracy of the OMPO forecasting procedures are discussed in the OMPO documents. The procedures have been tested and calibrated during their development. See responses to comments #2 and #14.

17. *The document should also contain more detail as to the origins and destinations of riders.*

Response: The FEIS, Chapter 4 includes the origin and destination matrix of transit users. The matrix shows the transit trip exchanges between the standard 23 geographical districts on Oahu that are used by the State and City planning agencies.

18. *Given advances in GIS and mapping technologies, it is surprising to see so little spatial analysis of the ridership patterns. Where will these riders come from? Where will they be going? What areas, neighborhoods, districts, and zones see improved service?*

    Response: See response to comment #17. A trip matrix using the 23 geographical districts is included in the FEIS, Chapter 4.

19. *Overall, given projected levels of growth and increases in the student population and also in the elderly population, two of the key transit-inclined population groups, the forecasts seem rather conservative.*

    Response: The projected growth level used includes students and the elderly.

20. *Knowing more about both the vehicle design as well as concerns regarding power supply, traction, etc., would also be useful in examining and evaluating potential alignment alternatives. While the regional BRT seems more straightforward in terms of route selection, the In-Town BRT is much more problematic, at least in terms of route selection. It seems that there are at least three different types of BRT operating at the same time: local service, express service, and then the opportunities for some type of urban transit mall, perhaps to service Waikiki or the "Iwilei-Downtown corridor."*

    Response: All route types are described in the FEIS, Chapter 2 for the BRT and in Chapters 3 and 4 for existing services.

21. *The ridership estimates seem more oriented towards destinations rather than origins. Perhaps more effort might be made to identify the transit dependent populations (students, elderly, persons without access to private automobiles, etc.) and to map their residences (origins) or estimate their walk and travel times to reach a BRT station. Another obvious group for which BRT may be appealing may be tourist riders.*

    Response: The Refined LPA includes a hub-and-spoke bus network that is integrally linked to BRT stations and transit centers. This system will provide comprehensive coverage throughout Oahu. In developing the island-wide network full consideration was given to conveniently serving transit dependent populations.

    Connections between UH and Waikiki and between UH and the planned medical school will be by regular bus routes.

    UH-Manoa, HCC, and HPU will be directly connected by the In-Town BRT. These and other campuses in the UH system will be connected via the hub-and spoke network.

    According to place of residence data provided by UH for the current enrollment, 55 percent of the UH-Manoa students live in Honolulu, 32 percent come from Leeward, and 13 percent come from Windward. Eighty-seven percent of the students (from Honolulu and Leeward) could potentially benefit from the Regional and In-Town BRT because these are the areas directly served by BRT routes. See comment #10 for the year 2025 transit use to the UH.

    The Associated Students of the University of Hawaii at Manoa passed a resolution supporting the BRT project stating therein that "many students rely on TheBus system provided by the City and

County of Honolulu as their means of transportation to and from the University, work, and social events". Over 1,000 bus passes are sold from the UH-Manoa campus center monthly. Many other UH students purchase passes elsewhere or pay the single ride fare.

22. *In terms of the BRT alignment, there are two areas that could use improvement: first, service between UH and Waikiki and second, service between the main Manoa campus and the planned Kakaako Health and Wellness (Biotech) complex.*

    Response: See response to comment #21. Direct transit service between Manoa and the Kakaako Health and Wellness complex and/or Waikiki will be considered as the University's plans progress. There may be an opportunity for private operators to provide this transit service.

23. *Also, it might also be useful to re-examine the connections between all of the university campuses from Kapiolani Community College, University of Hawaii at Manoa, downtown campuses of Hawaii Pacific University, Honolulu Community College, Leeward Community College and the proposed campus in Kapolei (University of Hawaii at West Oahu).*

    Response: The project analysis has considered the trips between the university campuses. The hub-and-spoke planning for the primary urban center is now underway. The UH has only recently selected the West Oahu Campus location; whereas, the Leeward hub-and-spoke system has already been implemented. The DTS will adjust individual hub-and-spoke routes at the time that the West Oahu Campus is operational.

24. *In actuality, only a small proportion of our students use the bus to commute to their campuses, and the majority of them are from the windward side and the north shore. BRT will not augment the service from those areas to the campus.*

    Response: See response to comment #21. This statement is contrary to our actual ridership numbers. CityExpress! Route A, which terminates at Sinclair Circle, has a 12,300 average weekday ridership. We see distinct ridership changes when school is in session than when it is not.

25. *Most of our students lead complex lives, taking courses on campus and at community colleges, working one or more part time jobs, participating in various off-campus activities, and rearing families. A fixed mass transit system as proposed in this SDEIS is woefully inadequate for their needs.*

    Response: We do not concur. The all day service to/from UH provides a great degree of schedule flexibility. Route A connects to all other express and local bus routes.

26. *Also, the supermajority of faculty and staff reside in pieces west of University Avenue and will realize no benefits from the BRT. From the standpoint of the University, there is little incentive inherent in the present design proposal to abandon private vehicles in favor of a public mass-transit system, yet as noted above, the student population is potentially one of the most significant BRT ridership components.*

    Response: The University is developing a very forward thinking Charter of Sustainability, which includes transportation. . The University has the opportunity to readdress its parking programs and to participate in the City's BONUS program as two steps toward greater campus sustainability in transportation.

27. *Our reviewers suggest that the document's emphasis on the in-town part is unwarranted and unnecessary. The BRT might benefit long hauls from the Ewa plains to Kalihi and the city center. All emphasis should be placed on the regional BRT, and the TSM option should be adopted for the in-town portion. This will yield a transportation alternative that is more economical, more acceptable to the public, and more effective.*

    Response: This statement is internally inconsistent with other statements. The fundamental difference between the BRT and TSM Alternatives is whether the transit operation is provided with exclusive and/or semi-exclusive right-of-ways. The TSM Alternative, by definition, is to optimize transit service without significant capital investments. To provide an improved level of service and performance beyond the TSM, exclusive and/or semi-exclusive right-of-ways for transit become necessary for both the Regional and In-Town elements. Since the most significant share of the transit ridership is within the In-Town corridor, the higher capacity and more frequent service levels are needed in-town.

28. *The SDEIS needs to describe more fully the transportation impacts of the proposed BRT. The document should contain a more complete discussion of the impacts to motorists, not only terms of intersection LOS, but also in terms of roadway capacity, link volumes, vehicle speeds, and travel times.*

    Response: Comparisons of roadway capacity and peak hour volumes are included on Tables 4.2-3 and 4.2-4 of the SDEIS. The intersection LOS analysis, based on the level of traffic delay, is the most commonly recognized and recommended method to indicate the operational characteristics of the traffic in an urbanized area. The average delay times for motorists has been added to Chapter 4 in the FEIS to further enhance the traffic impact descriptions.

29. *An associated concern involves traffic safety, not just in terms of vehicle-to-vehicle collisions, but also the risks of accident involvement for bicyclists, pedestrians, and BRT users.*

    Response: Safety of BRT passengers traveling to-and-from BRT stops when located in the street median were discussed in the DEIS and SDEIS. Safety for bicyclists and pedestrians, as well as BRT passengers is discussed in Chapters 4 and 5 of the FEIS.

30. *The crucial section on transportation impacts does not adequately demonstrate how the BRT provides an attractive alternative to the private automobile, nor does it provide sufficient detail as to how the proposed system supports desired development patterns, particularly in terms of increasing the attractiveness of in-town living.*

    Response: FEIS Table 4. 2-7 shows the Level of Service for autos and for transit at various intersections in the PUC. What this reflects is the comparative ease with which the BRT vehicles will be able to circulate in the congested urban core compared to autos.

    Ease of mobility by walking and transit (see transit/auto LOS table 4.2-7), with reduced air and noise pollution (see section 5.5.2 and 5.6.4) are all ways in which the BRT will help contribute towards making in-town living more attractive. These are part of a sustainable agenda.

31. *The SDEIS does a poor job of describing which residents, commuters, and transit users will experience enhanced mobility, reduced travel times and improved quality of life.*

    Response: These topics are covered in Chapter 4 of the DEIS, SDEIS, and FEIS.

32. *The SDEIS should describe more fully the changes in land use that are expected to occur over time as a result of the BRT investment. In addition to intensification of use around stations and support of new development within the urban core, it can be anticipated that certain areas might experience changes in land use. Opportunities for more in-town residential development, as well as other types of growth, might be supported by enhanced transit services.*

    Response: Chapter 5 of the FEIS includes a complete land use development impact section. The FEIS analysis shows which areas will likely experience some land use changes as a result of the BRT investment.

33. *Given that certain landowners and businesses are likely to benefit more from the BRT, it makes economic sense to consider various value re-capture techniques for financing this project. In particular, the benefits to Kapolei, as well as to businesses and property owners abutting the In-Town BRT should be noted.*

    Response: At the outset of the PCTP the City Council directed staff to look at G.O. Bonds as the method of providing local matching funds for the project.

34. *Surprisingly, strategies, such as tax-increment financing, special district or improvement district fees, were not evaluated as part of the financing strategy.*

    Response: The FEIS, Chapter 6 presents the financial analysis. In 1999, prior to the development of the DEIS, the City Council passed Resolution No. 99-338 which stated, in part, that "Be it further resolved the Council strongly supports a preliminary financial approach to include phased use of federal transportation funds, local highway funds and City general obligation bonds to provide the necessary funding..." The Council's intentions are incorporated in the assumptions of DEIS, SDEIS, and FEIS financial analyses.

    Prior to the DEIS, there was conceptual discussion and analysis on the potential for such strategies as partial privatization and value-capture along key corridors and transit centers. The analysis showed that the amount of funds that could be raised by these means would not be of sufficient magnitude to offset the capital costs, nor could the timing be controlled sufficiently to coincide with project costs. More importantly, FTA does not regard such sources as constituting guaranteed and committed local funding.

35. *Opportunities to leverage financing from key ridership groups such as University students and employees (U-pass program) could also boost fare box recovery. More discussion of the fare box revenues is needed, including the rationale behind the 33% recovery policy. An alternative approach is to allow fares to rise while subsidizing needy groups. Perhaps other types of taxes or tolls to finance BRT would be appropriate.*

    Response: The City Council adopted Resolution 00-29, CD-1, that states in part, that the fare recovery ratio will not fall below 27 percent nor exceed 33 percent. City Council sets the policy regarding financing.

36. *Historically, implementation cost estimates and traffic forecasts for large transportation infrastructure projects, like the proposed Bus Rapid Transit for Honolulu, have been wrong. Consider these data: The U.S. Dot analyzed ten rail projects implemented in the 1980's and valued at more than $16 billion in 1990 prices. Cost overruns ranged from –10% to +106% with*

an average of 61%. A 1995 Danish study that analyzed costs from several transportation infrastructure projects worldwide concluded that cost overruns in the +50% to +100% range are common, and overruns in excess of 100% do occur.

Response: The studies referred to are outdated. Data from more recent transit projects documented in the 1999 GAO Report "Status of New Starts Transit Projects with Full Funding Grant Agreements" indicate that cost containment efforts by FTA and local agencies have been effective in keeping projects within their cost budgets. Also, GAO Report Number 01-984 examines BRT as an emerging and innovative approach to transportation. The report concludes that "BRT systems can have lower capital costs than light rail systems, yet can often provide similar performance."

FTA scrutiny of travel demand forecasting procedures and advancements in the state of the art, before and after comparisons of ridership for more recent projects such as those in Salt Lake City, St. Louis, Portland, Dallas, Boston and other cities have shown that ridership forecasts on these projects have been close to or have even slightly underestimated the ridership actually achieved.

37. *Transit ridership forecasts also tend to be overly optimistic. The U.S. DOT found that actual ridership was 28% to 85% lower than forecast ridership. On average, actual ridership was 65% lower than the forecast ridership.*

Response: See response to comment #36.

38. *Careful planning and thoughtful analyses are needed to avoid the mistakes of the past. At the same time, fundamental determinants of transportation dynamics, such as energy costs, work patterns, and population demographics and distribution are subject to change, often in unexpected and rapid ways. Lacking prescience, our best alternative is to envision a preferred future, and invest in ways that facilitate rather than preclude innovation.*

Response: The analyses methods incorporate official procedures and data and accepted practices for transportation projects.

39. *The SDEIS contains a tremendous amount of information, much of it well organized and clearly written. However, it also falls seriously short of the comprehensive planning document needed to inspire the vision of a preferred future for transportation on Oahu.*

Response: The OMPO TOP 2025 is the comprehensive transportation planning document. What we have presented is a significant enhancement to the public transportation mode. The SDEIS and FEIS present the Primary Corridor Transportation Project and associated alternatives analyzed, costs, plus social, economic, and environmental benefits and impacts.

Part B – MIS/DEIS Comments

40. *Our reviewers felt that there was insufficient consideration of alternatives. Specifically, additional alternatives were not adequately sought-out, initial alternatives such as the light rapid-transit alternative were eliminated prematurely, and additional alignments and siting for automated, grade-separated people-mover systems could have been further studied.*

Response: Substantial effort on the part of the public and stakeholders was spent in developing and analyzing a wide array of alternatives. The MIS/DEIS and FEIS, Chapter 2 summarize all the alternatives that were considered. The analyses were done in iterative fashion so that the majority

of the analyses could be spent on viable alternatives, rather than continuing to analyze alternatives that did not satisfy the project's purpose and need. Once it became clear from the analyses that an alternative was fatally flawed and with public input and City Council concurrence it was dropped from further consideration.

41. *In addition to the No build, Transportation System Management (TSM), and Bus Rapid Transit (BRT) alternatives, the City should have included a rail alternative. The logic and justification for excluding the fixed rail option is not adequately described. It is not clear why a grade-separated, automated system – using technology similar to Vancouver's system or various Airport People Movers – was not included for analysis. Based on the information furnished in Section 2.6.2 (Alternatives Considered and Eliminated), it appears that there are distinct advantages of grade seperation and automation. The problems seem less to do with the technology, per se, than with routing, siting, visual obstructions, and other factors.*

Response: A totally grade separated transit system does have distinct advantages; however, a totally grade seperated system was rejected in 1992 due to financing. The early public outreach process for the PCTP reaffirmed the public's and policy makers' unwillingness to increase taxes to upgrade the public transportation system and alternatives were developed accordingly. (See City Council Resolution Number 99-338.)

The Refined LPA achieves many of the benefits of a totally grade seperated system at a substantially less cost and with fewer environmental impacts. The Regional BRT is a grade-separated system. It utilizes the grade separated H-1 freeway rather than creating a totally new viaduct. In so doing it not only saves capital costs, but avoids displacements needed for new right-of-way, and has the added advantage of allowing the rubber tired buses that use the zipper lanes to collect and distribute passengers off of the freeway as well.

42. *Automation, moreover, offers clear advantages in terms of controlling labor costs and providing more flexible, more demand responsive service. To eliminate this technology simply because it failed to garner the necessary support in the past – seems to be a somewhat hasty decision. There was a tremendous amount of information and knowledge gained during the past efforts to implement such a system. That experience could be easily included, updated, and presented in this document. Moreover, the concern on the past was related to cost and visual obstruction. A more detailed analyses of total costs, including the difference in operating costs for an automated, grade-separated system and the proposed BRT alternative would provide instructive.*

Response: There can indeed be operating cost savings with an automated, grade-separated transit system, but not necessarily. Also, to say that an automated, grade-separated system is more flexible and demand responsive than an at grade bus system is incorrect. A surface bus system has the flexibility of deploying buses anywhere along the system wide network to meet variable demand. An automated, grade-separated system cannot deviate from its fixed alignment.

The automated, grade-separated transit system was presented to the public and stakeholders at the beginning of the PCTP project. The public and stakeholders rejected this type of system based on costs, visual impacts, and displacements.

43. *In any case, the Environmental Impact Statement (EIS) is required to "describe in a separate and distinct section alternatives which could attain the objectives of action, regardless of cost, in sufficient detail to explain why they were rejected" (Hawaii Administrative Rules 11-200-17(f)).*

Response: The Hawaii Administrative Rules 11-200-17(f) state: "The draft EIS shall describe in a separate and distinct section alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks.

Examples of alternatives include:

(1) The alternative of no action;

(2) Alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts;

(3) Alternatives related to different designs or details of the proposed actions which would present different environmental impacts;

(4) The alternative of postponing action pending further study; and,

(5) Alternative locations for the proposed project.

In each case, the analysis shall be sufficiently detailed to allow the comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative. For any agency actions, the discussion of alternatives shall include, where relevant, those alternatives not within the existing authority of the agency."

As discussed in the DEIS, SDEIS, and FEIS Chapters 2, three alternatives were evaluated: the No-Build, Transportation System Management, and Bus Rapid Transit. Chapter 2 also includes a section regarding those alternatives that were considered but eliminated because they did not fulfill the project's purpose and need.

44. *The MIS/DEIS failed to realize the positive aspects of automobile-based transport and should have explored such dimensions. For this reason alone, a major mass transit system expansion will fail to product sufficient benefits in the absence of a major economic or fuel crisis. A sample of some research on the efficiency, effectiveness, and desireability of automobile-based transport is offered below.*

Response: The MIS/DEIS, SDEIS, and FEIS rely upon travel demand forecasting models that are based on extensive surveys of actual travel behavior by Honolulu residents and visitors. These models use the documented behavior to forecast future travel demand and mode usage through simulation of the relative travel times and costs for various types of trips. The reasons people use autos or transit are fully accounted for in the forecasting process. That is why such a high percentage of auto use is shown to continue in the future with any form of transit.

(a.) "The stereotypes suggest that for most commuters the trek by cars to work is a miserable bore, especially when the roads are congested... Our research clearly indicates that people like to travel by car. And they do so for many reasons that may have nothing to do with practical considerations like getting to work or gathering provisions... Some people find their commute time creates a much-needed transition, or buffer between their states of mind at work and home." (Mokhterian and Salomon, University of California Transportation Center, 1999.)

Response: We agree that some people like to travel by car. The Refined LPA will provide a transportation alternative to the automobile, not replace it.

(b.) "In a recent survey of lower-skilled workers in the Detroit area, researchers analyzed the job-search behavior of unemployed workers, finding large differences between the patterns of those who owned cars compared with those who did not. Those with cars searched for work over a wider area and range of neighborhoods... An analysis of program attrition was conducted by the Manpower Demonstration Research Corporation. The DMRC report concluded that auto ownership was an important prerequisite to participation in the program, to completion of the job-training and ultimately to getting jobs." (O'Regan and Quigley, University of California Transportation Center, 1998)

Response: Car ownership is one of the key factors included in the travel demand forecasting procedures.

(c.) "In 1980 the U.S. Department of Energy found that automobiles used an average of 4,782 BTU of energy per passenger per mile – 1.7 times more than buses and 1.6 times more than rail. But by 1993 the average auto consumed only 3,593 BTU per passenger mile. Compare this with buses, which used 4,374 BTU per passenger mile, and rail, at 3,687 BTU per passenger mile." (Sarmiento, University of California Transportation Center, 1996)

Response: We agree that automobiles are becoming more energy efficient as a result of federal mandates. In reviewing the Transportation Energy Data Book: Edition 21, October 2001,Table 2.10 presents the passenger travel and energy use in the United States for 1999. Although the Btu per passenger-mile for automobiles was 3,635 in 1999, automobiles used 9,126.1 trillion Btu. Personal trucks had a 4,511 Btu per passenger-mile and used 4,701.7 trillion Btu in 1999. Transit buses had a 4,802 Btu per passenger-mile in 1999 and accounted for 97.7 trillion Btu and rail (intercity, transit, and commuter) had a Btu per passenger-mile ranging from 2,932 to 3,063 and accounted for 86.6 trillion Btu in 1999.

(d.)"National debate is unfolding about transportation policy in the context of environment, life-style and economic growth... Neither political nor public will exists to support policies, regardless of their environmental benefits, that involve significant sacrifice or depart radically from the status quo." (Deen and Skinner, Transportation Research Board, 1994)

Response: We do not know the intent of the above quote; however, the Honolulu City Council supports the proposed project. On December 1, 1999, the full City Council adopted Resolution Number 99-336, strongly supporting the concepts of a high capacity frequent service transit system. On November 29, 2000 the City Council passed Resolution Number 00-249 selecting the BRT as the locally preferred alternative (LPA). On August 1, 2001, the City Council passed Resolution Number 01-208 amending the BRT LPA to include the Kakaako Makai alignment. In June 2002, the City Council passed Bill 20 which is the FY 2003 Capital Improvement Budget and it included $31 million for the In-Town BRT section between Iwilei and Waikiki. Also in June 2002, Bill 34 was passed which amended the Primary Urban Center Public Facilities Map to include the In-Town BRT Section between Iwilei and Waikiki.

45. *There should be no BRT east of the Central Business District (Downtown). A bus-exclusive TSM system using hybrid buses that reduce noise and pollution could run on exclusive lanes on King and Beretania in the East-West direction and on University Avenue on the North-South direction*

including an exclusive bridge to Waikiki. Private circulators (we have several existing ones) between Waikiki and the Convention Center, Ala Moana, Aloha Tower, Iwilei and the airport should be encouraged.

Response: What is referred to as the TSM is similar to the In-Town BRT. The principal difference is that the In-Town BRT will operate on King and Kapiolani not King and Beretania to serve more trip generators. Private circulators will still be operating between Waikiki and the Convention Center, Ala Moana, Aloha Tower, Iwilei and the airport. A new bridge crossing the Ala Wai Canal to Waikiki has been proposed many times in the past and rejected by the community.

46. *Incentives should also be given for the acquisition of quieter and cleaner emission vehicles by private companies.*

Response: The federal government does offer tax incentives for cleaner, more fuel efficient vehicles.

47. *Table 1.2-8 presents some important numbers. Although the urban core shows as having the largest demand for trips, most of them require extremely dense bus routes in order to be covered. The BRT will do little to serve these trips because of the large variety of purposes and destinations. BRT should focus on the leeward Oahu traffic which is expected to grow rapidly and already experiences a long and slow commute. If many of these trips to the urban core are removed, more local trips within the urban core can occur at reasonable levels of service.*

Response: Three In-Town BRT branches (UH-Manoa, Kakaako Makai, and Kakaako Mauka) are proposed to provide coverage in the urban core. In addition, the BRT system includes major regional components that serve travel demands from the Ewa plain, the Leeward Coast, and the Central Oahu areas. These regional BRT components interface directly with the In-Town BRT, encouraging the use of transit, not only for commuting, but also for travel throughout the day, within the urban core.

48. *According to this EIS, the BRT would cut travel time form the University of Hawaii at Manoa (UHM) to downtown by half. However, the demand for students and faculty that take this trip is low. Most of the faculty and staff reside in Manoa and East Honolulu and most of the students reside in Leeward and Windward Oahu. A BRT connection to UHM is not needed.*

Response: BRT service to UH-Manoa is needed because an analysis of the year 2025 Refined LPA home-based college transit trip table indicates that approximately 45 percent of travel related to UH-Manoa is attributed to Leeward and Central areas west of Kalihi. Another 14 percent of UH-Manoa transit trips are connected to an area bounded by Kakaako and Kalihi. Elements of Makiki and McCully would also benefit from the BRT and they comprise approximately nine percent of the UH-Manoa transit trips. Together, these transit trips constitute 68 percent of the UH-Manoa transit trips.

49. *It was difficult to evaluate the quality of the travel demand forecasts and ridership estimates contained in the EIS due to a lack of information on methodology procedures and background data. Chapter 4 did not adequately describe the modeling procedures, the data used, the validity and reliability of the data the source of the data used for calibration, validation, and prediction. Information on trip generation, distribution, model split, and network assignment is also lacking. Basic information such as trip tables, zone-to-zone analysis of population, employment, and trip-making behavior was not included. Integration of vehicle, transit, pedestrian, and bicycling data in*

the modeling process presents special methodological challenges which should be described more fully. The EIS should contain a more detailed discussion on the modeling procedures and provide basic data so that the forecasting procedure can be evaluated.

Response: The FEIS Chapter 4 includes a description of the travel demand model used for the Primary Corridor Transportation Project analyses. This description provides an overview of the travel demand model. Since the OMPO Regional Travel Demand Model is being used, the FEIS refers interested readers to OMPO for a more detailed description of the model.

50. *One example of where methodological would have been helpful include on page 4-10 where section 4.2.1 states that "The travel demand model used in this MIS/DEIS assumes demand spreading over a wide peak period so rescheduling is already accounted for." Is this a capacity-restrained spreading or was it done based on behavioral principles? Which ones? For instance, we know that flextime and similar plans have largely failed in Honolulu because although several employers allow flextime, school-children have fixed start times which, in-turn, defines a family's departure time, mode choice and route. How were real constraints such as this one accounted for?*

Response: The demand spreading was incorporated into the OMPO model as part of the validation process. The Primary Corridor Transportation Project made no modifications to this.

The OMPO model is based on detailed travel behavior data collected though travel diaries kept by entire families. These data included adjustments in schedule and mode of travel based on needs such as dropping children at school. It is this linked trip behavior that drove the design of the OMPO model trip purposes.

51. *Honolulu is quite unique in many respects including travel. For example, many people have multiple jobs, the majority of students are commuters and part-timers, there is no school bus service which, in turn, generates an unusually large number of drop-off/pick-up trips. Did the model account for all these facts? If so, how was a 61% increase in past transit ridership from 1991 to 2025 forecast? How much did ridership of TheBus increase in the 6 months that gasoline price increased by 60%?*

Response: The data used to develop the OMPO Travel Demand Model reflects these unique characteristics. Detailed travel diaries documented the travel characteristics of Oahu families and largely drove the formulation of the model. As a result, the OMPO Travel Demand Model has 11 trip purposes instead of the more traditional four to five trip purposes. Four of the trip purposes are dedicated to characterizing the linked nature of journey to work trips. This model form acknowledges that a significant number of trips are not made directly between home and work but includes intermediate stops (drop children off, stop at cleaners on way to work, etc.). These data were used in formulating the trip generation, trip distribution, and mode choice elements of the model. The choice of transit as a mode of travel depends on a variety of factors, of which auto operating cost (gasoline price is a component of this) is one. Parking cost, travel time, and other factors also affect mode choice.

52. *Delays due to construction have not been accounted for. There have been several studies on this subject, some of which estimated that several heavy-construction transportation projects created such congestion during construction that their delay-reduction benefits would not be able to balance construction delays for 10 to 30 years.*

Response: Construction impacts are discussed in the FEIS Section 5.12. There will be traffic delays attributable to construction. Best practice techniques for mitigating these delays will be implemented in coordination with the Hawaii Department of Transportation and the communities affected. The alternative is to do nothing, which the public has indicated in numerous meetings is unacceptable.

53. *It is difficult to accept the LOS in Table 1.2-11 as credible. The results are likely and one can easily arrive at them by multiplying existing traffic levels with a beefy growth factor. However, the fact is that congestion is self-limiting: people find ways around it without changing travel mode from automobile to mass transit. Time and again, history has shown that new transit services typically cannibalize existing transit services and carpools and fail to attract family car pools and solo-riding motorists who consist the supermajority of the commuters.*

Response: Table 1.2-11 compares the projected results of the year 2025 No-Build Alternative to existing conditions. The No-Build Alternative projects conditions that would occur if existing travel behavior and trends were to continue into the future. Given projected increases in travel demand, traffic congestion would increase. Observations of transportation corridors today would confirm that this congestion is not self-limiting.

Even if the No-Build Alternative continues existing travel trends, the traffic congestion that is projected results in increased transit ridership. The Refined LPA provides a more comprehensive transit alternative that give travelers an alternative to the auto mode and the projected ridership reflects its enhanced utility.

54. *The estimated delay per vehicle for the year 2025, are questionable (Table 4.2-2). Vehicular delay will skyrocket on arterials from which 1 to 3 lanes were taken away if realistic assumptions in BRT ridership are used.*
No build = 12.3 minutes TSM -= 11.6 minutes BRT = 12.1 minutes
The study must present the reader with current numbers (or numbers from the recent past) so that proper associations can be made using a base with which the reader is familiar with (and is reliable compared to forecasts). This applies to most of the estimates presented throughout the report.

Response: Table 4.2-2 in the MIS/DEIS presented an islandwide measure of vehicle hours of delay to assist in comparing the three alternatives analyzed. In the FEIS to present more detail analysis focusing on the locally preferred alternative (LPA) – the Refined LPA, vehicle delay is shown at the intersection level in Tables 4.4-5, 4.4-8, 4.4-9, 4.4-10, 4.4-11, 4.4-12, and 4.4-13.

55. *The study does not adequately describe transit safety issues regarding collisions with other motor vehicles and pedestrians. The primary focus of the study consisted of details such as seating and comfort level, but there was no discussion of safety issues for pedestrians, bicyclists, and other motorists. A traffic safety section should be adequately developed.*

Response: Safety is very important and was a major consideration during the preliminary design of the BRT related facilities. Please see FEIS sections 5.3.4 and 5.12.4. Where priority lanes are proposed, special markings and pavement treatments are proposed to alert motorists, pedestrians and bicyclists of the presence of BRT buses. Safety railings and impact barriers are shown on the station prototype drawings in Appendix B for the protection of waiting passengers at median island platforms. Access to these median platforms is consistently shown via a crosswalk

at a signalized intersection. Where contra-flow lanes are proposed, warning devices will be installed at each intersection and driveway along that section of alignment. Extra wide curb lanes, (a minimum of 14-feet) are proposed wherever the BRT will be sharing the lane with bicyclists.

56. *The EIS does not adequately describe energy impacts such as the cost of fuel and other uncertainties that could effect transportation in the urban core. While there is a comparison of energy consumption among the different alternatives, there should be more discussion of the impacts of changing oil prices on each of the alternatives, and how that would affect relative ridership.*

Response: It is beyond the scope of the EIS to analyze the impacts associated with fuel costs and other uncertainties that could affect transportation in the urban core.

57. *The section on Environmental Justice (as defined by Title VI) is inadequate. There should be a more complete discussion of the impacts of the project on minorities, low income households, persons with disabilities, and other groups. In addition to examining the increase in opportunities for disadvantaged groups, there should be a more detailed discussion of the extent to which environmental impacts – including pollution, noise, congestions, safety, and others – affect certain neighborhoods or population groups according to the alternatives considered. The report should summarize performance measures for each of the alternatives and their impacts on population subgroups.*

Response: Environmental Justice (EJ) populations were identified in proximity to the project. Disproportionate impacts to EJ populations are not anticipated. This analysis considered air quality, noise, traffic safety and hazardous materials impacts.

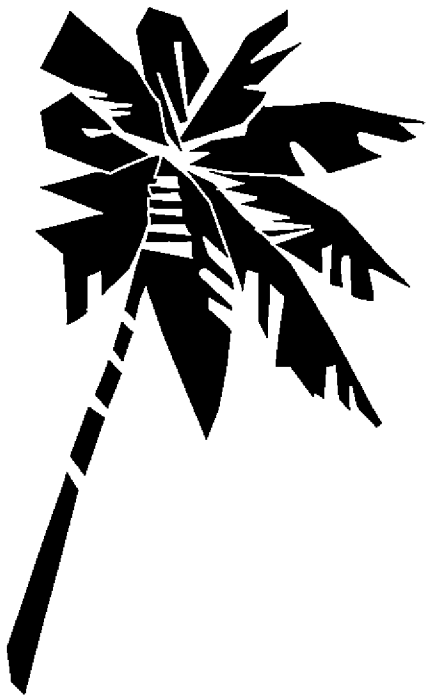
We will send you four copies of the Final Environmental Impact Statement under seperate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Chapter 7.0

Comments and Responses City & County Departments



BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

September 12, 2000

JEREMY HARRIS, Mayor

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CHARLES A. STED, Vice-Chairman
JAN M.L.Y. AMI
HERBERT S.K. KAOPUA, SR.
BARBARA KIM STANTON

KAZU HAYASHIDA, Ex-Officio
ROSS S. SASAMURA, Ex-Officio

CLIFFORD S. JAMILE
Manager and Chief Engineer

TO: MS. CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: FOR CLIFFORD S. JAMILE

SUBJECT: YOUR TRANSMITTAL OF AUGUST 23, 2000 REGARDING THE MAJOR INVESTMENT STUDY/DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for the opportunity to review and comment on the Major Investment Study/Draft Environmental Impact Statement for the Primary Corridor Transportation project.

Our previous comments on the Environmental Impact Statement Preparation Notice are still applicable and included in Appendix C of the document.

If you have any questions, please contact Scot Muraoka at 527-5221.

cc: Office of Environmental Quality Control
Robert Bramen, Parsons Brinckerhoff Quade and Douglas

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

August 16, 2000

TPD/599-05628R

MEMORANDUM

TO: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for the memorandum dated May 24, 1999 from Ms. Jan Moss Sullivan, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

The comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of the written comments, which have been numbered. The following response is provided:

1. Project alternatives are discussed in detail in Chapter 2.

Should you have any question regarding the project, please contact Kenneth Hamayasu at 527-6978.

CHERYL D. SOON

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843

99 MAY 24 A8:52

May 15, 1999

TO: MS. CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: CLIFFORD S. JAMILE

SUBJECT: YOUR MEMORANDUM OF APRIL 21, 1999 REGARDING THE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for the opportunity to review and comment on the Environmental Impact Statement Preparation Notice (EISPN) for the proposed primary corridor transportation project.

We have no objections to the proposed transportation improvements in the primary transportation corridor of Oahu. The construction plans should be submitted for our review and approval. We reserve further comments until the infrastructure improvement plans are formalized.

If you have any questions, please contact Barry Usagawa at 527-5235.

CLIFFORD S. JAMILE
Manager and Chief Engineer

cc: Office of Environmental Quality Control

AR00015421

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

APR 2 6 2002

April 23, 2002

JEREMY HARRIS, Mayor

EDDIE FLORES, JR., Chairman
CHARLES A. STED, Vice-Chairman
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BRIAN K. MINAAI, Ex-Officio
ROSS S. SASAMURA, Ex-Officio

CLIFFORD S. JAMILE
Manager and Chief Engineer

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: for CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER

SUBJECT: YOUR LETTER OF MARCH 13, 2002 ON THE SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for the opportunity to review the subject document for the proposed improvements in Oahu's primary transportation corridor.

The construction drawing should be submitted for our review and approval.

The Board of Water Supply is open to meeting with you to discuss any possible conflicts in construction scheduling.

If you have any questions, please contact Joseph Kaakua at 527-6123.

cc: Genevieve Salmonson, Office of Environmental Quality Control

Pure Water . . . our greatest need – now it needs

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD9/00-04419R
TPD4/02-01646R

MEMORANDUM

TO: CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your September 12, 2000 letter, which referred us to your May 13, 1999 letter regarding the MIS/DEIS. Part B responds to your April 23, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comment

1. *We have no objections to the proposed transportation improvements in the primary transportation corridor of Oahu. The construction plans should be submitted for our review and approval. We reserve further comment until the infrastructure improvement plans are formalized.*

   Response: Final engineering drawings will be sent for review and approval when ready. In the meantime, coordination meetings with your have been held and will continue throughout project development.

Part B – SDEIS Comments

2. *The construction drawing should be submitted for our review and approval.*

   Response: We will coordinate with you during final design and submit the drawings for review and approval.

3. *The Board of Water Supply is open to meeting with you to discuss any possible conflicts in construction scheduling.*

   Response: We will coordinate with you during final design to discuss possible construction scheduling conflicts.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

CHERYL D. SOON

DEPARTMENT OF DESIGN AND CONSTRUCTION

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 . FAX: (808) 523-4567
WEB SITE ADDRESS: www.co.honolulu.hi.us

MAY - 7 2002

JEREMY HARRIS
MAYOR

RAE M. LOUI, P.E.
DIRECTOR

ERIC O. CRISPIN, AIA
DEPUTY DIRECTOR

GEORGE T. TAMASHIRO, P.E.
ASSISTANT DIRECTOR

IN REPLY REFER TO
CDEP 02-0126

May 7, 2002

MEMORANDUM

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: RAE M. LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT,
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT (SEIS)

Thank you for the opportunity to review and provide comments to the SEIS document for the subject project. We would like to coordinate our construction projects with the BRT to minimize impacts to pedestrian and vehicular facilities, funding, drainage, and underground utilities and infrastructure. We expect that the scheduled May 20, 2002 meeting with your departmental staff and consultants will help this coordination along with clarifying the system technology alternatives, the proposed BRT alignment, exclusive travel lane and mixed traffic operation of the proposed BRT system on existing City streets, and the configuration and functional elements of the BRT transit stations.

If there are any questions, please contact me at 523-4564.

GS:dk

cc: Ms. Genevieve Salmonson, Director, OEQC

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD5/02-01843R

MEMORANDUM

TO: RAE M LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

This is in response to your May 7, 2002 letter regarding your comment on the Supplemental Draft Environmental Impact Statement (SDEIS).

> *We would like to coordinate our construction projects with the BRT to minimize impacts to pedestrian and vehicular facilities, funding, drainage, and underground utilities and infrastructure.*
>
> Response: Close coordination will be maintained with all projects being constructed by DDC. Design and construction schedules will be provided for review and comment by DDC, and construction activities will be coordinated to minimize inconvenience to the public.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

CHERYL D. SOON

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 527-6663 • FAX: (808) 527-5675 • Website: www.co.honolulu.hi.us

JEREMY HARRIS
Mayor

KENNETH E. SPRAGUE, P.E., Ph.D.
Director

BARRY FUKUNAGA
Deputy Director

ENV 00-73

MEMORANDUM

TO: MS. CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: KENNETH E. SPRAGUE, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
PRIMARY CORRIDOR TRANSPORTATION PROJECT
TMK: VARIOUS

We have reviewed the subject DEIS and have no comments to offer at this time.

Should you have any questions, please contact Alex Ho at 523-4150.

cc: SOH - OEQC
Parsons Brinckerhoff Quade and Douglas, Inc. - Mr. Robert Bramon

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD9/00-04349R

November 13, 2002

MEMORANDUM

TO: TIM STEINBERGER, P. E., DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

This is in response to your department's September 7, 2000 letter regarding the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) which stated that you had no comments. We appreciate you taking the time to review the MIS/DEIS.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

CHERYL D. SOON

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200, HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

RECEIVED
DEPARTMENT OF
FACILITY MAINTENANCE
DEC 25 4 34 PM '00

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALOI, JR.
DEPUTY DIRECTOR

August 23, 2000

TPD00-00418

Dear Participant:

Attached for your review is a Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) which was prepared pursuant to the National Environmental Policy Act (42 U.S.C. 4332), EIS law (Hawaii Revised Statutes, Chapter 343) and the EIS rules (Administrative Rules, Title 11, Chapter 200).

TITLE OF PROJECT: Primary Corridor Transportation Project

LOCATION: ISLAND OAHU DISTRICT Ewa, Honolulu

TAX MAP KEY NUMBERS: Various

AGENCY ACTION: x APPLICANT ACTION: _____

YOUR COMMENTS MUST BE RECEIVED OR POSTMARKED BY: NOVEMBER 6, 2000

In accordance with the provisions of Chapter 343, HRS, the OEQC Environmental Notice will list an October 23, 2000 deadline for comments. This is the minimum 45-day comment period. However, the proposing agency has agreed to consider and respond to any comments received or postmarked by November 6, 2000.

PLEASE SEND ORIGINAL COMMENTS TO:

PROPOSING AGENCY: City and County of Honolulu
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

CONTACT: Cheryl D. Soon, Director PHONE: (808) 523-4129

From:
November 2, 2000
We do not have any comments. If you have any questions, please call Laverne High at x-6246.

ROSS S. SASAMURA
Director and Chief Engineer

COPIES OF THE COMMENTS SHOULD BE SENT TO THE FOLLOWING:

ACCEPTING AUTHORITY: Governor, State of Hawaii
c/o Office of Environmental Quality Control
235 S. Beretania Street, Suite 702
Honolulu, Hawaii 96813

CONTACT: _____ PHONE: (808) 586-4185

CONSULTANT: Parsons Brinckerhoff Quade and Douglas, Inc.
Pacific Tower, Suite 3000
1001 Bishop Street
Honolulu, Hawaii 96813

CONTACT: Robert Brumeg, Project Manager PHONE: (808) 531-7094

If you no longer need this EIS, please recycle it. Thank you for your participation in the EIS process!

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05388R

November 13, 2002

MEMORANDUM

TO: LARRY J. LEOPARDI, P.E., DIRECTOR
DEPARTMENT OF FACILITY MAINTENANCE

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for your department's August 23, 2000 letter responding to the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS), which stated you had no comments. We appreciate your taking the time to review the MIS/DEIS.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

CHERYL D. SOON

DEPARTMENT OF PARKS AND RECREATION

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 10TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4182 • FAX: 523-4054

JEREMY HARRIS
MAYOR

WILLIAM D. BALFOUR, JR.
DIRECTOR

MICHAEL T. AMII
DEPUTY DIRECTOR

September 14, 2000

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: WILLIAM D. BALFOUR, JR., DIRECTOR

SUBJECT: MAJOR INVESTMENT STUDY
DRAFT ENVIRONMENTAL IMPACT STATEMENT
PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement (EIS) relating to the Primary Corridor Transportation Project.

The Department of Parks and Recreation acknowledges that none of the proposed alternatives would require land from or cause proximity impacts to any existing park or recreational resource.

We request that our department continue to be included as a consulted party to the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner, at 547-7396.

W. D. Balfour

WILLIAM D. BALFOUR, JR.
Director

WDB:cu
(00-231BJR)

cc: Governor, State of Hawaii
Mr. Robert Bramen, Parsons Brinkerhoff Quade and Douglas, Inc.
Mr. Don Griffin, Department of Design and Construction

DEPARTMENT OF PARKS AND RECREATION

CITY AND COUNTY OF HONOLULU

KAPOLEI HALE, 1000 ULUOHIA STREET, STE. 309 • KAPOLEI, HAWAII 96707
PHONE: (808) 692-5582 • FAX: 692-5131 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

WILLIAM D. BALFOUR, JR.
DIRECTOR

EDWARD T. "SKIPPA" DIAZ
DEPUTY DIRECTOR

April 2, 2002

02 APR 3 P2:40

MEMORANDUM

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: WILLIAM D. BALFOUR, JR., DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

Thank you for the opportunity to review and comment on the Supplemental Draft Environmental Statement relating to the Primary Corridor Transportation Project.

The Department of Parks and Recreation has no comment on the proposed refinements to the Bus Rapid Transit system.

Should you have any questions, please contact Mr. John Reid, Planner, at 692-5454.

W. D. Balfour

WILLIAM D. BALFOUR, JR.
Director

WDB:je

cc: Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
Mr. Don Griffin, Department of Design and Construction

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD9/00-04508R
TPD4/02-01273R

November 13, 2002

MEMORANDUM

TO: WILLIAM D. BALFOUR, JR., DIRECTOR
DEPARTMENT OF PARKS AND RECREATION

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

This is in response to your comments regarding the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your September 14, 2000 letter regarding the MIS/DEIS, and Part B responds to your April 2, 2002 letter regarding the SDEIS.

Part A - MIS/DEIS Comments

1. *The Department of Parks and Recreation acknowledges that none of the proposed alternatives would require land from or cause proximity impacts to any existing park or recreational resource.*

   Response: Thank you for taking the time to review the MIS/DEIS.

2. *We request that our department continue to be included as a consulted party to the EIS process.*

   Response: DTS will continue to consult with the Department of Parks and Recreation.

Part B – SDEIS Comments

3. *The Department of Parks and Recreation has no comment on the proposed refinements to the Bus Rapid Transit System*

   Response: Thank you for taking the time to review the SDEIS.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

CHERYL D. SOON

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

2000/CLOG-4728(RY)

November 16, 2000

MEMORANDUM

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: RANDALL K. FUJIKI, AIA, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

SUBJECT: MAJOR INVESTMENT STUDY/DRAFT ENVIRONMENTAL IMPACT STATEMENT (MIS/DEIS) FOR PRIMARY CORRIDOR TRANSPORTATION PROJECT, EWA TO HONOLULU, OAHU

We support your efforts to address traffic congestion issues along the primary corridor and agree that there should be alternative means for contributing to improved mobility for Oahu's population. The alternative selected should be closely coordinated with proposed revisions to the Primary Urban Center and the Central Oahu Development Plan which are presently undergoing major revisions. We look forward to working closely with your staff on this, and offer the following comments for your consideration:

1. All three transportation alternatives presented (the No-Build; the Transportation System Management or "hub-and-spoke" system; and the Bus Rapid Transit Alternative) generally support the City's *General Plan* Transportation objectives and policies (Chapter V, Objective A).

2. A review of applicable Development Plan Public Facilities maps and Public Infrastructure maps indicates that some of the proposed facilities are not yet reflected for inclusion on said maps. Thus, facilities such as the transit centers, park & ride facilities, special facilities that involve roadway widening, and other major improvements not shown within the primary corridor, may be subject to requirements for amending the Primary Urban Center (PUC) and the Central Oahu Development Plan Public Facilities maps. In addition, proposed improvements not shown on the Ewa Development Plan Public

Infrastructure Map (PIM) will be subject to inclusions in the PIM for Ewa. These improvements include park & ride facilities, transit centers, and special ramps and other proposed roadway improvements if they involve road widening. However, the requirement for a Public Facilities Map amendment is subject to change as the PUC and Central Oahu Development Plans complete their revision processes.

3. On page 3-18, major Special Management Area (SMA) use permits are required for those developments that exceed a valuation of $125,000, not $150,000. With respect to Section 3.8.6., the City Council decides on major SMA permits and the Director of Planning and Permitting decides on minor SMA permits.

4. Regarding Section 5.8.3., development within flood plains must meet requirements relating to flood hazard district of Article 9 of the Land Use Ordinance.

5. On Figure 3.1-5F, any references to the R-2 Residential District should be replaced with references to the R-3.5 Residential District.

6. The portion of Auahi Street between Ward Avenue and Kamani Street is privately owned and maintained.

7. Since all possible locations of the proposed transit centers were not included in the DEIS, we assume that further discussion on these alternatives will be addressed in a separate document. This will facilitate participation by affected and interested community members and agencies can begin assessing the adequacy of existing and proposed support infrastructure.

Should you have any questions regarding the DPP comments, please contact Raymond Young of our Community Action Plans Branch at 527-5839.

Sincerely yours,

RANDALL K. FUJIKI, AIA
Director of Planning and Permitting

RKF:lh
cc: Robert Bramen, Parsons Brinkerhoff
Quade and Douglas, Inc.

Doc 60559

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05802R

November 13, 2002

MEMORANDUM

TO: LORETTA K. C. CHEE, ACTING DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

This is in response to your November 16, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We support your efforts to address traffic congestion issues along the primary corridor and agree that there should be alternative means for contributing to improved mobility for Oahu's population. The alternative selected should be closely coordinated with proposed revisions to the Primary Urban Center and the Central Oahu Development Plan which are presently undergoing major revisions.*

   Response: As described in Section 5.1.3, Subsection 3, of the FEIS, "Consistency with Land Use Plans", the Refined LPA (BRT Alternative) was evaluated as being "highly consistent" with the policies and guidelines of the Central Oahu and Public Review Draft Primary Urban Center Development Plan updates. DTS will continue coordinating with the DPP throughout project development to insure that the project remains consistent with the plan updates.

2. *All three transportation alternatives presented (the No-Build; the Transportation System Management or "hub-and-spoke" system; and the Bus Rapid Transit Alternative) generally support the City's General Plan Transportation objectives and policies (Chapter V, Objective A).*

   Response: Thank you for taking the time to review the MIS/DEIS.

3. *A review of applicable Development Plan Public Facilities maps and Public Infrastructure maps indicates that some of the proposed facilities are not yet reflected for inclusion on said maps. Thus, facilities such as the transit centers, park-and-ride facilities, special facilities that involve roadway widening, and other major improvements not shown within the primary corridor, may be subject to requirements for amending the Primary Urban Center (PUC) and the Central Oahu Development Plan Public Facilities maps.*

   Response: The PUC Public Facilities Map has been revised to include the BRT section from Iwilei to Waikiki.

AR00015428

4. *In addition, proposed improvements not shown on the Ewa Development Plan Public Infrastructure Map (PIM) will be subject to inclusions in the PIM for Ewa. These improvements include park-and-ride facilities, transit centers, and special ramps and other proposed roadway improvements if they involve road widening.*

   Response: DTS concurs and will work with your department to insure that the project components are included on the Ewa PIM.

5. *However, the requirement for a Public Facilities Map amendment is subject to change as the PUC and Central Oahu Development Plans complete their revision processes.*

   Response: DTS concurs.

6. *On page 3-18, major Special Management Area (SMA) use permits are required for those developments that exceed a valuation of $125,000, not $150,000.*

   Response: Capital costs of major SMA permits have been corrected to $125,000 in Sections 3.1.5 and 5.1.3 of the FEIS.

7. *With respect to Section 3.8.6., the City Council decides on major SMA permits and the Director of Planning and Permitting decides on minor SMA permits.*

   Response: The FEIS now recognizes the appropriate SMA permitting roles of the City Council and the Director of Planning and Permitting.

8. *Regarding Section 5.8.3., development within the flood plains must meet requirements relating to flood hazard district of Article 9 of the Land Use Ordinance.*

   Response: The comment states that developments within flood plains must be developed according to the Land Use Ordinance. The FEIS acknowledges that developments in flood plains must meet requirements for flood hazard districts as stated in the Land Use Ordinance.

9. *On Figure 3.1-5F, any references to the R-2 Residential District should be replaced with references to the R-3.5 Residential District.*

   Response: As requested, references to R-2 zoning districts have been changed to R-3.5 zoning districts.

10. *The portion of Auahi Street between Ward Avenue and Kamani Street is privately owned and maintained.*

    Response: DTS is aware of Auahi Street's ownership and maintenance status. Coordination efforts are ongoing with the appropriate parties.

11. *Since all possible locations of the proposed transit centers were not included in the DEIS, we assume that further discussion on these alternatives will be addressed in a separate document. This will facilitate participation by affected and interested community members and agencies can begin assessing the adequacy of existing and proposed support infrastructure.*

Response: Impacts and mitigation measures associated with the Kapolei and North-South Road Transit Centers are discussed in the FEIS. The remaining transit centers will be developed with or without the Refined LPA and are independent projects. These independent projects will have the appropriate environmental documents prepared.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

CHERYL D. SOON

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

December 8, 2000

Cheryl D. Soon
Director
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Mrs. Soon:

Subject: Primary Corridor Transportation Project

A presentation on the Primary Corridor Transportation Project was held for the Committee for Accessible Transportation (CAT) at its October 13, 2000 meeting. It was apparent that the City administration has placed great emphasis on the Bus Rapid Transit (BRT) alternative in order to improve public transportation in the affected areas. The CAT did not take a position on whether or not to endorse any of the three transit alternatives presented. However, the CAT recommends that the City address the following specific items related to access for persons with disabilities regardless of which alternative is ultimately selected:

- All future public transit vehicles should feature accessibility that goes beyond the ADA minimum specification requirements with particular respect to:
  - ingress and egress (including lift platform or ramp width, and aisle width between the fare box and opposing furniture), and
  - turn around space for wheelchairs and scooters at the tie-down locations.
- All future public transit vehicles should provide additional space for service animals where the animal is not placed in the path of passengers or in tie-down areas.

If the BRT becomes the chosen alternative, the CAT recommends that TheHandi-Van vehicles be permitted to utilize the dedicated BRT lanes to facilitate quicker travel times. This recommendation does not suggest that TheHandi-Van vehicles should utilize BRT passenger loading/unloading facilities.

Thank you for considering our perspective.

Sincerely,

TOM BATY, Chair

HELEN MYERS, Vice Chair

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD12/00-05895R

November 13, 2002

MEMORANDUM

TO: TOM BATY, CHAIR
COMMITTEE FOR ACCESSIBLE TRANSPORTATION

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

This is in response to your December 8, 2000 letter regarding comments on the MIS/DEIS.

1. *All future public transit vehicles should feature accessibility that goes beyond the ADA minimum specification requirements with particular respect to: a) ingress and egress (including lift platform or ramp width, and aisle width between the fare box and opposing furniture), and b) turn around space for wheelchairs and scooters at the tie-down locations.*

   Response: Design criteria used in preparing the preliminary engineering documents contained in the FEIS Appendix B reflect input from a coordination meeting with the DTS Committee for Accessible Transportation.

2. *All future public transit vehicles should provide additional space for service animals where the animal is not placed in the path of passengers or in tie-down areas.*

   Response: Space allocations for elderly and disabled seating (and service animals), wheel chair provisions, and the design for egress in and out of the vehicle shall be reviewed with members of the DTS Committee for Accessible Transportation when finalizing the BRT bus design. The manufacturer will focus on the nature of these design elements and the adequacy of space for service animals in a crowded vehicle once the contract is awarded. This is the most efficient time to work out the seating lay-out and other dimensions critical to this issue.

   In addition, the operator of the BRT service can further address this issue by: 1) providing signage to include service animals where there are provisions requesting that designated seating be made available for elderly and disabled patrons; and 2) Educating all bus operators in the accommodation of service animals by disabled persons via the educational training programs developed by the FTA Office of Civil Rights.

3. *If the BRT becomes the chosen alternative, the Committee for Accessible Transportation recommends that TheHandi-Van vehicles be permitted to utilize the dedicated BRT lanes to facilitate quicker travel times. This recommendation does not suggest that TheHandi-Van vehicles should utilize BRT passenger loading/unloading facilities.*

Response: Sharing of BRT lanes by TheHandi-Van vehicles has merit and will be considered on a trial basis. If proven to not hinder the operations or safety of either the BRT or TheHandi-Van, then it will be implemented permanently.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

CHERYL D. SOON

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET, SUITE H425 • HONOLULU, HAWAII 96819-1859
TELEPHONE: (808) 831-7761 • FAX: (808) 831-7755 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

ATTILIO K. LEONARDI
FIRE CHIEF

JOHN CLARK
DEPUTY FIRE CHIEF

September 1, 2000

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: ATTILIO K. LEONARDI, FIRE CHIEF

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
TPD00-00418

We received your memorandum dated August 23, 2000, regarding the subject project.

The Honolulu Fire Department has no objections to any of the alternatives of the project, however, requests that the following are complied with:

1. Maintain fire apparatus access throughout the construction site for the duration of the project.

2. Notify the Fire Communication Center (523-4411) of any interruption in the existing fire hydrant system during the project.

Should you have any questions, please call Battalion Chief Kenneth Silva of our Fire Prevention Bureau at 831-7778.

ATTILIO K. LEONARDI
Fire Chief

AKL/KS:jo

cc: Governor, State of Hawaii, c/o Office of Environmental Quality Control
Robert Brumen, Parsons Brinckerhoff Quade and Douglas, Inc.

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET, SUITE H425 • HONOLULU, HAWAII 96819-1859
TELEPHONE: (808) 831-7761 • FAX: (808) 831-7750 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

ATTILIO K. LEONARDI
FIRE CHIEF

JOHN CLARK
DEPUTY FIRE CHIEF

March 21, 2002

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: ATTILIO K. LEONARDI, FIRE CHIEF

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT
REFERENCE NO.: TPD02-00141

We received your memorandum dated March 13, 2002, regarding the above-mentioned project. The Honolulu Fire Department has no objections to any of the alternatives of the project, however, we request that the following be complied with:

1. Maintain fire apparatus access throughout the construction sites for the duration of the project.

2. Notify the Fire Communication Center at 523-4411 regarding any interruption in the existing fire hydrant system during the project.

Should you have any questions, please call Battalion Chief Kenneth Silva of our Fire Prevention Bureau at 831-7778.

ATTILIO K. LEONARDI
Fire Chief

AKL/SK:jl

cc: Genevieve Salmonson, Director
Office of Environmental Quality Control

AR00015432

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD9/00-04369R
TPD3/02-01200R

MEMORANDUM

TO: ATTILIO K. LEONARDI, FIRE CHIEF
FIRE DEPARTMENT

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

This is in response to your comments regarding the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Statement (SDEIS). We are responding in two parts. Part A responds to your September 1, 2000 letter regarding the MIS/DEIS, and Part B responds to your March 21, 2002 letter regarding the SDEIS.

Part A - MIS/DEIS Comments

1. *Maintain fire apparatus access throughout the construction site for the duration of the project.*

   Response: Access for fire apparatus will be maintained during project construction and operation.

2. *Notify the Fire Communication Center (523-4411) of any interruption in the existing fire hydrant system during the project.*

   Response: Thank you for this information. The Fire Communication Center will be notified of any anticipated interruption in the existing fire hydrant system.

Part B – SDEIS Comments

3. *Maintain fire apparatus access throughout the construction sites for the duration of the project.*

   Response: Project design will accommodate fire access requirements.

4. *Notify the Fire Communication Center at 523-4411 regarding any interruption in the existing fire hydrant system during the project.*

   Response: Project construction documents will include fire notification requirements.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

CHERYL D. SOON

MAYOR'S ADVISORY COMMITTEE ON BICYCLING
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 527-5044 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

November 6, 2000

Department of Transportation Services
711 Kapiolani Blvd
Suite 1200
Honolulu, HI 96813

Draft EIS/MIS for Primary Corridor Transportation Project

The Mayor's Advisory Committee on Bicycling has reviewed the Draft Environmental Impact Statement that was prepared for the City and County of Honolulu, Department of Transportation.

The City proposes semi-exclusive transit lanes and traffic signal improvements to give priority to buses and other transit vehicles during peak traffic hours on congested arterial streets. A policy would be established to allow bicycles to use the semi-exclusive curbside lanes where there is no adjacent bike lane or acceptable alternative route. Some key routes affected include segments of Ala Moana Boulevard, King and Beretania Streets, Ward Avenue, Kapiolani Boulevard, University Avenue, Kalia/Saratoga, Nimitz Highway, Dillingham Boulevard, Kapolei Parkway, and Farrington Highway (Fort Barrette Road to Kunia Road).

The Committee supports the City's proposal to provide improved transit systems along the Primary Urban Corridor as it promotes alternative and environmentally friendly forms of transportation and reduces reliance on private automobiles. However, we offer the following comments as the plan affects bicycle and pedestrian facilities:

Proposed Action

A map of existing and proposed bikeways that will be affected should be added to the Final EIS. The map should locate bikeway segments and indicate measured distances that will be designated joint bus/bike use, proposed alternate bike routes, and new bike lanes. How many total feet of bicycle facilities will be affected? Bicycle path design should be in compliance with American Association of State Highway and Transportation Officials (AASHTO) codes and should follow the recommendations of the City's *Honolulu Bicycle Master Plan* (April 1999).

We fully support construction of additional bicycle parking and "staging" areas at transit centers and park and ride facilities to enhance bicycle travel in the Primary Corridor.

Safety

We support the City's proposal to provide safe alternative bicycle routes where the transitway interferes with the present pattern of bicycle travel. However, it is important to note that bicyclists are allowed to travel on and share City roadways. Bicyclists will continue to ride on those roadways most convenient to their needs. We would not support prohibiting bicyclists from riding on existing bicycle routes. We caution the City to carefully study alternative routes; avoid crossing main streets several times along a "detour," compromising safety and convenience. (Refer to the *Oregon Bike Plan*, which diagrams potential problems associated with detoured bike routes, at the website: www.odot.state.or.us/techserv/bikewalk/planimag/principles.htm)

The Draft EIS mentions that joint-use bus/bike lanes occur in other major cities, including Portland, Seattle, Madison, WI, New York, Toronto, San Francisco, and London. The American Association of Pedestrian and Bicycle Professionals (ph. 202-366-4071) gathered information from a variety of City Bicycle Coordinators regarding their experiences with shared bicycle, bus, and right-turn lanes. Items noted include:

- The preferred width for shared bus/bicycle lanes is 16 feet for heavily traveled routes. This allows a moving bus to pass a bicyclist without the bus drifting into the adjacent travel lane or forcing the bicyclist into the gutter. The City's proposed plan indicates 14-foot wide shared lanes. However, this is often an improvement over existing narrower lane width.
- The City of Portland, Oregon produced a successful training video for instructing transit drivers the best methods of interacting with cyclists on roadways. We suggest that the City contact the Portland Bicycle Coordinator. Information can be found at the website: www.trans.ci.portland.or.us/traffic_management/bicycle_program/
- Curbside transit lanes often fill up with motorists turning right, squeezing bicyclists out, and defeating the purpose of improved transit service. Constructing right-hand turn pockets would alleviate the problem in the most congested areas.
- In general, the cities that have implemented shared bus/bike lanes reported that commute conditions improved for buses and bikes compared to the No-Action scenario.

Traffic-calming methods would also improve safety for bicyclists and pedestrians along the transitways.

Consultations with Bicycling and Pedestrian Community

As noted in the EIS, the City must work with the community to refine bicycling and pedestrian components of the plan. Further details are yet to be worked out, including mapping locations of affected existing and future bikeways, design details, alternative bicycle routes, directional and safety signage, enforcement of the exclusive use lanes, and incentives to encourage public transit system use.

The Bicycling Committee offers our assistance to the Department of Transportation Services and their consultant, Parsons Brinkerhoff, on bicycle and pedestrian facility planning issues. Please contact our committee (ph. 521, 5361, Lisa Reinke) and groups such as the Hawaii Bicycling League (ph. 735-5756) to build widespread support among the potential users.

The project would provide alternative travel opportunities benefiting the community. We hope to see future details in the Final Environmental Assessment. Thank you for the opportunity to comment.

Sincerely,

Lisa W. Reinke
Chair

cc: Office of Environmental Quality
and Mr. David Atkin, Parsons Brinkerhoff

AR00015434

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05425R

November 13, 2002

MEMORANDUM

TO: LISA W. REINKE, CHAIR
MAYOR'S ADVISORY COMMITTEE ON BICYCLING

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

This is in response to your November 6, 2000 letter regarding comments on the MIS/DEIS.

1. *A map of existing and proposed bikeways that will be effected should be added to the Final EIS. The map should locate bikeway segments and indicate measured distances that will be designated joint bus/bike use, proposed alternate bike routes, and new bike lanes.*

   Response: Figures 3.1-4A to 3.1-4C show existing and planned bikeway facilities in the project area. The Refined LPA will not displace any existing bikeway facility, such as bike lanes, paths, or routes. However, bike lanes on University Avenue would be moved next to the curb because on-street parking will be removed. To improve bicycling transportation under the Refined LPA, the Hawaii Bicycling League (HBL) was invited to participate in project planning. Where the In-Town BRT lane is curbside, cyclists would be allowed use of these lanes. Where the In-Town BRT lane is in the center of the street, the project would attempt to establish 14-foot-wide curb lanes where bike lanes are not possible. In terms of future bikeway facilities, as identified in the Honolulu Bicycle Master Plan, the Refined LPA would not preclude any of the suggested projects. The HBL agreed that the Refined LPA would improve bicycle transportation within Honolulu.

2. *How many total feet of bicycle facilities will be affected?*

   Response: As indicated in the response to comment #1, the proposed project will not displace existing or proposed bicycle facilities.

3. *Bicycle path design should be in compliance with American Association of State Highway and Transportation Officials (AASHTO) codes and should follow the recommendations of the City's Honolulu Bicycle Master Plan (April 1999).*

   Response: The project does not include any proposed bike paths.

4. *We fully support construction of additional bicycle parking and "staging" areas at transit centers and park and ride facilities to enhance bicycle travel in the Primary Corridor.*

   Response: Thank you for supporting this project component.

5. *We support the City's proposal to provide safe alternative bicycle routes where the transitway interferes with the present pattern of bicycle travel. However, it is important to note that bicyclists are allowed to travel on and share City roadways. Bicyclists will continue to ride on those roadways most convenient to their needs. We would not support prohibiting bicyclists from riding on existing bicycle routes.*

   Response: See response to comment #1.

6. *We caution the City to carefully study alternative routes; avoid crossing main streets several times along a "detour," compromising safety and convenience. (Refer to the Oregon Bike Plan which diagrams potential problems associated with detoured bike routes, at the website: www.odot.state.or.us/techserv/bikewalk/planmag/principles.htm).*

   Response: The In-Town BRT will not require the detouring of any bike route. Cyclists will be allowed to use curbside BRT lanes.

7. *The preferred width for shared bus/bicycle lanes is 16 feet for heavily traveled routes. This allows a moving bus to pass a bicyclist without the bus drifting into the adjacent travel lane or forcing the bicyclist into the gutter. The City's proposed plan indicates 14-foot wide shared lanes. However, this is often an improvement over existing narrower lane width.*

   Response: See response to comment #1.

8. *The City of Portland, Oregon produced a successful training video for instructing transit drivers the best methods of interacting with cyclists on roadways. We suggest that the City contact the Portland Bicycle Coordinator.*

   Response: DTS will contact the Portland Bicycle Coordinator.

9. *Curbside transit lanes often fill up with motorists turning right, squeezing bicyclists out, and defeating the purpose of improved transit service. Constructing right-hand turn pockets would alleviate the problem in the most-congested areas.*

   Response: DTS agrees with this statement and on Kuhio Avenue, right-turn pockets are included as part of the project.

10. *In general, the cities that have implemented shared bus/bike lanes reported that commute conditions improved for buses and bikes compared to the No-Action scenario.*

    Response: We concur.

11. *Traffic-calming methods would also improve safety for bicyclists and pedestrians along the transitways.*

    Response: We concur. Except where proposed as a mitigation measure, traffic calming is not a part of this project.

12. *As noted in the EIS, the City must work with the community to refine bicycling and pedestrian components of the plan. Further details are yet to be worked out, including mapping locations of effected existing and future bikeways, design details, alternative bicycle routes, directional and*

safely signage, enforcement of the exclusive use lanes, and incentives to encourage public transit system use. The Bicycling Committee offers our assistance to the Department of Transportation Services and their consultant, Parsons Brinckerhoff, on bicycle and pedestrian facility planning issues.

Response: The DTS will continue to coordinate with the Bicycling Committee on bicycle and pedestrian facility planning issues.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

CHERYL D. SOON

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111
http://www.honolulupd.org
www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

LEE D. DONOHUE
CHIEF

MICHAEL CARVALHO
ROBERT AU
DEPUTY CHIEFS

OUR REFERENCE CS-TL

October 31, 2000

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: LEE D. DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for the opportunity to review the Major Investment Study/Draft Environmental Impact Statement for the Primary Corridor Transportation Project.

The Honolulu Police Department has the following concerns:

Transit Centers: Assaults and other crimes against people who use these facilities may become a problem and may cause an increase in calls for police service.

Bus Rapid Transit: Having bus stops in the middle of lanes of traffic may cause vehicular and pedestrian traffic safety problems as pedestrians try to cross lanes of traffic to get to street curbs. This may cause an increase in calls for police service.

If there are any questions, please call Sergeant Robert Lung of the Traffic Division at 529-3497 or Carol Sodetani of the Support Services Bureau at 529-3658.

LEE D. DONOHUE
Chief of Police

By
EUGENE UEHURA
Assistant Chief
Support Services Bureau

cc: Office of Environmental Quality Control
Parsons Brinckerhoff Quade and Douglas, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05334R

November 13, 2002

MEMORANDUM

TO: LEE D. DONOHUE, CHIEF OF POLICE
POLICE DEPARTMENT

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

This is in response to your October 31, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Assaults and other crimes against people who use these facilities [transit centers] may become a problem and may cause an increase in calls for police service.*

   Response: Security planning is a part of the overall system design. System security will be provided to protect the public and the transit system from crime and vandalism. Security system elements may include a combination of design treatments and use of personnel to deter crime (e.g., video surveillance, transit system workers, special transit police, and local police). A comprehensive System Security Plan will be prepared during the final design phase to address passenger security, employee security, revenue security, vandalism, theft, crowd control, power/mechanical failures, fires, accidents, and other incidents.

2. *Having bus stops in the middle of lanes of traffic may cause vehicular and pedestrian traffic safety problems as pedestrians try to cross lanes of traffic to get to street curbs. This may cause an increase in calls for police service.*

   Response: The preliminary design of the median transit stations includes features, such as railings to discourage transit patrons from exiting the platform except at designated locations and serve as a barrier between the platform and the general-purpose traffic lanes. Transit stations located in the median will be located at signalized intersections and will include cross walks and traffic signals to allow pedestrians to safely cross the street.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Cheryl D. Soon
CHERYL D. SOON

November 14, 2000

TESTIMONY

TO: THE HONORABLE DUKE BAINUM
TRANSPORTATION CHAIR AND MEMBERS OF THE
TRANSPORTATION COMMITTEE

FROM: CHRISTINA KEMMER, CHAIR
TRANSPORTATION COMMISSION

SUBJECT: **Transportation Commission Testimony in Unanimous Support of Resolution 00-29 for the Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project.**

Chair Bainum, members of the committee, I am Christina Kemmer, chair of the City and County of Honolulu's Transportation Commission.

The commissioners are here today to speak in unanimous support for a fully integrated public transit system, and to the selection of a locally preferred alternative for the primary corridor transportation project.

Our commission is a working commission, with commissioners having taken the time to attend and participate in workshops, visit on-site integrated transportation systems, and listen to the voice of the communities they live in.

Dept. Com. No. 849

We have learned that our community needs a transportation system that is:

- Timely, frequent, and secure.
- Environmentally friendly.
- Accessible to the physically challenged.
- Timely and reliable for housing, job training, employment, education, recreation, child care, health, and social services.
- Capable of moving employees and students to and from the urban core including Waikiki.
- Will revitalize neighborhoods and stimulate economic prosperity.
- Financially affordable.

We have also learned that a campaign on how to use public transportation for work, recreation, entertainment, and for access to education is necessary.

Five of our six commissioners are here today to speak to their support for Resolution 00-29. See attached list.

Donald Takaki our vice chair is on the mainland and has asked me to convey his support with the following comments: "As the vice chair of the Transportation Commission, and vice president of Island Movers, Inc. I am deeply impacted by transportation issues on our island. I experience first-hand the effect on our business and our community when we have delays and congestion on our roadways. Although there is no perfect solution to our problems, I believe BRT is a positive step that we should not hesitate to take. From the DEIS, I believe that it will help integrate our transportation system, and pave the way for further enhancements."

At this time I would like to introduce our commissioners and ask them to comment on the reasons for their support.

In conclusion, we feel an information gathering process has occurred beyond the federally mandated requirements. Community information was gathered through Trans2K workshops, presentations and multiple public hearings, all giving the public a chance to shape the alternatives and comment on the impacts The community agrees traffic is a problem and is getting worse. They also feel we need to do something and move ahead with appropriate solutions for our lifestyle and environment. The City and County Department of Transportation Services has been responsive by implementing express bus service, commencing hub and spoke systems with circulators, implementing traffic calming measures and an island-wide bike plan. Additionally, the State has sponsored a ferry from Barber's Point and highway zipper lanes. Time has also been allocated to ensure land use and business policies are taking public transportation into consideration.

In conclusion, let us move ahead. We thank you for this opportunity to testify.

END

Role of the Transportation Commission:
The Transportation Commission's role is advisory to the Mayor and City Council of the City and County of Honolulu. The Commission advises and makes recommendations to reflect the present and future public transportation needs of residents, businesses, and visitors to the Island of Oahu.

CITY & COUNTY OF HONOLULU
TRANSPORTATION COMMISSION
OCTOBER 2000

Name/Address	Term Expiration
Christina Kemmer, Chair Communications-Pacific, Inc. Amfac Center - Hawaii Tower, Penthouse Two 745 Fort Street Honolulu, Hawaii 96813 Telephone 808-521-5391 Fax 808-537-6836 E-mail: ckemmer@commpac.com	**June 30, 2002**
John W. Dell 1521 Palapala Place Honolulu, Hawaii 96817 Telephone 808-845-7455 E-mail: JWDell@hgea.org	June 30, 2000
Paul T. Leong 45-630 Hinamoa Loop Kaneohe, Hawaii 96744 Telephone 808-235-1096	June 30, 2000
Charles O. Swanson 3038 Oahu Avenue Honolulu, Hawaii 96822 Telephone 808-988-3123 E-mail: channes@aol.com	June 30, 2001
Donn M. Takaki, Vice Chair 98-415 Puaalii Street Aiea, Hawaii 96701 Telephone 808-832-4807 Fax 808-842-1701 E-mail: donnt@islandmovers.com	June 30, 2001
Claire Tamamoto 99-21- Hailimanu Place Aiea, Hawaii 96701 Telephone 808-948-8345 Fax 808-946-6347/Pager 808-598-2076	June 30, 2004

Points of Contact

Cheryl D. Soon
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813
808-523-4125
808-523-4730 Fax

Paul Steffens
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Honolulu, Hawaii 96813
808-527-6891/808-596-2380
psteffens@co.honolulu.hi.us

James E. Cowan, President & General Manager
Oahu Transit Services, Inc.
811 Middle Street
Honolulu, Hawaii 96819
808-848-4403/848-4419 (Fax)

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Ms. Christina Kemmer, Chair
Transportation Commission
City and County of Honolulu
Amfac Center – Hawaii Tower, Penthouse Two
745 Fort Street
Honolulu, Hawaii 96813

Dear Ms. Kemmer:

Subject: Primary Corridor Transportation Project

This responds to your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). At the November 14, 2000 Transportation Committee meeting, you supported selecting the Bus Rapid Transit as the Locally Preferred Alternative. Thank you for supporting the project.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Donn M. Takaki, Vice-Chair
Transportation Commission
City and County of Honolulu
98-415 Puaalii Street
Aiea, Hawaii 96701

Dear Mr. Takaki:

Subject: Primary Corridor Transportation Project

This responds to your comment on the Major Investment Study/Draft Environmental Impact Statement. At the November 14, 2000 Transportation Committee meeting, you supported selecting the Bus Rapid Transit as the Locally Preferred Alternative. Thank you for supporting the project.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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Chapter 7.0

Comments and Responses
Elected Officials

DANIEL K. AKAKA
HAWAII

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TELEPHONE: (202) 224-6361

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United States Senate

WASHINGTON, DC 20510-1103

COMMITTEES:
ARMED SERVICES
BANKING, HOUSING, AND URBAN AFFAIRS
ENERGY AND NATURAL RESOURCES
GOVERNMENTAL AFFAIRS
INDIAN AFFAIRS
VETERANS' AFFAIRS
SELECT COMMITTEE ON ETHICS

April 22, 2002

APR 29 2002

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, #1200
Honolulu, HI 96813

Dear Ms. Soon:

Thank you for providing me a copy of the Supplemental Draft Environmental Impact Statement (DEIS) for the Primary Corridor Transportation Project prepared by the U.S. Department of Transportation and the City and County of Honolulu Department of Transportation.

I appreciate receiving this information and look forward to reviewing the final Environmental Impact Statement for this project.

Once again, mahalo for taking the time to share the Supplemental DEIS with me.

Aloha pumehana,

Daniel K. Akaka

DANIEL K. AKAKA
U.S. Senator

PRINTED ON RECYCLED PAPER

DEPARTMENT OF TRANSPORTATION SERVICES

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MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01674R

November 13, 2002

The Honorable Daniel K. Akaka
United States Senator
3106 Prince Jonah Kuhio
Kalanianaole Federal Building
P.O. Box 50144
Honolulu, Hawaii 96850

Dear Senator Akaka:

Subject: Primary Corridor Transportation Project

This is in response to your April 22, 2002 letter regarding the Supplemental Draft Environmental Impact Statement (SDEIS), which stated you had no comments. We appreciate you taking the time to review the SDEIS.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

The Senate
Twentieth Legislature
State of Hawaii

November 6, 2000

Ms. Cheryl Soon, Director
City Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Subject: Comments on Primary Corridor Transportation Project Draft EIS

Dear Ms. Soon:

The purpose of this letter is to submit our comments on the Draft Environmental Impact Statement for the Primary Corridor Transportation Project. We appreciate your support of the October 2nd community briefing we co-sponsored, and hope that the comments presented will be useful to you in preparing the final EIS and shaping the public decision-making process on this project.

We support the Transportation Management System alternative, if it is recommended in the final EIS. We have not yet decided on our support of the Bus Rapid Transit alternative, because we believe more information is needed on this option. If the BRT system is the option recommended, we believe that – besides more information, the public will need more discussion on the project's assumptions, strategies, and projections in order to accept city actions to implement the project. After all, this would be one of the largest CIP projects in the city's history.

Our comments on the DEIS all pertain to the Bus Rapid Transit alternative and are submitted in the form of requests or questions, listed below, because our aim is to have additional information on the BRT option included in the final EIS.

1. Please provide more detailed information on BRT ridership projections, including underlying assumptions, breakdowns for peak traffic periods of the day, etc., for the Kapiolani Boulevard route segment.
2. Also, provide detailed information on vehicular traffic count projections on Kapiolani Boulevard, from South Street to University Avenue, after the BRT route has removed two lanes from vehicular use. We are concerned that removal of two traffic lanes on Kapiolani Blvd. may cause severe traffic congestion, especially for residents who live in this area.
3. What are the assumptions, calculations, projections, etc. under the BRT option that are used to project a reduced traffic count along Kapiolani Boulevard, including peak traffic periods, since the traffic capacity is reduced by two lanes?

4. Since vehicular ridership is reduced due to removal of two traffic lanes on Kapiolani Blvd, please provide information on the number of vehicular drivers and riders that will choose to use the BRT system, rather their own vehicles, for their transportation needs. Also, provide information and assumptions to explain the behavior of vehicular drivers and riders in choosing the BRT over personal vehicles. Has any studies been conducted or utilized on this subject?
5. While a number of current vehicular riders may use the BRT system under certain conditions, many such riders will continue to use their vehicles for trips to destinations outside the BRT route and other short trips. What are the traffic count projections for these types of trips, and won't these trips still require travel along the congested Kapiolani Boulevard?
6. Some Waikiki residents are concerned that the Waikiki spur does not include the Kalakaua Avenue section between the Kapiolani Blvd. & Kuhio Avenue junction. What combination bus/BRT route will be available for Waikiki residents living in Four Paddle condo, near Kuhio Ave. and Launiu St., who want to go to the convention center or to the University of Hawaii? Also, what is the justification for designing the BRT routes so as to make it not useful for conventioneers to travel from their hotels to the convention center?
7. Waikiki businesses/hotels are concerned about the loss of another lane in Waikiki. Specifically what loading zones and driveways now used by businesses will be removed and/or blocked under the BRT option, and what mitigation measure will be taken for each? Also, what are the contingency plans to mitigate unexpected problems, such water main breaks on Kalakaua Ave.?
8. Please explain why this project is proceeding before the Primary Urban Core Development Plan is revised as required by county ordinance. Shouldn't the City adopt a development plan before it decides on a BRT system which would impact and direct development in the urban core?
9. What approvals and permits will be required to (a) locate a power sub-station on Kapiolani Park; and (b) remove, relocate, or cut trees along Kapiolani Blvd. & University Ave., and in/around Kapiolani Park?
10. Are there any other transportation-related facilities, such as peripheral parking facilities, that will be required to implement the BRT alternative?

Thank you for the opportunity to submit our comments on the DEIS for the Primary Corridor Transportation Project. If you have any questions, please do not hesitate to contact either of us.

Sincerely,

CAROL FUKUNAGA
State Senator, 12th District

LES IHARA, JR.
State Senator, 10th District

cc: Parsons Brinckerhoff Quade and Douglas
Office of Environmental Quality Control

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05385R

November 13, 2002

The Honorable Carol Fukunaga
House of Representatives
State of Hawaii
State Capitol, Room 216
Honolulu, Hawaii 96813

Dear Representative Fukunaga:

Subject: Primary Corridor Transportation Project

This is in response to your November 6, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We support the Transportation Management System alternative, if it is recommended in the final EIS. We have not yet decided on our support of the Bus Rapid Transit alternative, because we believe more information is needed on this option.*

   Response: More information in response to specific questions in this letter is contained in the Response to Comments section and in other sections of the FEIS.

2. *If the BRT system is the option recommended, we believe that, besides more information, the public will need more discussion on the project's assumptions, strategies, and projections in order to accept city actions to implement the project.*

   Response: On November 29, 2000, the City Council adopted a resolution identifying the Bus Rapid Transit (BRT) Alternative as the Locally Preferred Alternative (LPA).

   To continue the public involvement commitment during the Primary Corridor Transportation Project Preliminary Engineering/Final Environmental Impact Statement (PE/FEIS) phase, community working groups were established by geographical areas (Pearl City/Aiea, Kalihi, Downtown/Kakaako, Mid-Town/University, and Waikiki) to provide input and feedback on the proposed BRT project to the technical staff. The working group members simultaneously received a greater in-depth understanding about BRT and what it means to the community. The working group format enabled community representatives to discuss specific issues and potential design solutions directly with the project's transportation and environmental planners. Working group members exchanged information on community needs and technical details of the BRT schemes. The project team then carried out additional studies and developed project refinements as a result of working group discussions.

In addition, the Oahu Trans 2K public workshops continue being held to inform the public about project refinements identified through the Working Group meetings. To keep the public informed since adoption of the LPA, two Progress Reports (newsletters) were published and distributed to over 10,000 recipients.

Even after the NEPA process has concluded and the Record of Decision (ROD) has been issued, public involvement will continue in many areas, such as planning, design and construction of transit centers, transit stops, joint development, streetscapes, landscaping, substation location and design studies, aesthetic design of vehicles, ITS and particulars of the ticketing system.

3. *Please provide more detailed information on BRT ridership projections, including underlying assumptions, breakdowns for peak traffic periods of the day, etc., for the Kapiolani Boulevard route segment.*

   Response: The travel forecasts for the Primary Corridor Transportation Project FEIS were developed using travel forecasting models developed for the Oahu Metropolitan Forecasting Model Development Project in April 1998. These procedures simulate the choices made by residents, business, and visitors regarding the nature, number, mode, time-of-day, and geographic orientation of trips that they make on a typical weekday. The procedures have been developed with data obtained in extensive surveys of Oahu households, transit riders, and air passengers. Future year forecasts reflect the population and employment forecasts that have been prepared by DBEDT and the zonal allocations that have been prepared by the City Department of Planning and Permitting.

   The travel forecasting methodology and resulting travel forecasts used for the Primary Corridor Transportation Project are described in the FEIS Chapter 4. The transportation plan for Oahu is described in the Oahu Metropolitan Planning Organization's report, Transportation for Oahu Plan TOP 2025.

   Section 4.4.2.3 of the FEIS presents the traffic analysis along the Kapiolani Boulevard route segment with the Refined LPA. The findings are that: 1) converting two lanes for exclusive BRT use will allow the BRT to operate through congested intersections with less delay; and 2) while there will be a drop in the level of service (LOS) for autos, Kapiolani Boulevard will still be operating acceptably for urban peak period conditions.

4. *Also, provide detailed information on vehicular traffic count projections on Kapiolani Boulevard, from South Street to University Avenue, after the BRT route has removed two lanes from vehicular use. We are concerned that removal of two traffic lanes on Kapiolani Blvd. may cause severe traffic congestion, especially for residents who live in this area.*

   Response: See response to comment #3.

5. *What are the assumptions, calculations, projections, etc. under the BRT option that are used to project a reduced traffic count along Kapiolani Boulevard, including peak traffic periods, since the traffic capacity is reduced by two lanes?*

   Response: See response to comment #3.

6. *Since vehicular ridership is reduced due to removal of two traffic lanes on Kapiolani Blvd., please provide information on the number of vehicular drivers and riders that will choose to use the BRT system, rather [than] their own vehicles, for their transportation needs. Also, provide information and assumptions to explain the behavior of vehicular drivers and riders in choosing the BRT over personal vehicles. Hes any studies (sic) been conducted or utilized on this subject?*

   Response: See response to comment #3.

7. *While a number of current vehicular riders may use the BRT system under certain conditions, many such riders will continue to use their vehicles for trips to destinations outside the BRT route and other short trips. What are the traffic count projections for these types of trips, and won't these trips still require travel along the congested Kapiolani Boulevard?*

   Response: The Refined LPA is part of a comprehensive approach to serving the travel desires within Honolulu. People will continue to use automobiles to travel even with the BRT system in place. BRT vehicles, along with limited stop buses, local buses, and circulator buses, will provide an alternative mode of travel for those who can take adventage of the service provided. The Refined LPA will provide a better level of transit service then the No-Build or TSM Alternatives.

   Automobiles that travel on Kapiolani Boulevard during the peak traffic periods are likely to experience more delay than with the No-Build and TSM Alternatives. That increased delay is offset by the greater number of people that can travel through the corridor during the same time period due to the enhanced level of transit service that the Refined LPA provides. These trips are included in the traffic analysis presented in Section 4.4.2.3 of the FEIS.

8. *Some Waikiki residents are concerned that the Waikiki spur does not include the Kalakaua Avenue section between the Kapiolani Blvd. & Kuhio Avenue junction. What combination bus/BRT route will be available for Waikiki residents living in Four Paddle condo, near Kuhio Ave. and Leuniu St., who want to go to the convention center or to the University of Hawaii? Also, what is the justification for designing the BRT routes so as to make it not useful for conventioneers to travel from their hotels to the convention center?*

   Response: Prior to selection of Kalakaua and Kuhio Avenues as the Refined Locally Preferred Alternative route in Waikiki, the City analyzed a variety of alternate routes including: (1) two-direction service on Kuhio; (2) a Kuhio-Ala Wai BRT couplet; (3) a Kalakaua-Ala Wai BRT couplet; and (4) turning back BRT service at or near Saratoga and Kalakaua. None of these alternatives provide as good a service to residents and employees in central Waikiki as the Refined LPA route. There will be City bus routes that connect Waikiki with the Convention Center and UH. The reason that the In-Town BRT does not connect Waikiki hotels and the Convention Center is that due to the surge nature of these trips they are best served by pre-arranged shuttles provided by the private sector.

9. *Waikiki businesses/hotels are concerned about the loss of another lane in Waikiki. Specifically what loading zones and driveways now used by businesses will be removed and/or blocked under the BRT option, and what mitigation measure will be taken for each?*

   Response: In the public outreach for the project, the City established a Working Group (WG) for the Waikiki area composed of representatives from the hotels, retail and service industries, commercial passenger and freight carriers, residents, government agencies, and other stakeholder groups. A detailed study of passenger and freight loading activities was performed

and reviewed with the Waikiki WG. Discussions with this Working Group led to revisions in the proposed project that resulted in no appreciable loss of on-street loading space along the streets affected by the BRT. This was achieved by allowing freight carriers to use the makai BRT shared lane on Kalakaua Avenue during legal delivery hours (10 P.M. to 9 A.M.); the BRT would simply pass around a stopped loading truck by using the adjacent traffic lane. On Kuhio Avenue, vehicle pullouts have been identified on each block face to serve passenger and freight loading on both sides of the street. Freight deliveries would be permitted just as today on Kuhio Avenue, between 10 P.M. and 7:30 A.M.

10. *Also, what are the contingency plans to mitigate unexpected problems, such [as] water main breaks on Kalakaua Ave?*

    Response: Both of the technologies being considered for the In-Town BRT permit the buses to deviate off of the designated route to go around problem locations such as a water main break.

11. *Please explain why this project is proceeding before the Primary Urban Core Development Plan is revised as required by county ordinance. Shouldn't the City adopt a development plan before it decides on a BRT system which would impact and direct development in the urban core?*

    Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

12. *What approvals and permits will be required to (a) locate a power sub-station on Kapiolani Park; and (b) remove, relocate, or cut trees along Kapiolani Blvd. and University Ave., and in/around Kapiolani Park?*

    Response: The traction power supply station previously planned for Kapiolani Park has been relocated to a site Ewa of Kapahulu Avenue along Kuhio Avenue. Therefore, no tree impacts will occur at Kapiolani Park.

    Regarding removing, relocating, or pruning trees, a certified arborist will oversee any work to be conducted on trees. Recent project planning has involved careful review of trees along the In-Town BRT alignment that may be adversely affected. Where possible, project designs have attempted to avoid trees. However, in some areas, namely on portions of Dillingham Boulevard, Kapiolani Boulevard, University Avenue, Saratoga Road, and Kalia Road in Waikiki, some trees will have to be replanted or removed to allow for necessary road widening. In the event that some larger trees cannot be successfully moved back, they will be replaced with smaller trees of the same species. No exceptional trees have been identified as being affected. Work on street trees will be coordinated with the Department of Parks and Recreation and an excavation permit will be necessary for replanting. No "exceptional" tree have been identified as being affected.

13. *Are there any other transportation-related facilities, such as peripheral parking facilities, that will be required to implement the BRT alternative?*

Response: All facilities required to implement the BRT are discussed in the FEIS.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05385R

November 13, 2002

The Honorable Les Ihara, Jr.
The Senate
State of Hawaii
State Capitol, Room 217
Honolulu, Hawaii 96813

Dear Senator Ihara:

Subject: Primary Corridor Transportation Project

This is in response to your November 6, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We support the Transportation Management System alternative, if it is recommended in the final EIS. We have not yet decided on our support of the Bus Rapid Transit alternative, because we believe more information is needed on this option.*

   Response: More information in response to specific questions in this letter is contained in the Response to Comments section and in other sections of the FEIS.

2. *If the BRT system is the option recommended, we believe that, besides more information, the public will need more discussion on the project's assumptions, strategies, and projections in order to accept city actions to implement the project.*

   Response: On November 29, 2000, the City Council adopted a resolution identifying the Bus Rapid Transit (BRT) Alternative as the Locally Preferred Alternative (LPA).

   To continue the public involvement commitment during the Primary Corridor Transportation Project Preliminary Engineering/Final Environmental Impact Statement (PE/FEIS) phase, community working groups were established by geographical areas (Pearl City/Aiea, Kalihi, Downtown/Kakaako, Mid-Town/University, and Waikiki) to provide input and feedback on the proposed BRT project to the technical staff. The working group members simultaneously received a greater in-depth understanding about BRT and what it means to the community. The working group format enabled community representatives to discuss specific issues and potential design solutions directly with the project's transportation and environmental planners. Working group members exchanged information on community needs and technical details of the BRT schemes. The project team then carried out additional studies and developed project refinements as a result of working group discussions.

In addition, the Oahu Trans 2K public workshops continue being held to inform the public about project refinements identified through the Working Group meetings. To keep the public informed since adoption of the LPA, two Progress Reports (newsletters) were published and distributed to over 10,000 recipients.

Even after the NEPA process has concluded and the Record of Decision (ROD) has been issued, public involvement will continue in many areas, such as planning, design and construction of transit centers, transit stops, joint development, streetscapes, landscaping, substation location and design studies, aesthetic design of vehicles, ITS and particulars of the ticketing system.

3. *Please provide more detailed information on BRT ridership projections, including underlying assumptions, breakdowns for peak traffic periods of the day, etc., for the Kapiolani Boulevard route segment.*

Response: The travel forecasts for the Primary Corridor Transportation Project FEIS were developed using travel forecasting models developed for the Oahu Metropolitan Forecasting Model Development Project in April 1998. These procedures simulate the choices made by residents, business, and visitors regarding the nature, number, mode, time-of-day, and geographic orientation of trips that they make on a typical weekday. The procedures have been developed with data obtained in extensive surveys of Oahu households, transit riders, and air passengers. Future year forecasts reflect the population and employment forecasts that have been prepared by DBEDT and the zonal allocations that have been prepared by the City Department of Planning and Permitting.

The travel forecasting methodology and resulting travel forecasts used for the Primary Corridor Transportation Project are described in the FEIS Chapter 4. The transportation plan for Oahu is described in the Oahu Metropolitan Planning Organization's report, Transportation for Oahu Plan TOP 2025.

Section 4.4.2.3 of the FEIS presents the traffic analysis along the Kapiolani Boulevard route segment with the Refined LPA. The findings are that: 1) converting two lanes for exclusive BRT use will allow the BRT to operate through congested intersections with less delay; and 2) while there will be a drop in the level of service (LOS) for autos, Kapiolani Boulevard will still be operating acceptably for urban peak period conditions.

4. *Also, provide detailed information on vehicular traffic count projections on Kapiolani Boulevard, from South Street to University Avenue, after the BRT route has removed two lanes from vehicular use. We are concerned that removal of two traffic lanes on Kapiolani Blvd. may cause severe traffic congestion, especially for residents who live in this area.*

Response: See response to comment #3.

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Response: The Refined LPA is part of a comprehensive approach to serving the travel desires within Honolulu. People will continue to use automobiles to travel even with the BRT system in place. BRT vehicles, along with limited stop buses, local buses, and circulator buses, will provide an alternative mode of travel for those who can take advantage of the service provided. The Refined LPA will provide a better level of transit service than the No-Build or TSM Alternatives.

Automobiles that travel on Kapiolani Boulevard during the peak traffic periods are likely to experience more delay than with the No-Build and TSM Alternatives. That increased delay is offset by the greater number of people that can travel through the corridor during the same time period due to the enhanced level of transit service that the Refined LPA provides. These trips are included in the traffic analysis presented in Section 4.4.2.3 of the FEIS.

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13. *Are there any other transportation-related facilities, such as peripheral parking facilities, that will be required to implement the BRT alternative?*

    Response: All facilities required to implement the BRT are discussed in the FEIS.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

ROBERT BUNDA
PRESIDENT
COLLEEN HANABUSA
VICE PRESIDENT
JONATHAN CHUN
CAL KAWAMOTO
MAJORITY LEADERS
J. KALANI ENGLISH
MAJORITY FLOOR LEADER
SAM SLOM
MINORITY LEADER
FRED HEMMINGS
MINORITY FLOOR LEADER
RON MENOR
MINORITY FLOOR LEADER

FIRST DISTRICT
LORRAINE R. INOUYE
SECOND DISTRICT
DAVID M. MATSUURA
THIRD DISTRICT
RUSSELL S. KOKUBUN
FOURTH DISTRICT
JAN YAGI RUBIN
FIFTH DISTRICT
J. KALANI ENGLISH
SIXTH DISTRICT
AVERY B. CHUMBLEY
SEVENTH DISTRICT
JONATHAN CHUN
EIGHTH DISTRICT
SAM SLOM
NINTH DISTRICT
MATT MATSUNAGA
TENTH DISTRICT
LES IHARA, JR.
ELEVENTH DISTRICT
BRIAN T. TANIGUCHI
TWELFTH DISTRICT
CAROL FUKUNAGA
THIRTEENTH DISTRICT
ROD TAM
FOURTEENTH DISTRICT
SUZANNE CHUN OAKLAND
FIFTEENTH DISTRICT
DONNA MERCADO KIM
SIXTEENTH DISTRICT
NORMAN SAKAMOTO
SEVENTEENTH DISTRICT
KAY C. IGE
EIGHTEENTH DISTRICT
RON MENOR
NINETEENTH DISTRICT
CAL KAWAMOTO
TWENTIETH DISTRICT
BRIAN KANNO
TWENTY-FIRST DISTRICT
COLLEEN HANABUSA
TWENTY-SECOND DISTRICT
ROBERT BUNDA
TWENTY-THIRD DISTRICT
BOB NAKATA
TWENTY-FOURTH DISTRICT
RAY HIRONO
TWENTY-FIFTH DISTRICT
PAUL K. KAWAKAMI

CHIEF CLERK
PAUL T. KAWAGUCHI

The Senate
The Twenty-First Legislature
of the
State of Hawaii

STATE CAPITOL
HONOLULU, HAWAII 96813

April 8, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor

RE: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Ms. Soon,

I continue to have concerns over the impact along the Dillingham Boulevard section of the proposal for BRT.

If the assumption is that autos and other vehicles will use arteries other than Dillingham, we need to clearly address the impacts along those corridors and provide mitigation measures along alternative routes as well.

Sincerely,

Norman Sakamoto

Norman Sakamoto
Senator, 16th district

Cc: Genevieve Salmonson

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01574R

November 13, 2002

The Honorable Norman Sakamoto
The Senate
State of Hawaii
State Capitol, Room 213
Honolulu, Hawaii 96813

Dear Senator Sakamoto:

Subject: Primary Corridor Transportation Project

This is in response to your letter dated April 8, 2002 regarding comments on the the Supplemental Draft Environmental Impact Statement (SDEIS). Your letter provided us with the following comment:

I continue to have concerns over the impact along the Dillingham Boulevard section of the proposal for BRT.

If the assumption is that autos and other vehicles will use arteries other then Dillingham, we need to clearly address the impacts along those corridors and provide mitigation measures along alternative routes as well.

Response: In response to comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS), a series of working group meetings was held with business owners, property owners, community representatives, government agencies, and other stakeholders. This working group reviewed concerns expressed regarding the BRT Alternative discussed in the MIS/DEIS and made suggestions to improve it. The suggestions of the working group have been incorporated into the Refined Locally Preferred Alternative (LPA).

Section 4.4.2-1) of the Final Environmental Impact Statement (FEIS) addresses projected Year 2025 access and traffic conditions on Dillingham Boulevard based on the revised configuration that came out of the working group process. Table 4.4-3 in the FEIS summarizes the differences in distribution of traffic volumes along parallel roadway facilities and the resulting volume/capacity (V/C) ratios between the No-Build Alternative, TSM Alternative and Refined LPA. Table 4.4-3 also shows that the Refined LPA is projected to have a beneficial effect on the Kapalama screenline through a reduction in auto traffic by attracting more trips to transit. The Refined LPA will result in almost 3,000 fewer vehicle trips in the peak direction during the A.M. peak hour than the No-Build Alternative and almost 2,000 fewer vehicle trips than the TSM Alternative during the same period. It is anticipated that for all alternatives, all roadways that make-up the Kapalama screenline will be at or above capacity. However, because of the reduction in auto travel with the Refined LPA, even with one lane in each direction converted to exclusive transit use, Dillingham Boulevard will be able to maintain a V/C ratio of 1.00 with one less lane in each direction than in the No-Build and TSM Alternatives, and still result in lower V/C ratios on Nimitz Highway and the H-1 Freeway.

A copy of the FEIS will be sent to you under separate cover. We appreciate your interest in this important transportation project.

Sincerely,

CHERYL D. SOON
Director

HOUSE OF REPRESENTATIVES
STATE OF HAWAII
STATE CAPITOL
HONOLULU, HAWAII 96813

April 20, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, HI 96813

RE: OPPOSITION TO BUS RAPID TRANSIT (BRT) SYSTEM

Dear Ms. Soon,

I submit this testimony to express my strong opposition to the proposed Bus Rapid Transit system.

Removing traffic lanes for the BRT will negatively impact our already crowded roadways and make traffic worse, not better. Traffic is a major problem for Oahu, but the BRT is not the solution. Moreover, I am concerned about the likelihood of increasing taxes for this proposed $1+ billion project. Finally, a major change in commuter behavior to use the buses instead of cars, is needed to make the BRT work. I do not believe Hawaii commuters will make such a dramatic change in driving behavior.

Thank you for your time and please do not hesitate to contact me if you have any questions, comments or concerns.

Aloha,

Charles K. Djou
House Minority Floor Leader
Representative

CC: Ms. Genevieve Salmonson, Director, Office of Environmental Quality Control

Representative Charles K. Djou
House Minority Floor Leader
47th District (Kaneohe/Kahalu'u)
State Capitol, Room 313
Honolulu, Hawaii 96813
Phone: (808) 586-6490 - Fax: (808) 586-6491
Email: repdjou@capitol.hawaii.gov - Web: www.capitol.hawaii.gov

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

April 18, 2002

The Honorable Charles K. Djou
Representative
House of Representatives
State Capitol, Room 313
Honolulu, Hawaii 96813

Dear Representative Djou:

We have received your testimony and it will be entered into the record.

However, we request the opportunity to brief you on the project as based on your public statements you appear to have several misunderstandings.

Please call me at 523-4125 to schedule a meeting and if you have any questions.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01495R

November 13, 2002

The Honorable Charles K. Djou
House of Representatives
State of Hawaii
State Capitol, Room 313
Honolulu, Hawaii 96813

Dear Representative Djou:

Subject: Primary Corridor Transportation Project

This is in response to your April 20, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS). We are responding to your the SDEIS.

1. *Removing traffic lanes for the BRT will negatively impact our already crowded roadways and make traffic worse, not better. Traffic is a major problem for Oahu, but the BRT is not the solution.*

   Response: It is not the conversion of lanes that will create the congestion, the congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

2. *Moreover, I am concerned about the likelihood of increasing taxes for this proposed $1+ billion project.*

   Response: This project has been developed following City Council policy to not increase taxes. The financial analysis (Chapter 6 of the Final Environmental Impact Statement (FEIS)) shows that no increases in existing taxes or new taxes will be required to fund the project as proposed.

3. *Finally, a major change in commuter behavior to use the buses instead of cars, is needed to make the BRT work. I do not believe Hawaii commuters will make such a dramatic change in driving behavior.*

   Response: A major change in commuter behavior is not necessary for the Refined LPA to be successful. The shift in mode forecast from auto to transit is 1.3% for all trip purposes and 3.7% for work trips.

We will send you a CD-ROM copy of the FEIS under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

The Honorable Galen Fox
House of Representatives
State of Hawaii
Hawaii State Capitol, Room 319
Honolulu, Hawaii 96813

Dear Representative Fox:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *Thank you for permitting me to comment on the BRT alignment. It runs through the district I represent in the State House. On behalf of the community I represent, I wish to register my opposition in the strongest possible terms to the use of, quote, "exclusive and semi-exclusive bus-only lanes," end quotes, on Ward Avenue, on Queen Street, Ala Moana Boulevard, Kalia Road, Kalakaua Avenue, and Kuhio Avenue, where creation of exclusive and semi-exclusive bus-only lanes results in one less lane of traffic available for privately-operated vehicles.*

   Response: Comment noted.

2. *All these streets -- Ward Avenue, on Queen Street, Ala Moana Boulevard, Kalia Road, Kalakaua Avenue, and Kuhio Avenue -- are either currently congested for much of the day or will be once a lane of traffic is denied to the users of these streets.*

   Response: The BRT will operate in mixed traffic on Ward Avenue and Queen Street, not in exclusive or semi-exclusive lanes. Kalia Road and Ala Moana Boulevard between the Ala Wai Bridge and Kalia Road will be widened to accommodate two additional lanes for the BRT and other buses. On the remainder of Ala Moana Boulevard in your District as well as on Kalakaua and Kuhio Avenues where they have priority transit lanes, the BRT will share those lanes with private buses and right turning vehicles. With regard to congestion, because enough people will be diverted out of their cars onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives, and conditions will be much better for BRT riders since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

3. *My understanding is that denying cars and other privately-operated vehicles use of a lane on these streets is part of a purposeful design to create such traffic jams, such havoc, such chaos, that people forced into the remaining lanes will be compelled to shift to public transportation. Please consider that such urban planning may be contrary to the best interest of the people you purport to serve.*

Response: As the MIS/DEIS, SDEIS, and FEIS Chapter 1, Purpose and Need state, the project purpose is to increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile; support desired development patterns, improve the transportation linkage between Kapolei and Honolulu's Urban Core; and improve the transportation linkages between communities in the Primary Urban Center to increase the attractiveness of in-town living.

4. *I held a community meeting devoted to the subject of exclusive and semi-exclusive bus-only lanes. The City refused to participate, though I made several attempts to attract their cooperation. The meeting was packed. We had to shift to a larger room, with over 150 people who were upset and alarmed about the loss of traffic lanes to exclusive and semi-exclusive bus-only lanes. Believe me, we have lots and lots of very upset people in my area who think the BRT plan is just crazy.*

   Response: When you contacted the City to attend, you indicated in your oral invitation that the meeting was to be a staged event. We did not feel it was appropriate to attend.

   We have been told by others that many in the audience were led to believe the meeting topics were the Hilton development project and the Ala Wai Boat Harbor. Under the circumstances, conclusions regarding BRT would be spurious at best.

   To reiterate, there will be no loss of traffic lanes on Ala Moana Boulevard, which is where most of the attendees reside.

5. *Now, in the paper this morning, we have a picture that apparently was supplied by the City, showing exclusive lanes in this proposal. There is no marking of semi-exclusive lanes. I think you ought to make really clear what the difference between semi-exclusive and exclusive lanes are. To me, they are basically lanes that are denied to privately-operated vehicles. And it's very important.*

   Response: As defined in the FEIS, exclusive lanes are for the exclusive use of transit vehicles. Exclusive lanes are typically in the street median, or when at curbside they are running contra-flow.

   Semi-exclusive lanes refer to lanes restricted to use by BRT and other buses for through travel, as well as any for the use by other vehicles when turning right at an intersection or when entering or exiting a driveway. In Waikiki the semi-exclusive lanes will be shared with private buses and trolleys.

6. *In this article in the paper, Cheryl Soon, the Director of Transportation Services, is quoted as saying, "There is just no more room for cars. We've got to find alternatives." That's just the point. There's no room for cars. Why are you giving us less room for cars?*

   Response: Since there is not enough room for extensive widening of streets and highways, the objective has been to make more efficient use of the space available by maximizing the number of people accommodated, not the number of vehicles.

7. *In the same article, an unidentified City engineer is purported as saying that, "If you go past Ward Avenue to Waikiki, there are 22 lanes of traffic. We're going to reserve just one of those lanes for buses." That's completely inaccurate. It's not one. It's four. Four out of 22. And that makes a big difference. That's a 750 percent error or a 3,000 percent error, depending on how you do your math.*

   Response: At the Ward Avenue screenline there are 44 travel lanes when both directions are included. Of these one is an exclusive BRT lane and three are semi-exclusive lanes shared by the BRT, local buses, and right-turning autos.

8. *Finally, there's the quote from the Director of Transportation Services, "I'm not going to be swayed now by a lot of Johnny-come-lately's who are raising questions for only political reasons." This somehow contrasts with the quote of the Mayor, who says, "Thanks to the time and effort of community representatives, the City is going to be able to build a better transit system."*

   Response: Comment noted.

9. *The trouble is, this issue has not been brought to the people in the area that live in this neighborhood until now, till after the City Council has already approved this system.*

   Response: The Primary Corridor Transportation Project team members have attended hundreds of meetings where the project has been discussed and presented project information. Six working groups were formed, in the communities along the alignment, to present the project. The community outreach effort resulted in over ten project refinements.

10. *You're going for the funding of a system that apparently is going to start in Waikiki, when it makes more sense to start the system completely at the end where people are really suffering. They need to get into town, and there's no controversy about it. Let's reverse the process. Let's start out in the countryside.*

    Response: Timing and implementation of the P.M. zipper lane and related Regional BRT improvements must be coordinated with the State DOT. SDOT wants to widen the H-1 Freeway in the areas where the P.M. zipper lane is proposed before installing the zipper lane. Since the Iwilei-Waikiki segment of the In-Town BRT can be a viable improvement to the transit system immediately, the City Council has elected to proceed with this segment as the first step in phasing of the BRT system.

11. *Let's have good hearings here, and let's have you guys explain why semi-exclusive and exclusive lanes are good for the people of Waikiki and this neighborhood.*

    Response: Priority lanes for buses will permit a way around the traffic congestion that will occur by 2025. The priority lanes will afford the faster speeds and greater reliability needed to attract people out of their autos. By so doing a greater number of people can be served without having to widen or double-deck the City's streets and highways.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

The Honorable Darrlyn Bunda
Member, City Council
City and County of Honolulu
Honolulu, Hawaii 96813

Dear Councilmember Bunda:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 19, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I'm a resident of Mililani and speaking in support of the BRT Alternative.*
2. *Now is the time for significant major investment in our transit system. It's more then just adding buses. We've got to go beyond band-aid solutions. It doesn't make any sense to have more buses if they're all stuck in traffic and they can't move about. People will not choose to use buses that way. It's not about getting people out of cars. It's about transportation choices. So people can choose to drive. They can choose to use the bus. They can choose to car pool or van pool. But the BRT will add to a complete more efficient TSM package.*
3. *The priority and dedicated transit lanesage will provide the reliability and the dependability that we need to make transit a good choice. It will also edd to the improve linkage and accessibility to make destinations such as University of Hawaii, Waikiki. The growth of Kapolei is another urban center. All told, I'm for the BRT Alternative.*

We appreciate you taking the time to attend the hearing and for supporting the BRT Alternative.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

FORWARDED:

BENJAMIN B. LEE, FAIA
Managing Director

Sincerely,

CHERYL D. SOON
Director

CITY COUNCIL

CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII 96813-3065 / TELEPHONE 547-7000

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November 6, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Re: Comments Relating to the Major Investment Study and Draft Environmental Impact Statement for the Primary Corridor Transportation Project

I am taking this opportunity to share with you my comments and the concerns of the community I represent regarding the above-referenced project.

For many years, neighborhoods in Kalihi, Salt Lake and Moanalua have endured residents of other communities parking in their neighborhoods only to hop on a bus to downtown. Not only does this practice compete for already limited on-street parking, but the traffic impacts in the Primary Urban Center are further exasperated by the additional vehicles.

With the understanding that park-and-ride facilities now exist in Hawaii Kai and Kunia, it is my contention that, if more park-and-ride were conveniently located in the City of Kapolei, Mililani, Wahiawa, Kaneohe and Kailua, residents would have a greater incentive to leave their cars in their own neighborhoods. Then, they will commute to Downtown Honolulu on the City's reconfigured hub-and-spoke network system, as well as the proposed Bus Rapid Transit system. There is a need to re-analyze and make more attractive the basic prerequisite that residents in outlying areas should utilize facilities like a park-and-ride in order to effectively reduce traffic on our freeways. If this is achieved, the high cost of providing parking and the necessary infrastructure can be avoided.

It is my further contention that providing for additional parking in the Primary Urban Center will be contrary to the City's goal to minimize the current traffic gridlock because residents will not be encouraged to take alternative transportation from a destination point in their own

neighborhoods in Leeward and Central Oahu. Unless the availability of parking is reduced in the Primary Urban Center, there is no incentive for our commuters to get out of their cars and thereby reduce traffic through the major bottlenecks on the major thoroughfares.

Thank you for this opportunity to share with you the concerns of my constituents. I look forward to working with you in the future in order to address the transportation needs of Honolulu. My warmest mahalo and aloha.

Very truly yours,

ROMY M. CACHOLA
Councilmember
Council District VII

CITY COUNCIL
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DTS
TRANS PLANNING

May 7, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Re: Comments Relating to the Primary Corridor Transportation Project, Supplemental Draft Environmental Impact Statement (SDEIS)

Thank you for this opportunity to submit comments on the aforementioned project on behalf of residents in my district.

In addition to my previous letter dated November 6, 2000, which was not included in the original comments for the SDEIS, I wish to highlight three major areas of concern:

1. The Luapele Drive Ramp to H-1.
2. Middle Street Transit Center.
3. Dedicated Use of Lanes Along Dillingham Boulevard for the Bus Rapid Transit (BRT).

The following pages elaborates my concerns relating to the above-referenced areas. Italicized sections, in particular, raise questions or ask for clarification and/or discussion of certain issues.

LUAPELE DRIVE RAMP TO H-1

Residents in the Salt Lake, Foster Village and surrounding communities are very much against this proposal due to lack of input from community associations, neighborhood boards and other affected parties. They are also concerned with the level of noise, impact of traffic along Salt Lake Boulevard and Kamehameha Highway, and other possible negative impacts resulting from the Luapele Drive Ramp. The existing egress and ingress to the Aloha Stadium parking lot from

opposite sides is sufficient without having to incur additional expenses in the development of the Luapele Drive ramp. Moreover, a working group of residents from Salt Lake and Foster Village was never formed to discuss the Luapele Ramp, which was a recommendation from a working group comprised of residents from Aiea and Pearl City. This working group was successful in deleting the Kaonohi Street ramp and the Kamehameha Drive-In Transit Center in favor of the Luapele Ramp and expansion of the Stadium Transit Center. If a viable push for the Luapele Drive ramp continues, then residents in neighboring affected communities should be afforded the courtesy of establishing working groups and the opportunity to discuss the Luapele proposal.

The following sections highlight concerns over noise, traffic and other negative impacts of the proposed Luapele Drive ramp.

A. Noise

The noise impact of the Luapele Drive ramp is based on the projected noise exposure of an unidentified single-family home located at Luaole Place. The Luapele Drive ramp is projected to have in 2025 no noise impact on the home as measured according to Federal Transit Administration criteria.

(A) *Please identify the location of the home.*

(B) The discussion of noise impacts implies that the analysis was based on hybrid diesel/electric bus noise. *Please clarify whether the noise analysis for the Luapele Drive ramp was based on hybrid or regular diesel bus noise. If the analysis was based on hybrid bus noise, the noise impact from regular diesel buses also should be discussed, at least for information in case the City acts slowly in procuring hybrid buses.*

No discussion is provided on the noise impact on residences and businesses adjacent to Salt Lake Boulevard between Luapele Drive and the Aloha Stadium Transit Center. That section of Salt Lake Boulevard probably will experience additional bus trips. *Please address the possible noise impact on such residences and businesses.*

B. Traffic

The table below lists the projected levels of service at intersections near the Luapele Drive ramp for all Alternatives during the A.M. and P.M. peak hours in 2025. The source of the data is Table 4.2-7 on page 4-19 of the SDEIS.

PROJECTED A.M. AND P.M. PEAK HOUR LEVELS OF SERVICE AT INTERSECTIONS NEAR LUAPELE DRIVE RAMP (In 2025)

		No-Build		TSM		Refined BRT	
		Auto	Transit	Auto	Transit	Auto	Transit
Luapele/Salt Lake	A.M.	C	C	C	C	C	C
	P.M.	D	C	D	C	C	C
Kahuapaani/Salt Lake	A.M.	D	D	D	D	D	D
	P.M.	F	D	F	D	E	D

Two questions arise from the data:

(A) *Why are the levels of service under the Refined BRT Alternative the same as or better than the levels under the No-Build Alternative and TSM Alternative?* Both the No-Build Alternative and TSM Alternative do not have the Luapele Drive ramp. Consequently, those Alternatives should not have the associated bus and high occupancy vehicle traffic projected under the Refined BRT Alternative.

(B) *Why are there differences between the levels of service for auto and transit?* Autos and buses will operate in mixed traffic lanes. Logically then, buses should not have an advantage over autos.

Please provide responses to these questions.

Bus Trips

Approximately 20 buses in each direction are projected as running through the Luapele Drive ramp apparently during the peak hour in 2025.

For the former Kaonohi ramp, some express buses from Leeward and Central Oahu traveling town-bound in the A.M. peak period were to exit the zipper lane at that ramp, access the former Pearlridge transit center, and then re-enter the zipper lane. The reverse movement was to occur in the P.M. peak period. *Please provide a discussion of whether the express buses will use the Luapele Drive ramp in the same manner.*

Table 3.1-3 of the Draft Technical Memorandum On Estimated Operating And Maintenance Costs, Draft Product 7-20, dated August 1999, lists the different bus routes for the original BRT Alternative. *Please provide a similar table for the Refined BRT Alternative so that the layperson may better understand the planned bus movements for the Luapele Drive ramp.*

Aloha Stadium Transit Center

In addition, neither the SDEIS or the MIS/DEIS discusses the impact of the Aloha Stadium transit center/ park-and-ride facility on traffic at the adjacent intersection. No level of service analysis is provided for the Kamehameha Highway/ Salt Lake Boulevard intersection, although

logic dictates that more buses and autos will use the transit center/ park-and-ride facility than under the No-Build or TSM Alternative.

Also, neither the SDEIS or the MIS/DEIS discusses the noise impact of the Aloha Stadium transit center/ park-and-ride facility. *Please address the noise impact of the Aloha Stadium transit facility on the nearby Halawa Valley and Makalapa Manor residential communities.*

C. Other Concerns

1. **Widening** — Despite plans to widen the H-1 freeway near the Luapele Drive ramp, the SDEIS is silent on the necessity for acquiring property for the widening. *Please include a statement on whether property will have to be acquired for the widening. If acquisition is necessary, please identify the property.*

2. **Military Property** — The Luapele Drive ramp is also near military property in Makalapa. *Please address whether the ramp will impact military property.*

3. **Profile Sketches** — The profiles of the Luapele Drive ramp in appendix B of the SDEIS do not clearly show where and how the ramp will rise from Luapele Drive to the H-1 freeway. *Please provide profile sketches from different ground level views that are understandable by the layperson.*

MIDDLE STREET TRANSIT CENTER

As we discussed in an earlier meeting, I am against purchasing private property on the Ewa side of the OCCC, specifically the Gaspro site on the makai end of Dillingham Boulevard, for the Kalihi Kai Transfer Center. The most optimal and cost effective solution for an in-town BRT would be to consolidate all operations at the Middle Street Transit Center.

A major concern of the Middle Street facility is some business displacements, perhaps up to a maximum of 17 businesses as a result of expanding the Middle Street Transit Center and extending Kaaahi St. for the Iwilei Transit Center. Neither the SDEIS nor MIS/DEIS, however, identifies the businesses to be displaced or the property to be taken. Nor does either document break down the number of displacements between the Middle Street facility and Iwilei Transit Center.

Please provide a list of the businesses to be displaced by the Middle Street facility expansion. The list also should include businesses to be partially displaced, if any, by the Middle Street expansion.

DILLINGHAM BOULEVARD IN-TOWN BRT ALIGNMENT

Some members of the public have expressed concerns about having only one general-purpose lane in each direction on Dillingham Boulevard. The limited number of general-purpose lanes is the result of the dedication of the median lanes exclusively for In-Town BRT vehicles.

Transit Travel Time

Despite the exclusive lanes, the transit travel time between Downtown and Kalihi of an In-Town vehicle is not substantially less than the bus travel times under the No-Build and TSM Alternatives. Neither of those Alternatives includes special treatment for buses on Dillingham Boulevard. The following presents "composite" peak period travel time data[1] from table 4.1-6 on page 4-7 of the SDEIS. The "Downtown" location is the "Fort Street Mall between Hotel & King" and the "Kalihi" location is the area bounded by "Waikamilo/Kalihi/Dillingham/McNeill [sic]."[2]

DOWNTOWN TO KALIHI
IN-VEHICLE TRANSIT "COMPOSITE" PEAK PERIOD TRAVEL TIME
(In 2025)

	No-Build	TSM	Refined BRT
Downtown To Kalihi	7.9 minutes	6.8 minutes	5.1 minutes

The differences in travel times among the Alternatives are not major. An In-Town BRT vehicle in the exclusive lane is projected to be faster by about 1.7 minutes than a bus in a general-purpose lane under the TSM Alternative. Compared to the No-Build Alternative, the In-Town BRT vehicle is projected to be faster by 2.8 minutes.

A statement in the SDEIS suggests that a relatively small difference in travel time may not have a significant effect. "Based on past model results, a two- to five-minute increase in travel time should not have a significant effect on transit ridership." See the second full paragraph on page 4-3 of the SDEIS.

(A) *Please provide a discussion on whether the costs of construction and operation of the exclusive lanes on Dillingham Boulevard are worth the travel time savings between Kalihi and Downtown.*

(B) *Additionally, please provide the travel time for an In-Town BRT vehicle assumed to be operating in a general-purpose lane in the same manner as a bus under the No-Build and TSM Alternatives.* Under the scenario, two general-purpose lanes in each direction on Dillingham Boulevard should be assumed. The information is intended to reveal the extent of the advantage of the exclusive lanes over general-purpose lanes.

(C) *The auto travel time between comparable points of the "Downtown to Kalihi" trip by the fastest route should be provided for each Alternative.*

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[1] The SDEIS does not explain why "composite" travel time is used or how "composite" travel time is determined.

[2] See the response to question (25)(B) on page 17 of Communication D-840 2000).

Widening Impact
In response to concerns about potential motorist delays from only one 14-foot general purpose lane in each direction, the Kalihi Working Group has recommended the widening of each lane to 18 feet between Laumaka Street and Waiakamilo Road. Sidewalk widening and additions also are planned.

The SDEIS is silent regarding any other possible negative impact from the widening of Dillingham Boulevard or addition of new sidewalks. It does not expressly indicate whether any private or other property must be acquired for the widening or new sidewalks or whether abutting property will be affected in any other manner.

Please provide a narrative describing or map depicting the following: (1) the specific Dillingham Boulevard sections to be widened for general-purpose lanes, sidewalks, or both and (2) the specific sections of Dillingham Boulevard where new sidewalks will be added.

One impact presumably from the widening are some driveway impacts and the loss of one or two parking stalls for Kapalama Makai, an apartment complex on the corner of Dillingham Boulevard and McNeill Street. *Please discuss any mitigation measure for Kapalama Makai.*

Noise Impacts
Moderate noise impacts are expected at only one location along the Dillingham Boulevard alignment, the Bishop Garden Apartments. The impact is projected with the hybrid diesel/electric vehicles, but not the embedded plate propelled vehicles. The Bishop Garden Apartments is near the Dillingham Boulevard/ Waiakamilo Road intersection. Notwithstanding the impact, noise mitigation is not deemed to be feasible and not planned to be included as part of the Refined BRT Alternative.

An explanation should be provided on the reason noise mitigation for the Bishop Garden Apartments is not feasible. The explanation should address whether the construction of sound walls at the front property line of the Apartments was considered as a mitigating measure.

In closing, please include my letter dated November 6, 2000, a copy of which is attached, along with the above-discussed comments for the SDEIS. I hope the concerns I have expressed will receive your favorable consideration. On behalf of my constituents, I would like to thank you for the opportunity to express my concerns on his very important transportation project for Oahu.

Very truly yours,

Romy

ROMY M. CACHOLA
Councilmember
Council District VII

cc: Gov. Benjamin Cayetano

Neighborhood Board No. 15
Neighborhood Board No. 18
Neighborhood Board No. 20
Foster Village Community Association
Halawa Valley Estates
Oahu Metropolitan Planning Organization (OMPO)
Kalihi Business Association (KBA)

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD5/02-01842R
TPD11/00-05419R

The Honorable Romy M. Cachola
Member, City Council
City and County of Honolulu
Honolulu, Hawaii 96813

Dear Councilmember Cachola:

Subject: Primary Corridor Transportation Project

This is in response to your comments regarding the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your November 6, 2000 letter regarding the MIS/DEIS and Part B responds to your May 7, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *With the understanding that park-and-ride facilities now exist in Hawaii Kai and Kunia, it is my contention that, if more park-and-ride were conveniently located in the City of Kapolei, Mililani, Wahiawa, Kaneohe and Kailua, residents would have a greater incentive to leave their cars in their own neighborhoods. Then, they will commute to Downtown Honolulu on the City's reconfigured hub-and-spoke network system, as well as the proposed Bus Rapid Transit system.*

   Response: We agree. This is consistent with what is proposed in the Refined LPA. In addition, there will be a park-and-ride at Aloha Stadium.

2. *There is a need to re-analyze and make more attractive the basic prerequisite that residents in outlying areas should utilize facilities like a park-and-ride in order to effectively reduce traffic on our freeways. If this is achieved, the high cost of providing parking and the necessary infrastructure can be avoided.*

   Response: We agree. This is consistent with the goal of the Primary Corridor Transportation Project. The park-and-ride lots would work together with the Regional BRT and In-Town BRT to reduce parking needs and roadway infrastructure costs.

3. *It is my further contention that providing for additional parking in the Primary Urban Center will be contrary to the City's goal to minimize the current traffic gridlock because residents will not be encouraged to take alternative transportation from a destination point in their own neighborhoods in Leeward and Central Oahu. Unless the availability of parking is reduced in the Primary Urban Center, there is no incentive for our commuters to get out of their cars and thereby reduce traffic through the major bottlenecks on the major thoroughfares.*

   Response: The Refined LPA does not include additional parking to be provided in the Primary Urban Center other than at transit centers as specifically identified in Chapter 2, Tables 2.2-2, 2.2-3, and 2.2-5 of the FEIS.

Part B – SDEIS Comments

4. *In addition to my previous letter dated November 6, 2000, which was not included in the original comments for the SDEIS, I wish to highlight three major areas of concern:*
   1. *The Luapele Drive Ramp to H-1*
   2. *Middle Street Transit Center*
   3. *Dedicated Use of Lanes Along Dillingham Boulevard for the Bus Rapid Transit (BRT)*

   Response: Your November 6, 2000 letter was received. The letter was in response to the MIS/DEIS and is included in the FEIS along with your May 8, 2002 letter. Responses to your comments regarding the Luapele Drive ramp, the Middle Street Transit Center, and dedicated lanes along Dillingham Boulevard are included in the Final Environmental Impact Statement (FEIS).

5. *Residents in the Salt lake, Foster Village and surrounding communities are very much against this proposal due to lack of input from community associations, neighborhood boards and other affected parties.*

   Response: We thank you for helping to facilitate meetings to address community concerns. Based on a presentation to the Aliamanu/Salt Lake Neighborhood Board in June 2002 and a subsequent meeting with the Aliamanu/Salt Lake/Foster Village Working Group formed at your request, we believe the residents of the surrounding communities now better understand what is being proposed and are not opposed to the project as reflected in the Refined LPA. We will continue discussions and communication with the community members throughout project design and implementation.

6. *They are also concerned with the level of noise, impact of traffic along Salt Lake Boulevard and Kamehameha Highway, and other possible negative impacts resulting from the Luapele Drive Ramp.*

   Response: The noise (FEIS Section 5.6) and traffic effects (Chapter 4.0) associated with the Luapele Drive ramp are included in the FEIS.

7. *The existing egress and ingress to the Aloha Stadium parking lot from opposite sides is sufficient without having to incur additional expenses in the development of the Luapele Drive ramp.*

   Response: The Aloha Stadium overflow parking area does not have direct access to H-1. The purpose of the Luapele Drive ramp is to provide direct access to the H-1 zipper lanes for Regional BRT buses. Access to the zipper lane from this area would not be possible without the Luapele Drive ramp.

8. *Moreover, a working group of residents from Salt Lake and Foster Village was never formed to discuss the Luapele Ramp, which was a recommendation from a working group comprised of residents from Aiea and Pearl City. This working group was successful in deleting the Kaonohi Street ramp and the Kamehameha Drive-In Transit Center in favor of the Luapele Ramp and*

expansion of the Stadium Transit Center. If a viable push for the Luapele Drive ramp continues, then residents in neighboring affected communities should be afforded the courtesy of establishing working groups and the opportunity to discuss the Luapele proposal.

Response: A Salt Lake/Foster Village Working Group was formed and their first meeting was July 24, 2002. We thank you for your assistance in this area and will continue to work with the community throughout design and project implementation.

9. *The noise impact of the Luapele Drive ramp is based on the projected noise exposure of an unidentified single-family home located at Luaole Place. The Luapele Drive ramp is projected to have in 2025 no noise impact on the home as measured according to Federal Transit Administration criteria.*

   A. Please identify the location of the home.

   B. The discussion of noise impacts implies that the analysis was based on hybrid diesel/electric bus noise. Please clarify whether the noise analysis for the Luapele Drive ramp was based on hybrid or regular diesel bus noise. If the analysis was based on hybrid bus noise, the noise impact from regular diesel buses also should be discussed, at least for information in case the City acts slowly in procuring hybrid buses.

   No discussion is provided on the noise impact of residences and businesses adjacent to Salt Lake Boulevard between Luapele Drive and the Aloha Stadium Transit Center. That section of Salt Lake Boulevard probably will experience additional bus trips. Please address the possible noise impact on such residences and businesses.

   Response:

   A. The single family home (SFR) where the measurement was taken is located on Luaole Street, closest to H-1. The address of the home is 4509 Luaole Place.

   B. The Luapele ramp noise impact discussion in the SDEIS was based on both hybrid diesel/electric bus and on wayside-powered electric bus. The first number under the "Project Generated Noise" column represents the hybrid diesel/electric bus, and the second number in the column represents the wayside powered electric bus. See Table 5.6-2, Notes 2 and 3.

   A diesel bus will generate approximately 5 to 7 dB higher noise levels than a hybrid. At Site 18, the single-family residence on Luaole Place, the estimated noise levels with diesel bus vehicles would be an Ldn of 63 dBA, which will not result in a noise impact.

   The operations of a transit center and its potential noise impact on the nearby Halawa Valley and Makalapa residential communities have been assessed. The noise sources associated with the Aloha Stadium Transit Center: (1) on-site BRT vehicles idling within the Transit Center; and (2) the off-site movement of BRT vehicles and autos traveling to the Transit Center are included in the assessment. Twenty-four hour noise measurements were conducted at the nearest residential receiver to the transit center to determine the existing noise levels. To determine potential impact, the noise levels of the transit center operations were compared to the existing noise levels using the FTA Noise Impact Criteria. The results of the analysis are presented in the FEIS, Section 5.6.

10. *The table below lists the projected levels of service at intersections near the Luapele Drive ramp for all alternatives during the a.m. and p.m. peak hours in 2025. [The table referenced is Table 4.2-7 on page 4-19 of the SDEIS]. Two questions arise from the data:*

    A. Why are the levels of service under the Refined BRT Alternative the same as or better than the levels under the No-Build Alternative and TSM Alternative? Both the No-Build Alternative and TSM Alternative do not have the Luapele Drive ramp. Consequently, those Alternatives should not have the associated bus and high occupancy vehicle traffic projected under the Refined BRT Alternative.

    B. Why are there differences between the levels of service of auto and transit? Autos and buses will operate in mixed traffic lanes. Logically then, buses should not have an advantage over autos.

    Response:

    A. The Luapele Drive ramp to the H-1 will only be utilized by regional BRT vehicles and would not be open to private vehicles. Auto LOS at the Salt Lake Boulevard/Kahuapaani Street intersection is projected to be better in the Refined LPA because it includes geometric enhancements at this intersection.

    B. LOS of private vehicles at an intersection is a weighted average of all lanes and movements associated with an approach. For transit LOS, only the specific lane and approach that the BRT would travel on is considered for the LOS. Note that no change in transit LOS is projected between the three Alternatives.

11. *Approximately 20 buses in each direction are projected as running through the Luapele Drive ramp during the peak hour in 2025.*

    For the former Kaonohi ramp, some express buses from Leeward and Central Oahu traveling town-bound in the a.m. peak period were to exit the zipper lane at the ramp, access the former Pearlridge transit center, and then re-enter the zipper lane. The reverse movement was to occur in the p.m. peak period. Please provide a discussion of whether the express buses will use the Luapele Drive ramp in the same manner.

    Response: The Luapele Ramp is oriented only in the peak direction of travel: inbound to Downtown in the morning and outbound from Downtown in the afternoon. There will be no exit to transit center and re-enter zipper lane operation of the BRT vehicles at the Luapele Ramp. The purpose of the Luapele Ramp is to provide access to and from the zipper lane east of Aloha Stadium. The regional BRT vehicles that use the Luapele ramp would be on Kamehameha Highway and Farrington Highway, west of Aloha Stadium. Other than the regional BRT vehicles, only Route A-CityExpress! vehicles are proposed to use the Luepele Ramp.

12. *Table 3.1-3 of the Draft Technical Memorandum On Estimated Operating and Maintenance Costs, Draft Product 7-20 dated August 1999, lists the different bus routes for the original BRT Alternative. Please provide a similar table for the Refined BRT Alternative so that the layperson may better understand the planned bus movements for the Luepele Drive ramp.*

    Response: See response to comment #11. Primarily regional BRT vehicles will access the Luapele ramp.

13. *In addition, neither the SDEIS nor the MIS/DEIS discusses the impact of the Aloha Stadium transit center/ park-and-ride facility on traffic at the adjacent intersection. No level of service analysis is provided for the Kamehameha Highway/ Salt Lake Boulevard intersection, although logic dictates that more buses and autos will use the transit center / park-and-ride facility than under the No-Build or TSM Alternative.*

    Response: The Aloha Stadium park and ride facility is an independent project already identified on the Transportation Improvement Program (TIP). A separate environmental document will be prepared for that project. The transit center would increase parking needs at the facility, since it would help to intercept more vehicles. Traffic increases on Kamehameha Highway were found to be minimal. Traffic was found to increase on Salt Lake Boulevard, but this traffic would be intercepted by the Aloha Stadium transit center/park and ride facility before reaching Kamehameha Highway. The Kamehameha Highway/Salt Lake Boulevard intersections will be improved as part of the Ford Island Redevelopment effort. The park and ride and the transit center teams will continue coordinating with U.S. Navy representatives regarding the combined affects of the projects at this location.

14. *Also, neither the SDEIS nor the MIS/DEIS discusses the noise impact of the Aloha Stadium transit center / park-and-ride facility. Please address the noise impact of the Aloha Stadium transit facility on the nearby Halawa Valley and Makalapa Manor residential communities*

    Response: The operations of the Aloha Stadium Transit Center and its potential noise impact on the nearby Puuwai Momi and Halawa Valley residential communities have been assessed and will be included in Section 5.6 of the FEIS. The noise sources associated with the transit center that were considered in the assessment are: (1) on-site BRT vehicles idling within the Transit Center; and (2) the off-site movement of BRT vehicles and autos traveling to the Transit Center. The projected transit center noise levels considered both the electric and hybrid diesel/electric vehicles. The noise impact from electric vehicles would be less than that from the hybrid diesel/electric vehicles.

15. *Widening – Despite plans to widen the H-1 freeway near the Luapele Drive ramp, the SDEIS is silent on the necessity for acquiring property for the widening. Please include a statement on whether property will have to be acquired for the widening. If acquisition is necessary, please identify the property.*

    Response: As stated in FEIS Section 2.2.3, the widenings of the H-1 freeway will be done within the existing H-1 right-of-way.

16. *Military Property – The Luapele Drive ramp is also near military property in Makalapa. Please address whether the ramp will impact military property.*

    Response: The ramp is contained within the H-1 freeway right-of-way.

17. *Profile Sketches – The profiles of the Luapele Drive ramp in appendix B of the SDEIS do not clearly show where and how the ramp will rise from Luapele Drive to the H-1 freeway. Please provide profile sketches from different ground level views that are understandable by the layperson.*

    Response: The FEIS includes conceptual designs of the Luapele Ramp, including how it will connect to the H-1 Freeway. These were also presented at the July 24, 2002 Aliamanu/Salt Lake/Foster Village Working Group meeting.

18. *As we discussed in an earlier meeting, I am against purchasing private property on the Ewa side of the OCCC, specifically the Gaspro site on the makai end of Dillingham Boulevard for the Kalihi Kai Transfer Center. The most optimal and cost effective solution for an in-town BRT would be to consolidate all operations at the Middle Street Center.*

    Response: The BRT system described in the FEIS includes a consolidated BRT, TheBus and TheHandi-Van operation and maintenance yard at the Middle Street Transit Center, although there are other properties that provide connections from the State's Nimitz Highway project that are still worthy of review.

19. *A major concern of the Middle Street facility is some business displacements, perhaps up to a maximum of 17 businesses as a result of expanding the Middle Street Transit Center and extending Keaahi St. for the Iwilei Transit Center. Neither the SDEIS nor MIS/DEIS, however, identifies the businesses to be displaced or the property to be taken. Nor does either document break down the number of displacements between the Middle Street facility and Iwilei Transit Center.*

    Please provide a list of businesses to be displaced by the Middle Street facility expansion. The list also should include businesses to be partially displaced, if any, by the Middle Street expansion.

    Response: The FEIS Section 5.2 discloses all the names of the businesses that would be relocated as a result of the project; however, the Middle Street maintenance facility and transit center are being developed as a separate project and the associated relocations are disclosed in a separate Environmental Assessment.

20. *Some members of the public have expressed concerns about having only one general-purpose lane in each direction on Dillingham Boulevard. The limited number of general-purpose lanes is the result of the dedication of the median lanes exclusively for in-Town BRT vehicles*

    Response: In addition to the BRT exclusive lanes, there will be at least one general purpose lane in each direction plus turn lanes along Dillingham Boulevard. The general purpose lanes on Dillingham Boulevard will be 18-feet wide between Puuhale Street and Waiakamilo Road. These extra wide lanes will permit motorists to go around local buses stopped to pick-up and drop-off passengers and vehicles turning right without having to encroach into the exclusive BRT lanes. Between Waiakamilo Road and Kaaahi Street the general purpose lanes will be 13-feet wide with bus turnouts at local bus stops so that the flow of other vehicles will be uninterrupted.

21. *Despite the exclusive lanes, the transit travel time between Downtown and Kalihi of an in-Town vehicle is not substantially less than the bus travel times under the No-Build and TSM Alternatives. Neither of those Alternatives includes special treatment for buses on Dillingham Boulevard. The following presents "composite" peak period travel time data (the SDEIS does not explain why "composite" travel time is used or how "composite" travel time is determined.) from Table 4.1-6 on page 4-7 of the SDEIS. The "Downtown" location is the "Fort Street Mall between Hotel & King" and the "Kalihi" location is the area bounded by "Waikamilo/Kalihi / Dillingham/McNeill [sic] [See the response to question (25) (B) on page 17 of Communication D-840 2000.]*

DOWNTOWN TO KALIHI
IN-VEHICLE TRANSIT "COMPOSITE" PEAK PERIOD
TRAVEL TIME (in 2025)

	No-Build	*TSM*	*Refined BRT*
Downtown to Kalihi	*7.9 minutes*	*6.8 minutes*	*5.1 minutes*

The differences in travel times among the Alternatives are not major. An In-Town BRT vehicle in the exclusive lane is projected to be faster by about 1.7 minutes than a bus in a general-purpose lane under the TSM Alternative. Compared to the No-Build, the In-Town BRT vehicle is projected to be faster by 2.8 minutes.

Response: Table 4.3-5 in the FEIS replaces this table. Table 4.3-5 summarizes projected year 2025 p.m. peak hour total transit travel time. Total transit travel time includes out of vehicle time (wait, walk and transfer). In Table 4.3-5, the travel time between Downtown and the Middle Street Transit Center is 17.6 minutes for the No Build, 16.3 minutes for the TSM, and 13.3 minutes for the Refined LPA. This reflects a Refined LPA travel time advantage of 4.3 and 3.0 minutes over the No Build and TSM alternatives, respectively. While these differences may seem small, they reflect significant differences in average transit speed. Given the approximately 3 mile distance between Middle Street Transit Center and Downtown, the average transit speeds would be 10.2 mph, 11.04 mph, and 13.5 mph for the No Build, TSM, and Refined LPA, respectively. Over a longer trip, the differences in transit speeds would result in a significant advantage for the Refined LPA. Additionally, without this key segment between Downtown and the Middle Street Transit Center, the reliability of the transit schedule could not be maintained.

22. *A statement in the SDEIS suggests that a relatively small difference in travel time may not have a significant effect. "Based on past model results, a two- to five-minute increase in travel time should not have a significant effect on transit ridership." See the second full paragraph on page 4-3 of the SDEIS.*

(A) Please provide a discussion on whether the costs of construction and operation of the exclusive lanes on Dillingham Boulevard are worth the travel time savings between Kalihi and Downtown.

(B) Additionally, please provide the travel time for an In-Town BRT vehicle assumed to be operating in a general-purpose lane in the same manner as a bus under the No-Build and TSM Alternatives. Under the scenario, two general-purpose lanes in each direction on Dillingham Boulevard should be assumed. The information is intended to reveal the extent of the advantage of the exclusive lanes over general-purpose lanes.

(C) The auto travel time between comparable points of the "Downtown to Kalihi" trip by the fastest route should be provided for each Alternative.

Response:

(A) The travel time savings on BRT from Kalihi to Downtown is significant, 24 percent savings over the No-Build. But more importantly, the BRT will be able to provide reliable and consistent travel times because of the exclusive and priority treatments while the No-Build and TSM Alternative services on Dillingham Boulevard may be subjected to schedule disruptions due to

congestion. Exclusive lanes and other priority treatments on Dillingham Boulevard are more critical than on other segments that are now proposed to have the BRT operate in semi-exclusive lanes.

(B) The BRT vehicles in exclusive lanes are estimated to operate with an average speed that is 33 percent faster than buses in general-purpose lanes. The key advantage of the exclusive lane is not only improvements on the operating speed, but its ability to maintain the speed regardless of the traffic conditions in the adjacent general purpose lanes.

(C) The auto travel time is not presented in the FEIS. However, the indicators that are commonly used to evaluate traffic conditions on roadways, traffic delays and Level-of-Service, are presented for Dillingham Boulevard in Table 4.4-5.

23. *In response to concerns about potential motorist delays from only one 14-foot general purpose lane in each direction, the Kalihi Working Group has recommended the widening of each lane to 18 feet between Laumeka Street and Waiakamalio Road. Sidewalk widening and additions also are planned.*

Response: The Refined BRT reflects these changes.

24. *The SDEIS is silent regarding any other possible negative impact from the widening of Dillingham Boulevard or addition of new sidewalks. It does not expressly indicate whether any private or other property must be acquired for the widening or new sidewalks or whether abutting property will be affected in any other manner.*

Response: See response to comment #16. Although roadway improvements from constructing the In-Town BRT lanes will affect certain parcels, the specific impacts will be limited to driveway adjustments, parking, and landscaping losses. These impacts are identified in the FEIS.

25. *Please provide a narrative describing or map depicting the following: (1) the specific Dillingham Boulevard sections to be widened for general-purpose lanes, sidewalks, or both and (2) the specific sections of Dillingham Boulevard where new sidewalks will be added.*

Response: The Preliminary Engineering drawings in Appendix B show the specific Dillingham Boulevard sections to be widened for general purpose lanes, sidewalks, or both; and specific locations along Dillingham Boulevard where new sidewalks will be added.

26. *One impact presumably from the widening are some driveway impacts and the loss of one or two parking stalls for Kapalama Makai, an apartment complex on the corner of Dillingham Boulevard and McNeill Street. Please discuss any mitigation measure for Kapalama Makai.*

Response: We will work with the owners to replace displaced parking and landscaping on the property.

27. *Moderate noise impacts are expected at only one location along the Dillingham Boulevard alignment, the Bishop Garden Apartments. The impact is projected with the hybrid diesel/electric vehicles, but not the embedded plate propelled vehicles. The Bishop Gardan Apartments is near the Dillingham Boulevard / Waiakamilo Road intersection. Not withstanding the impact, noise mitigation is not deemed to be feasible and not planned to be included as part of the Refined BRT Alternative.*

An explanation should be provided on the reason noise mitigation for the Bishop Garden Apartments is not feasible. The explanation should address whether the construction of sound walls at the front property line of the Apartments was considered as a mitigating measure.

Response: According to the Federal Transit Administration's Transit Noise and Vibration Impact Assessment (April 1995), mitigation of moderate noise impacts, which represent a noticeable but not significant change in noise levels, may not be required upon consideration of project-specific factors such as cost and feasibility.

At the Bishop Garden Apartments, where a moderate noise impact has been projected under the Refined LPA using hybrid diesel/electric vehicles, noise mitigation was analyzed and determined not to be feasible. At this location, the BRT would run in the center of the street. Mitigation in the form of a sound-absorptive noise wall would only be effective if the wall is located directly along the edge of the BRT lane in the center of the street, where it could effectively reduce the source of the noise generated by the BRT vehicle. However, construction of a wall in the center of the Dillingham Boulevard would not only obstruct traffic movements but would also impair driver visibility. Furthermore, a wall in the center of Dillingham Boulevard would be an eyesore to the community. Constructing a noise barrier along the property line of the Bishop Garden Apartments would also not be feasible because the barrier would need to leave gaps to allow vehicle access to the property from Dillingham Boulevard, which would not mitigate the noise. For these reasons, mitigation at the Bishop Garden Apartments has been determined not to be feasible.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

FORWARDED:

BENJAMIN B. LEE, FAIA
Managing Director

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MAY 7 2002

May 7, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, HI 96813

Dear Ms. Soon:

Re: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

MAY 7 3 03 PM '02 TRANS PLANNING

Attached are comments, questions, and concerns on the Supplemental Draft Environmental Impact Statement for the Primary Corridor Transportation Project, dated March 2002.

The Department of Transportation Services is to be commended for its efforts to increase the carrying capacity of our public transportation system and to improve the transportation linkages between and within outlying communities and Honolulu's Urban Core. Implementation of the Bus Rapid Transit (BRT) concept could be a means to achieve these goals. However, before the City moves forward with the Primary Corridor Transportation Project, concerns regarding the capital and operating and maintenance financing plans must be addressed and a balanced disclosure of the benefits and detriments of the Refined BRT Alternative must be provided.

I thank you for the opportunity to submit these comments and concerns, and trust that they will be included and appropriately analyzed in the forthcoming Final Environmental Impact Statement.

Sincerely,

Gary H. Okino
Councilmember, District VIII

Attachment

C: Governor Benjamin J. Cayetano
Ms. Genevieve Salmonson

May 7, 2002

COMMENTS ON THE SUPPLEMENTAL ENVIROMENTAL IMPACT STATEMENT
FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT (SDEIS)

Unless otherwise specified, references to pages, tables, and figures mean those in the SDEIS.

Communication D-840 (2000), to which the following refers, is attached.

CHAPTER 2 ALTERNATIVES CONSIDERED

Inadequacy Of TSM Alternative

(1) The Refined BRT Alternative is compared to the TSM Alternative described in Chapter 2 of the DEIS.

The TSM Alternative is inadequate as the lower-cost baseline against which the Refined BRT Alternative should be compared. The inadequacy appears to produce an advantage for the Refined BRT Alternative in a comparison of transit benefits.

Major inadequacies of the TSM Alternative are the following:

(A) Lack of P.M. Zipper Lane -- Unlike the Refined BRT Alternative, the TSM Alternative does not include the P.M. contra-flow zipper lane on the H-1 freeway from Radford Drive to the Waiawa Interchange. The lack of a P.M. zipper lane appears to negatively affect the transit travel times in the P.M. peak from Downtown to some Leeward Oahu sites under the TSM Alternative.

(B) Lesser Bus Service -- The TSM Alternative has less bus service than the Refined BRT Alternative. "Bus service" refers to service provided by minibuses, standard buses, and articulated buses, but not In-Town BRT vehicles. The following table compares the bus service under the original BRT Alternative and TSM Alternative. Comparison with the original BRT Alternative is necessary because of the unavailability of "bus service" data for the Refined BRT Alternative.

COMPARISON OF "BUS SERVICE"
UNDER ORIGINAL BRT ALTERNATIVE AND TSM ALTERNATIVE
In 2025

	Original BRT Alternative	TSM Alternative
Number Of "Buses" (Minibuses, Standard Buses, Articulated Buses, But Not In-Town BRT Vehicles)	730	601
Annual "Bus" Revenue Miles	26,303,500	20,740,000
Annual "Bus" Revenue Hours	1,688,300	1,400,000

Sources: For the original BRT Alternative, table 2.2-6 on page 2-18 of the DEIS and the response to question (22) on page 15 of Communication D-840 (2000). For the TSM Alternative, table 4.1-1 on page 4-3 of the SDEIS.

(C) Insufficient "Semi-Exclusive" Bus Lanes -- The TSM Alternative does not have enough "semi-exclusive" bus lanes. For the Alternative, the third paragraph on page 2-15 of the DEIS states in part:

> Semi-exclusive bus lanes would be placed on King Street and Beretania Street, between Middle Street and Waialae Avenue. (Semi-exclusive bus priority lanes are lanes that would be reserved for buses, although vehicles turning into and out of driveways and turning right at intersections would be permitted to use them.) These bus priority facilities would generally operate only during peak periods.

"Semi-exclusive" lanes apparently are beneficial for fast transit travel times. Illustrative of this point is that "semi-exclusive" lanes will comprise "29 percent" of the In-Town BRT alignment. See the last paragraph on page 2-11 of the SDEIS.

If "semi-exclusive" lanes are beneficial for the In-Town BRT system, then they also should be beneficial for buses under the TSM Alternative. More "semi-exclusive" bus lanes under the TSM Alternative may have resulted in better transit travel times for patronage forecasting and, consequently, increased transit

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ridership.[1]

Lack Of In-Town BRT Connection Between Waikiki And Convention Center

(2) The In-Town BRT system does not directly connect Waikiki and the Convention Center. The omission seems inconsistent with the need to make the Convention Center more attractive to convention planners and attendees by providing better transit from Waikiki hotels.

In fact, the SDEIS and DEIS ignore the Convention Center as a trip attraction, despite its importance to the State economy. Table 3.3-6 on page 3-32 of the SDEIS does not list the Convention Center among the "major activity sites in the primary urban center DP area." Table 5.1-1 on page 5-4 of the SDEIS does not list the convention center among the "major destinations in the primary urban center." Moreover, the "screening of alternatives," commencing on page 2-41, of the DEIS does not even mention the Convention Center.

An explanation of the reason for the absence of an In-Town BRT connection between Waikiki and the Convention Center should be provided.

The response to question (20)(B) on page 14 of Communication D-840 (2000) indicates that a grade separation at the Kalakaua/Kapiolani intersection will be necessary to make the connection work. If that response is repeated, elaboration should be provided.

Pearl City/Aiea Working Group's Recommendations

(3) The first paragraph on page 2-9 summarizes the recommendations of the Pearl City/Aiea Working Group. Basically, the Working Group recommends that transit centers be established in Pearl City and Aiea and that contra-flow bus operation during the peak periods link the transit centers with the Regional BRT at Luapele Drive. The paragraph also states: "The DTS is programming these projects into the City Capital Improvement

[1] Other streets, including Kapiolani Boulevard and Kuhio Avenue, will have "bus priority" lanes instead of "semi-exclusive" lanes. "Bus priority" lanes will have signal and other treatments favoring buses without restricting lane use.

Program (CIP) as separate projects from the BRT since they have independent utility."

The transit service recommended by the Pearl City/Aiea Working Group will serve the area being evaluated under the Primary Corridor Transportation Project. The capital cost, operating and maintenance cost, and transit ridership resulting from the recommendations should be included in the FEIS for the Refined BRT Alternative. Such data are necessary to display the system-wide costs and benefits.

Enforcement Of "Exclusive" And "Semi-Exclusive" In-Town BRT Lanes

(4) The last paragraph on page 2-11 and first paragraph on page 2-12 states: "Along about 38 percent of the its length, the In-Town BRT system would run in transit lanes in the median of existing arterial roads (e.g., sections of Kapiolani and Dillingham Boulevards). Along 29 percent of the alignment, the system would run along the curb in semi-exclusive lanes. Semi-exclusive lanes would be shared with right-turning vehicles, and in the case of Waikiki with other buses (public and private) and trolleys. For the remaining one-third of the alignment the BRT would operate in mixed traffic."

A description should be provided of the plan to enforce proper use of the "exclusive" and "semi-exclusive" lanes. Enforcement appears imperative if the In-Town BRT vehicles are to achieve fast travel times.

Better Justification For Differentiation Between "Semi-Exclusive" Lane And "Mixed Traffic" Lane

(5) A "semi-exclusive" lane apparently is intended to enable faster transit travel times than a "mixed traffic" lane. For practical purposes, however, both a "semi-exclusive" lane and "mixed traffic" lane will be usable by In-Town BRT vehicles and other types of vehicles, including autos. If the proper use of a "semi-exclusive" lane is not constantly enforced, then there will be no difference from a "mixed traffic" lane.

Better justification should be provided for differentiating between a "semi-exclusive" lane and "mixed traffic" lane. If there will be no difference under actual operational conditions, then all lanes not exclusive to In-Town BRT vehicles should be

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deemed "mixed traffic" lanes in the FEIS and designated "general purpose" lanes in Table 2.2-4 on Page 2-21.

Justification For Better Transit Operation On "Semi-Exclusive" Lane Than Current De Facto Operation

(6) The 1990 AA/DEIS for the rapid transit project designates "exclusive transit lanes" on certain urban streets. Concerning the operation of those lanes, the Department of Transportation Services in 1990 responded to certain questions submitted by the Council. See page 2 of Communication D-558 (1990), Managing Director's reference "MD-7-03138."

Basically, the 1990 responses indicate that a street lane reserved for buses and right-turning vehicles would not result in bus travel times faster than under "current" operation. The following are the questions and responses:

> (3) On page 2-4, in figure 2.1 of the AA/DEIS, exclusive transit lanes are depicted on Beretania Street, Alakea Street, King Street, Kapiolani Boulevard, and Kalakaua Avenue.
>
> (A) Please describe the planned operation of the exclusive transit lanes, especially during the peak periods.
>
> The exclusive transit lanes depicted on Beretania Street, Alakea Street, King Street, Kapiolani Boulevard, and Kalakaua Avenue are a formalization of the de facto exclusive bus lanes currently in operation.[2] The exclusive bus lanes will be in effect for the peak period and in the peak direction only. They will be for the exclusive use of buses and right-turning vehicles. (Underscoring added)
>
> (B) Under the operating plans of all alternatives, is transit travel time in buses based on the use of the exclusive transit lanes?

[2] The "de facto" operation refers to the situation under which the right lane of a street is used only or mainly by buses and right-turning vehicles. Through-moving vehicles generally prefer and use other lanes to avoid the frequent stops and slow speeds of buses in the right lane.

> The transit travel time in buses using the exclusive transit lanes would not change because there would be no speed change as compared to the de facto condition. (Underscoring and footnote added.)

Similar to the designated transit lanes in the 1990 AA/DEIS, the "semi-exclusive" lanes for the In-Town BRT system "would be shared with right-turning vehicles, and in the case of Waikiki with other buses (public and private) and trolleys." See the first paragraph on page 2-12 of the SDEIS.

Based on the Department of Transportation Services' 1990 responses then, an In-Town BRT vehicle using a "semi-exclusive" lane should experience "no speed change as compared to the de facto condition" under current operation. The current condition for buses on roadways and highways is described in the last paragraph on page 1-12 of the SDEIS. The decline of the average operating speeds of buses is described in the fourth paragraph on page 3-16 of the SDEIS.

A discussion should be provided on whether an In-Town BRT vehicle in a "semi-exclusive" lane is expected to operate at a faster speed than a bus currently operating in the right lane. If the contention is that the In-Town BRT vehicle will be faster, the reason for the departure from the above quoted 1990 responses should be specified.

Circulator Bus Routes On Refined BRT Alternative Alignment

(7) The response to question (3)(A) on page 2 of Communication D-840 (2000) addresses bus routes under the original BRT Alternative. It states in part: "Circulator services would also be offered along the BRT route to serve passengers who find the station spacing of the BRT inconvenient for their trip."

The statement or a similar one should be added to the bus route description for the Refined BRT Alternative on page 2-5 of the SDEIS. A discussion also should specify whether the circulator bus service will be provided on portions of the In-Town BRT alignment where only one general purpose traffic lane will be available per direction. The discussion also should explain the 0 or very few "bus arrivals" at In-Town BRT stations

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on Dillingham Boulevard, the King Street section Koko Head of the Alapai stop, the Kapiolani Boulevard section Ewa of the Isenberg stop, and Kuhio Avenue. See Table 4.1-8 on Page 4-9.

Selection Of In-Town BRT Technology

(8) The first paragraph on page 2-25 discusses the "final technology selection for In-Town BRT." A portion reads: "During the next year or so, it is anticipated that both the embedded plate and hybrid diesel/electric technologies will advance to a state where they will be considered service proven. At that time, a decision on technology may be made."

(A) A "year or so" does not seem sufficient to determine whether a technology really is "service proven." Support should be provided for the contention that a technology can be "service proven" so soon. A description also should be provided of the factors a technology must comply with in order to be considered "service proven."

(B) The City Administration is requesting design and construction funds for the In-Town BRT system in the fiscal year 2002-03 capital budget bill, although a technology has not been selected as yet. A justification of the funding request should be provided.

(C) A description of the roadway construction work necessary for each technology should be provided. Responses to question (37) on pages 23 and 24 of Communication D-840 (2000) summarize well the work needed for the embedded plate technology and hybrid propulsion technology. More construction work appears to be necessary for the embedded plate technology.

Justification For Design/Construction Appropriation Request For "Iwilei To Waikiki" In-Town BRT Segment Rather Than "Kalihi Segment"

(9) Figure 2.5-1 on page 2-27 shows the project implementation schedule. The "Kalihi segment," "Waikiki segment," and "Kakaako Makai segment" of the In-Town BRT system are programmed to commence in 2002.

In the fiscal year 2002-03 capital budget bill, however, the City Administration is requesting design and construction appropriations for the "Iwilei to Waikiki alignment."

An explanation should be provided on why funding is not being requested for the "Kalihi segment" in the fiscal year 2002-03 capital budget bill. The "Kalihi segment" seems the obvious starting point since Middle Street will serve as the beginning of the alignment and storage/maintenance yard for In-Town BRT vehicles.

Starting at Middle Street appears to be necessary for the embedded plate technology. The first full paragraph on page 5-3 states: "Additionally the embedded plate vehicles need to travel in the transit lane where the embedded plates are located (other than for short distances where battery back-up can be used)."

In-Town BRT Project Schedule

(10) Figure 2.5-1 on page 2-27 shows that the "Waikiki segment" and "Kakaako Makai segment" are programmed to be commenced and completed earlier than the "Midtown-UH segment" and "Kakaako Mauka segment." This seems disjointed.

An explanation should be provided on why the In-Town BRT segments are not programmed for completion in continuous segments from Middle Street.

CHAPTER 4 TRANSPORTATION IMPACTS

Calculation Of "Two Roadway Lanes In Each Direction"

(11) The last paragraph on page 4-1 states: "The Refined BRT Alternative would improve the person carrying ability within the Urban Core by an average of 11 percent over the No-Build Alternative. To get an equivalent increase in general-purpose throughput, two roadway lanes in each direction would need to be provided in the Urban Core, which is impossible to do without major displacements." The method of calculating the "two roadway lanes in each direction" is not included in the SDEIS or Travel Forecasting Results Report.[3]

[3] Parsons Brinckerhoff Quade & Douglas, Inc., prepared for the City Department of Transportation Services,

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Experimentation indicates that the calculation is based on the data in table 4.2-1 on page 4-12, concerning the "projected 2025 A.M. peak hour person carrying capacity at selected screenline locations," the average occupancy of an auto, and the capacity of a freeway lane designed for a speed of 50 miles per hour at level of service E.[4]

The statement that the No-Build Alternative will require "two roadway lanes in each direction" is inappropriate for a technical document. The calculation method is not provided and the imagery of a three-dimensional four-lane highway is a misrepresentation.

See attachment B for elaboration.

Ridership Of "Kakaako Makai" Branch Of In-Town BRT

(12) The second paragraph on page 4-5 states: "The Kakaako Makai Branch of the Refined BRT would account for 7,400 of the In-Town BRT daily trips, or about 9 percent of the total BRT boardings." The last paragraph on page 4-2, however, states: "This [Kakaako Makai Branch] alignment, beginning at the Iwilei Transit Center with a terminus in Waikiki would add approximately 3,700 transit boardings per day to the total transit boardings for the In-Town BRT."

The discrepancy in the Kakaako Makai Branch trips should be clarified.

"Composite" Transit Travel Times

(13) The fourth paragraph on page 4-6 describes table 4.1-6 on "transit travel times within the urban core." A sentence reads: "These travel times are a composite of A.M. and P.M. peak period time in each corridor."

Technical Memorandum On Travel Forecasting Results, Product 7-19, October 2000.

[4] The formula appears to be as follows: Number Of Lanes = [(Refined BRT Alternative Person Carrying Capacity Across Screenlines In Table 4.2-1 - No-Build Alternative Person Carrying Capacity Across Screenlines In Same Table) + 1.4 Average Persons Per Auto Occupancy] + 1,900 Passenger Cars Per Hour Per Lane Of Capacity Of One Freeway Lane Designed For 50-MPH At Level Of Service E.

An explanation should be provided of (A) how "composite" travel time was determined and (B) why "composite" travel time was used.

More importantly, table 4.1-6 should provide the "non-composited" A.M. peak and P.M. peak transit travel times for each of the origin-destination pairs.

"Downtown To Kapolei" Transit Travel Times

(14) Table 4.1-6 on page 4-7 shows the "Downtown-Kapolei"[5] transit travel times in 2005 for the Alternatives. The following are the travel times.

IN-VEHICLE TRANSIT TRAVEL TIMES
DOWNTOWN TO KAPOLEI
IN PEAK PERIOD
(In 2025)

	No-Build	TSM	Refined BRT
Downtown To Kapolei	53.7 minutes	45.5 minutes	36.8 minutes

Source: Table 4.1-6 on page 4-7 of the SDEIS.

The title of table 4.1-6 indicates that it provides "in vehicle time," apparently meaning only the time spent riding a transit vehicle. If that interpretation is correct, then transfer time is not included in the table.

Logic indicates that the "Downtown to Kapolei" trip under the Refined BRT Alternative will require a transfer at the Middle Street transit center from an In-Town BRT vehicle to an express bus. Logic also indicates that the same trip under the No-Build Alternative and TSM Alternative will not require a transfer. A person is assumed able to ride an express bus directly from Downtown to Kapolei under either Alternative.

The response to question (23)(D) on page 15 of Communication D-840 states that, under the patronage forecasting methodology, a "transfer penalty of 6 minutes was used." A six-minute transfer

[5] "Downtown" is the approximate area of "Fort St. Mall between Hotel & King" and "Kapolei" is the residential area "bounded by Farrington/Kealanani/Kamaaha/Ft. Barette." See the response to question 25(B) on page 17 of Communication D-840 (2000).

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time appears reasonable for a P.M. outbound trip because of the longer express bus headways, but too much for an A.M. inbound trip because of the two-minute In-Town BRT headways. Thus, in the following, a range of two to six minutes, signifying transfer time, is added to the in-vehicle travel time for the Refined BRT Alternative.

TRANSIT TRAVEL TIMES
DOWNTOWN TO KAPOLEI
IN PEAK PERIOD
(In 2025)

	No-Build (In-Vehicle Time)	TSM (In-Vehicle Time)	Refined BRT (In-Vehicle Time Plus 2- To 6-Minute Transfer Time)
Downtown To Kapolei	53.7 minutes	45.5 minutes	38.8 to 42.8 minutes

Table 4.1-6 should include the transfer time for the "Downtown to Kapolei" trip under the Refined BRT Alternative. If the times in the above table are correct, they should be included in the FEIS. If not, the correct times should be provided.

"Downtown To Waikiki" Transit Travel Times

(15) Table 4.1-6 on page 4-7 shows the "Downtown-Waikiki"[6] transit travel times in 2005 for the Alternatives. The times are about the same for the TSM Alternative and Refined BRT Alternative.

[6] "Downtown" is the approximate area of "Fort St. Mall between Hotel & King" and "Waikiki" is the approximate area "bounded by Kalakaua/Kuhio/Kaiulani/Duke's Lane." See the response to question 25(B) on page 17 of Communication D-840 (2000).

IN-VEHICLE TRANSIT TRAVEL TIMES
DOWNTOWN TO WAIKIKI
IN PEAK PERIOD
(In 2025)

	No-Build	TSM	Refined BRT
Downtown To Waikiki	18.7 minutes	15.8 minutes	15.7 minutes

Source: Table 4.1-6 on page 4-7 of the SDEIS.

The routes of the "Downtown-Waikiki" trip under the No-Build Alternative and TSM Alternative should be described. Of interest is whether the routes operate in a limited stop or trunk route manner.

"Downtown To Kalihi" Transit Travel Times

(16) Table 4.1-6 on page 4-7 shows that the "Downtown-Kalihi"[7] transit travel times in 2005 for the Alternatives. The times are about the same.

IN-VEHICLE TRANSIT TRAVEL TIMES
DOWNTOWN TO KALIHI
IN PEAK PERIOD
(In 2025)

	No-Build	TSM	Refined BRT
Downtown To Kalihi	7.9 minutes	6.8 minutes	5.1 minutes

Source: Table 4.1-6 on page 4-7 of the SDEIS.

(A) The routes of the "Downtown-Kalihi" trip under the No-Build Alternative and TSM Alternative should be described. Of interest is whether the routes operate in a limited stop or trunk route manner.

(B) A discussion should be provided of the transit travel time under the Refined BRT Alternative if Dillingham Boulevard is assumed to have two general-purpose lanes in each direction instead of one exclusive In-Town BRT

[7] "Kalihi" is the approximate area "bounded by Waikamilo/Kalihi/Dillingham/McNeill." See the response to question (25)(B) on page 17 of Communication D-840 (2000).

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lane/one general-purpose lane in each direction. The intent is to examine whether an In-Town BRT vehicle will lose substantial travel time if operating in a general-purpose lane.

"Downtown To UH-Manoa" Transit Travel Times

(17) The following table compares the in-vehicle transit travel times from Downtown to UH-Manoa[6] for the Alternatives under the SDEIS and the Travel Forecasting Results Report.

COMPARISON BETWEEN SDEIS AND TRAVEL FORECASTING RESULTS REPORT
IN-VEHICLE TRANSIT TRAVEL TIMES
DOWNTOWN TO UH-MANOA
IN 2025

	No-Build	TSM	BRT
SDEIS (Composite Peak Period)	27.8 minutes	23.7 minutes	14.2 minutes
Travel Forecasting Results Report (P.M. Peak Period)	13.7 minutes	13.7 minutes	12.6 minutes

Sources: Table 4.1-6 on page 4-7 of the SDEIS. Table 4-6 on page 4-5 of the Travel Forecasting Results Report.

The correct "Downtown to UH-Manoa transit travel times should be provided in table 4.1-6. An explanation for the discrepancy also should be provided.

"Downtown To UH-Manoa" Bus Route Under TSM Alternative And No-Build Alternative

(18) Table 4.1-6 on page 4-7 does not describe the bus routes from "Downtown to UH-Manoa" for the No-Build Alternative or TSM Alternative.

The routes of the "Downtown to UH-Manoa" bus trip under the No-Build Alternative and TSM Alternative should be described. Of interest is whether the routes operate in a limited stop or trunk route manner with or without a transfer at University Avenue to

[6] "UH-Manoa" is the "U.H. Upper Campus." See the response to question (25)(B) on page 17 of Communication D-840 (2000).

the UH campus.

Comparable Bus-Only Transit Travel Times

(19) Much of the transit ridership and costs of the Refined BRT Alternative is due to the increased bus fleet and service supply. The Refined BRT Alternative has a total of 336,700 daily transit trips, according to table 4.1-2 on page 4-4. Of that amount, only 75,600 or 22.5 percent involve a boarding on an In-Town BRT vehicle, according to table 4.1-4 on page 4-5. The other 261,100 or 77.5 percent of the trips apparently involve a bus-only ride. The following places the data in tabular form.

TOTAL DAILY TRANSIT TRIPS
TRIPS WITH IN-TOWN BRT BOARDINGS AND BUS-ONLY TRIPS
(In 2025)

Total Daily Trips	Trips With In-Town BRT Boardings	Bus-Only Trips (Trips Without In-Town BRT Boardings)
336,700	75,600	261,100
100.0%	22.5%	77.5%

Sources: Table 4.1-2 on page 4-4 and table 4.1-4 on page 4-5 of the SDEIS.

Chapter 4, however, does not provide data on transit travel times involving bus-only trips.

Because of the importance of the bus service assumed in the SDEIS, transit travel times between selected origins and Downtown should be provided for trips that will not involve a boarding on the In-Town BRT system.

Comparable Auto Travel Times

(20) Chapter 4 does not include data on auto travel times under the Refined BRT Alternative.

The following tables compare in-vehicle transit travel times and auto travel times under the Refined BRT Alternatives between assumed suburban transit facilities and Downtown during the peak hours. Sources of the in-vehicle transit travel times and auto travel times are the tables attached to Communication D-840

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(2000) in response to question (26) on page 18.[9] The transit travel time table attached to the Communication, however, does not appear to include the transfer times, when applicable, for the transit trips.[10] The table also does not appear to include wait times at the beginning of the transit trips and walk times at the end of the trip.

The tables, with adjustments for transit transfer times if appropriate, should be included in the FEIS. The data are important for public awareness of the differences in travel times under the transit and auto modes.

The tables also may serve another purpose. Policy makers and the public may review the travel times, especially auto travel times, and judge whether the times are logical for the hypothetical traffic situation in 2025 based on experience in actual current traffic.

[9] Travel times between the Pearl City/Aiea transit center and Downtown are not included in the following tables. The times set forth in the tables attached to Communication D-840 (2000) apparently assumed the transit center to be at the Kam Drive-In site. That site is no longer under consideration for a transit center.

[10] The table is entitled "In-Vehicle Transit Travel Time To and From Downtown (TAZ 255) (underscoring added)." A transfer adds time to a trip. The response to question (23)(D) of Communication D-840 (2000) states: "[a] transfer penalty of 6 minutes was used" in the patronage forecasting methodology.

COMPARISON OF IN-VEHICLE TRANSIT TRAVEL TIME AGAINST AUTO TRAVEL TIME UNDER REFINED BRT ALTERNATIVE TO DOWNTOWN DURING A.M. AND P.M. PEAK HOURS IN 2025

A.M. Peak	In-Vehicle Transit Travel Time	Auto Travel Time	Difference Total Transit Travel Time Minus Auto Travel Time
Kapolei Transit Center	37.6 mins.	43.8 mins.	(6.2) mins.
Waianae Transit Center	67.6 mins.	79.1 mins.	(11.5) mins.
Waipahu Transit Center	26.5 mins.	39.3 mins.	(12.8) mins.
Kaneohe Transit Center	29.2 mins.	24.4 mins.	4.8 mins.
Wahiawa Town Transit Center	37.0 mins.	46.3 mins.	(9.3) mins.
Mililani Town Transit Center	35.4 mins.	43.5 mins.	(8.1) mins.
Kailua Transit Center	26.2 mins.	27.5 mins.	(1.3) mins.
Wahiawa Park-And-Ride	32.5 mins.	44.4 mins.	(11.9) mins.
Mililani Mauka Park-And-Ride	30.8 mins.	42.5 mins.	(11.7) mins.
Royal Kunia Park-And-Ride	28.1 mins.	39.9 mins.	(11.8) mins.
Hawaii Kai Park-And-Ride	25.5 mins.	21.6 mins.	3.9 mins.

P.M. Peak	In-Vehicle Transit Travel Time	Auto Travel Time	Difference Total Transit Time Travel Minus Auto Travel Time
Kapolei Transit Center	41.0 mins.	42.1 mins.	(1.1) mins.
Waianae Transit Center	68.6 mins.	76.9 mins.	(8.3) mins.
Waipahu Transit Center	32.5 mins.	40.5 mins.	(8.0) mins.
Kaneohe Transit Center	32.4 mins.	24.2 mins.	8.2 mins.
Wahiawa Town Transit Center	37.7 mins.	44.3 mins.	(6.6) mins.
Mililani Town Transit Center	39.5 mins.	41.1 mins.	(1.6) mins.
Kailua Transit Center	28.0 mins.	22.6 mins.	5.4 mins.
Wahiawa Park-And-Ride	39.0 mins.	41.4 mins.	(2.4) mins.
Mililani Mauka Park-And-Ride	33.2 mins.	39.8 mins.	(6.6) mins.
Royal Kunia Park-And-Ride	37.9 mins.	40.8 mins.	(2.9) mins.
Hawaii Kai Park-And-Ride	28.8 mins.	22.3 mins.	6.5 mins.

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"Vehicle Hours Of Delay" For Refined BRT Alternative

(21) The first paragraph on page 4-13 discusses the "vehicle miles traveled" and "vehicle hours of delay" for all Alternatives. The paragraph notes that the Refined BRT Alternative will have fewer "vehicle hours of delay" than the No-Build Alternative. The paragraph, however, does not compare the Refined BRT Alternative with the TSM Alternative regarding "vehicle hours of delay."

Table 4.2-2 on page 4-13 provides the following data on the "vehicle hours of delay" during the peak periods for the TSM Alternative and Refined BRT Alternative.

COMPARISON OF PROJECTED PEAK PERIOD
VEHICLE HOURS OF DELAY
FOR TSM ALTERNATIVE AND REFINED BRT ALTERNATIVE
In 2025

	Time Period	TSM Alternative	Refined BRT Alternative
Vehicle Hours Of Delay	A.M. Peak	112,708	114,785
	P.M. Peak	124,036	128,477
	Total Peak	236,744	243,261 (As is in the SDEIS.)

Source: Table 4.2-2 on page 4-13 of the SDEIS.

The discussion should indicate that the Refined BRT Alternative will have more "vehicle hours of delay" in the peak periods than the TSM Alternative.

"Levels Of Service" At Intersections

(22) Table 4.2-7 on page 4-19 displays the levels of service during the peak periods at various intersections.

The table should include levels of service for the following:

(A) Intersections adjacent to Regional BRT transit centers/park-and-ride facilities that are expected to attract substantial bus trips; and

(B) More Dillingham Boulevard intersections; and

(C) Kapiolani Boulevard intersections situated Koko Head of the Kalakaua Avenue intersection.

Operation Of Iwilei, Honolulu Community College, And Apparent Waikiki Park-And-Ride Facilities

(23) Table 4.1-8 on page 4-9 shows the "drive" mode of arrivals at In-Town BRT stations. Table 4.3-1 on page 4-23 shows the number of park-and-ride stalls at In-Town BRT stations. The following table combines the data.

IN-TOWN BRT STATIONS
DRIVE MODE OF ARRIVALS AND NUMBER OF PARKING STALLS
(In 2025)

Station	Drive Arrivals	Parking Stalls
Middle Street	1,691	1,000
Honolulu Community College	307	300 (For "Kalihi Park-and-Ride")*
Iwilei	305	300
Saratoga	1,276	?

* See the response to question (30)(A) on page 20 of Communication D-840 (2000). Regarding the Kalihi park-and-ride facility, the response states: "The park-and-ride facility is located in the vicinity of Honolulu Community College."

Sources: Table 4.1-8 on page 4-9 and table 4.3-1 on page 4-23 of the SDEIS.

All "drive arrivals" at each station appear to be "park-and-ride" arrivals rather than "kiss-and-ride" arrivals. This conclusion is reached because only stations with parking stalls have "drive arrivals."

(A) Justification For Iwilei And Honolulu Community College Park-And-Ride Facilities -- The Iwilei and Honolulu Community College park-and-ride facilities are very near Downtown and relatively near other major urban employment areas. According to the response to question (30)(B) on page 20 of Communication D-840 (2000), the City Administration expects people to drive to those facilities, park their autos, and then ride an

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In-Town BRT vehicle to their destinations. The City Administration states: "Since downtown parking is not paid for or provided by all employers, some employees would choose to park in lower-priced peripheral parking and use transit to complete their journey to work." This strategy for park-and-ride facilities so near Downtown seems inconsistent with the intent of diverting people from autos to transit and reducing auto traffic congestion in the urban core.

Better justification for the Iwilei and Honolulu Community College park-and-ride facilities should be included in the FEIS so that policy makers and the general public may decide if the facilities are necessary.

(B) Enforcement Of Honolulu Community College Park-And-Ride Facility -- As the previous discussion indicates, the City Administration intends the Honolulu Community College park-and-ride facility to be used to intercept Downtown employees who drive to work. Logic, however, indicates that the facility will be very attractive to Honolulu Community College students.

A discussion should be provided on the plan to enforce the proper use of the Honolulu Community College park-and-ride facility. The discussion should describe the plan for preventing a student from parking the student's auto at the facility and walking to attend class.

(C) Enforcement Of Iwilei Park-And-Ride Facility -- The State is planning to construct a civic center near the Iwilei park-and-ride facility. Additionally, some businesses operate within walking distance of the facility.

A discussion should be provided on the plan to enforce the proper use of the Iwilei park-and-ride facility. The discussion should describe the plan for preventing an employee at the Iwilei civic center or nearby business from parking the employee's auto at the facility and walking to work.

(D) Justification For Apparent Saratoga Park-And-Ride Facility -- The response to question (27)(B) on page 19 of Communication D-840 (2000) states in part: "The travel demand analysis assumes the potential use of the Hale Koa garage and/or future garage at Ft. DeRussy as a park-and ride [sic] so that new parking could be reduced at new hotel sites."

It does not seem logical that a person in Waikiki would drive to the Saratoga station to access the In-Town BRT system, especially since the loop on Kalakaua Avenue and Kuhio Avenue makes the system easily accessible from almost everywhere in Waikiki. A better justification for the Saratoga park-and-ride facility and number of "drive" arrivals should be provided.

If the assumption is that the In-Town BRT system will be ridden by hotel guests who park their rented autos at the park-and-ride facility, then elaboration should be provided. The question is: why would they choose transit rather than the rented autos for their trips?

If the assumption is that visitor industry employees residing outside Waikiki will drive their autos to the park-and-ride facility and ride the In-Town BRT system to work, then justification for such use of the facility should be provided. Under that assumption, the facility would seem to serve as an auto trip generator rather than an auto trip reducer.

Impact Of Fort Armstrong Tunnel

(24) The Transportation For Oahu Plan: TOP 2025[11] adopted by the OMPO Policy Committee includes a Fort Armstrong Tunnel project that will enable autos to travel through Sand Island to the Kakaako makai area.

The Travel Forecasting Results Report includes ridership data for a BRT Alternative with the "Sand Island Scenic Parkway." A component of the "Parkway" is a Fort Armstrong Tunnel to the Kakaako makai area. The data indicate that the BRT with Sand

[11] Carter Burgess, prepared for the Oahu Metropolitan Planning Organization and its participating agencies, Transportation For Oahu Plan: TOP 2025 (Honolulu: 2001), table 4-1, page 4-5.

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Island Scenic Parkway Alternative will have 22,800 daily transit trips less than the original BRT Alternative without the Parkway. See table 4-2 on page 4-2 of the Travel Forecasting Results Report.

Although the surface portion of the Sand Island Scenic Parkway is not included in TOP 2025, the data in the Travel Forecasting Results Report lead to a reasonable conclusion that a Fort Armstrong Tunnel will likely reduce transit ridership.

(A) Since the Fort Armstrong Tunnel remains in TOP 2025, a discussion should be provided on whether the ridership forecast for the Refined BRT Alternative assumes the existence of the Tunnel in 2025. If the forecast does not assume the existence of the Tunnel, the reason for excluding the Tunnel from the assumption should be provided.

(B) A discussion also should be provided on how the Kakaako exit of the Fort Armstrong Tunnel will interface with the "Kakaako Makai" alignment of the In-Town BRT system.

CHAPTER 5 ENVIRONMENTAL ANALYSIS AND CONSEQUENCES

Leakage Of Federal New Start Funds

(25) Pages 5-18 and 5-19 discuss the construction economic impacts of the federal new start funds for the Refined BRT Alternative. The impact is based on the expenditure of $147 million in 1998 dollars of federal new start funds.

The discussion should state whether the $147 million was adjusted to eliminate the portion of federal new start funds that, at least in theory, should be allocated to the following:

(A) Materials, supplies, equipment, and services imported into the State or provided out-of-state;

(B) Profit retained by out-of-state contractors; and

(C) Taxes.

If the construction impact analysis was performed without

the adjustments, the discussion and tables should reflect the expenditure of appropriately adjusted federal new start funds.

Consideration Of Federal New Start Funds Actually Expended For Construction

(26) According to the fifth paragraph on page 6-10, some City general obligation bonds will have to be expended for construction as an advance for federal new start funds. When the federal new start funds are reimbursed to the City, the funds apparently will not be used for more construction. Instead, the funds apparently will be used in subsequent years for "bus replacement."

The amount of federal new start funds reimbursed to the City for the advanced City general obligation bonds should not be inputted for the construction economic impact analysis. As indicated previously, those funds apparently will be used for bus replacement, not construction, and, according to the second full paragraph on page 5-17: "Buses ... are assumed to be procured from outside the State."

The amount of local general obligation bonds advanced for construction also should not be factored in the economic impact analysis. "This is because local funds invested in the project ... would likely be spent in some other manner within the local economy -- with similar multiplied impacts -- in the absence of investment in the primary transportation corridor." See the last paragraph on page 5-18.

Business Displacements And Property Acquisitions

(27) Table 5.2-1 on page 5-21 indicates that the Refined BRT Alternative may result in up to 17 total business displacements and up to 47 partial business displacements.

(A) The businesses that may be displaced and their addresses should be identified.

(B) Other necessary property acquisitions that do not require business displacements should also be identified.

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Noise Impact Of Aloha Stadium Transit Center/Park-And-Ride Facility

(28) Section 5.6, commencing on page 5-32, discusses noise impacts.

The Section, however, does not address the noise impact of the Aloha Stadium transit center/park-and-ride facility on the nearby Halawa Valley and Makalapa residential communities. More bus and auto activity logically will occur at the transit facility because the Luapele Drive ramp replaces two others and the number of park-and-ride stalls increases to 1,000 from 500.

Direct Energy Impact From "Vehicle Hours Of Delay"

(29) Section 5.9.1 commencing on page 5-39 discusses the "direct energy (operational)" impact. The fifth paragraph on page 5-39 states:

> In assessing the direct energy impact, the following factors were used:
>
> - Annual vehicle miles traveled (VMT) for automobiles, trucks, buses, and In-town Town [sic] BRT vehicles.
>
> - Fuel consumption rates by vehicle type.

The statement is silent concerning "vehicle hours of delay."

The discussion should clarify whether the amount of "vehicle hours of delay" was used to determine the direct energy impact of each Alternative. If not, the discussion should explain the reason for the omission.

Number Of "Passenger Vehicles" And "Transit Buses" For "Indirect Energy Impact"

(30) The second full paragraph on page 5-40 states: "Indirect energy also involves the manufacturing and maintenance of vehicles. This includes both passenger vehicles and transit buses."

A discussion should be provided on how the numbers of "passenger vehicles" and "transit buses" under each Alternative were determined. The discussion also should identify the numbers for each Alternative.

If the number of "passenger vehicles" represents or includes the autos that theoretically will not be purchased by new transit riders making home-based work trips, then justification should be provided. A person changing to the transit mode for a home-based work trip likely will continue to own an auto for non-work trips.

"Indirect Energy Consumption" For "Maintenance"

(31) The first full paragraph on page 5-43 states: "Construction of the Refined BRT Alternative would result in the greatest indirect consumption of energy in comparison to the other alternatives." For construction, the indirect energy consumption appears to be a one-time value.

With respect to the indirect energy consumption for maintenance, the first full paragraph on page 5-43 also states that "overall energy consumption for maintenance [under the Refined BRT Alternative] would be approximately one thousand barrels of oil more due to the increased use [sic] number of transit vehicles in service." Table 5.9-3 on page 5-42 indicates that the indirect energy consumption for "maintenance" is calculated based only on the maintenance of "passenger vehicles" and "transit buses."

(A) The table and a discussion should indicate whether the indirect energy consumption for "maintenance" is an annual or one-time value.

(B) The table also should include indirect energy consumption values for the maintenance of "roadways," "parking," "structures," and "maintenance facility." Indirect energy consumption values are provided in the table only for construction of those facilities.

Effect Of Elimination Of Ala Moana Boulevard Street Parking On Ala Moana Park

(32) The fourth full paragraph on page 5-47 discusses the federal "Section 4(f)" limitations on the use of parklands for

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transportation projects. The paragraph states:

> The word "use" in this case means:
>
> * * *
>
> • the project's proximity to the site substantially impairs those functions that qualify the site as a Section 4(f) resource even though no land is permanently or temporarily acquired. This is called "constructive use."

A discussion should be provided on whether the elimination of the on-street parking for Ala Moana Park caused by the In-Town BRT alignment represents a "constructive use" under Section 4(f).

CHAPTER 6 FINANCIAL ANALYSIS

Use Of Fiscal Period 2002-2010 For Conceptual Capital Funding Plan Of Refined BRT Alternative

(33) Table 6.1-3C on page 6-8 displays the "conceptual capital funding plan" for the Refined BRT Alternative for the fiscal years 2002-2010. In contrast, table 6.1C-3 on page 6-8 of the DEIS displays the conceptual funding plan for the original BRT Alternative for the fiscal years 2001-2010.

(A) For a better understanding of the total cost of the integrated transit system, the "conceptual capital funding plan" for the Refined BRT Alternative should encompass the fiscal period 2001-10. Some of the buses or other improvements paid with expenditures during the fiscal year 2001 will be used under the Refined BRT Alternative.

(B) The "conceptual capital funding plan" for the Refined BRT Alternative shows a bus acquisition cost of $16,649,000 less than the bus acquisition cost for the original BRT Alternative in the DEIS. The reason for the difference should be explained.

Interest On Debt Service

(34) Table 6.1 on page 6-3 sets forth the capital costs of

the Alternatives.

At least in a footnote, the table should include the amount of interest payable on general obligation bonds issued to fund each Alternative.

Calculation based on the data in table E-3 on page E-11 indicates that interest payable for the Refined BRT Alternative during the 2002 to 2025 period will amount to $195,442,000 for general obligation bond proceeds of $331,000,000.[12]

Land Acquisition Costs

(35) The SDEIS does not mention whether land acquisition costs for transit centers and park-and-ride facilities are included in the capital cost of the Refined BRT Alternative. In contrast, the first paragraph on page 2-34 of the DEIS indicates that land acquisition costs for some facilities were not included in the capital costs of the Alternatives.

(A) A discussion should be provided on whether the capital cost of the Refined BRT Alternative includes all costs for land acquisition, when necessary, for transit centers and park-and-ride facilities.

(B) The discussion should identify the transit centers and park-and-ride facilities, the acquisition of land for which may be required, and the estimated cost of acquisition.

Inclusion Of Pearl City/Aiea Working Group's Recommendations And Apparent Waikiki Park-And-Ride In Refined BRT Alternative's Conceptual Capital Funding Plan

(36) Table 6.1-1 on page 6-3 displays the capital costs of the Alternatives.

(A) The capital cost of the Refined BRT Alternative should include the cost to the City, if any, of the apparent Waikiki park-and-ride facility.

[12] The calculation is as follows: $526,442,000 in "debt service on bonds issued after 2002" - $331,000,000 in "G.O. bond proceeds." The calculation does not include debt service payments after 2025 for bonds issued before 2025.

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(B) The capital cost of the Refined BRT Alternative also should include the costs of the Pearl City and Aiea park-and-ride facilities recommended by the Pearl City/Aiea Working Group. According to generic estimates, one four-bus bay, 100-surface parking stall facility has a capital cost of $1,660,000 in 1998 dollars, excluding land acquisition cost. See page 5 of the "Regional BRT Transit Centers Capital Cost Estimates" and page 5 of the "Regional BRT Transit Parking Capital Cost Estimates" in the Estimated Capital Costs Technical Report.[13]

(C) If the Kamehameha Highway bus contra-flow operation recommended by the Pearl City/Aiea Working Group is expected to incur capital cost, that cost should be included in the capital cost of the Refined BRT Alternative.

Commitment To Bus Acquisition Schedule

(37) An ambitious bus purchase schedule for the 2000 to 2025 period is set forth for the original BRT Alternative. The following table displays the number of buses that must be purchased under the schedule.

BUS PURCHASE SCHEDULE BETWEEN 2000 AND 2025 FOR ORIGINAL BRT ALTERNATIVE

Minibuses	Standard Buses	Articulated Buses	TOTAL
170	893	174	1,237

Source: Page 3 of the "Bus Replacement Capital Cost Estimates" of the Estimated Capital Costs Technical Report.

Much of the benefits of the Refined BRT Alternative will result from the bus service.[14] Most of the transit trips under

[13] Parsons Brinckerhoff Quade & Douglas, Inc., prepared for the City Department of Transportation Services, (Final) Technical Memorandum On Estimated Capital Costs And (Draft) Technical Memorandum On Estimated Capital Costs For Sand Island Bypass/Nimitz Parkway Elements, dated May 2000.

[14] Logic indicates that the bus purchase schedule for the Refined BRT Alternative will be the same or similar to that for the original BRT Alternative since both will have a fleet of 730 buses in 2025. Consequently, any conclusion derived from the schedule for the original BRT Alternative would seem applicable to the Refined BRT Alternative.

the Alternative will be taken only on buses. Consequently, adherence to the bus supply will be necessary to achieve most of the forecasted ridership and benefits of the Refined BRT Alternative.

Bus purchases and service, however, will be susceptible to cutbacks if the City experiences future financial problems.

A discussion should be provided on the plan to adhere to the bus purchase schedule and bus service supply identified for the Refined BRT Alternative. The discussion should indicate what type of legislative or intergovernmental commitment is necessary now to guarantee adherence to the schedule in the future. The discussion also should indicate what penalty, if any, may be imposed by the Federal Transit Administration on the City due to noncompliance with the bus purchase schedule.

Need For Additional Federal New Start Funds For Refined BRT Alternative

(38) Table 6.1-3C on page 6-8 of the SDEIS indicates that, under the capital funding plan for the Refined BRT Alternative, federal new start funds amounting to $229,751,000 will be required. In contrast, table 6.1-3C on page 6-8 of the DEIS indicates that the original BRT Alternative would have required $182,100,000 in federal New Start funds.

A discussion should be provided on the competitive process for obtaining federal new start funds from the Federal Transit Administration. The discussion also should summarize the contingency funding source if the City does not receive the full amount.

Justification For Statements Concerning Future Taxes

(39) The third paragraph on page 6-1 states: "The financial analysis concludes that the Refined BRT Alternative along with the system-wide bus and TheHandi-Van replacement and expansion program can be funded without adding new taxes or raising taxes using the following revenues sources: ...."

(A) A discussion should address whether City funds will have to be diverted from existing non-transit programs and projects to the Refined BRT Alternative as a

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consequence of the capital and operating and maintenance funding plans in the SDEIS. If no diversion is required, justification should be provided, given the increased debt service and operating and maintenance cost for the Alternative.

(B) The discussion also should address whether taxes will have to be added or raised to replace the City funds diverted from non-transit programs and projects to the Refined BRT Alternative. If taxes will not have to be added or raised, justification should be provided.

Use Of Federal Formula Funds For Capital Needs

(40) The conceptual capital funding plan for the Refined BRT Alternative proposes the use of the major portion of the annual federal Section 5307 grant to the City for capital costs. The last paragraph on page 6-6 states: "Over the 2005-2021 period, a minimum of 30 percent of the City's Section 5307 funds are assumed to be used for preventive maintenance,, [sic] with a maximum of 70 percent used for other capital and planning needs." The second full paragraph on page 6-12 states: "The assumption made in the financial analyses is that a minimum of $12.00 million in FTA Section 5307 funds would be reserved for preventive maintenance in FY 2002, and a minimum of $6.00 million annually in FYs 2003-05."

The following table displays the amounts expended or encumbered for "preventive maintenance" from the federal grants fund in the recent past. Expenditures from that fund are made for City operating programs.

FEDERAL GRANTS FUND
EXPENDITURES AND ENCUMBRANCES FOR
"PREVENTIVE MAINTENANCE"
(In Thousands Of Dollars)

	FY 98-99	FY 99-00	FY 00-01
Preventive Maintenance Expenditures/Encumbrances As Of June 30 Of Fiscal Year	$ 5,798.6	$18,276.6	$20,000.0

Sources: Pages on the federal grants fund for "transportation services" in the "Budget And Fiscal Services Director's Financial Report" for the pertinent fiscal years. The "Reports" do not identify the "preventive maintenance" funds as coming from the Section 5307 grants. A conclusion that the funds are from the Section 5307 grants, however, seems reasonable.

(A) The amounts of federal funds expended on or encumbered for preventive maintenance, an operating program, were more than $6 million in the fiscal year 1999-2000 and fiscal year 2000-01. The operating and maintenance cash flow analysis in table E-3 indicates that City general funds apparently will have to replace the federal preventive maintenance funds diverted to the capital cost of the Refined BRT Alternative. A discussion of whether this assessment is correct should be provided.

(B) If the assessment under paragraph (A) is correct, the last sentence on page 6-6 should be eliminated or appropriately revised. It states: "The Section 5307 assistance for preventive maintenance reduces the annual General Fund subsidy for transit operating and maintenance (O&M) costs." When compared to the expenditures in fiscal year 1999-00 and fiscal year 2000-01, the planned diversion of the federal funds in subsequent years to capital cost may require an increase of the City general fund subsidy for transit operating and maintenance.

(C) A discussion should be provided on whether the diversion of federal funds from preventive maintenance to capital cost will result in less bus maintenance in the future.

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Availability Of Federal Highway Administration Funds

(41) The fourth and fifth paragraphs on page 6-9 discuss the availability of Federal Highway Administration funds for the capital cost of the Refined BRT Alternative. The following statement is in the fourth paragraph: "Currently, a total of $116 to $120 million in FHWA funds are received each year by the State." The fifth paragraph states: "For the Refined BRT Alternative, a total of $160 million in FHWA funding has been assumed in the financial analysis, with the amount capped at $20 million annually over the FYs 2002-2010 period."

The amounts of FHWA funds annually expended by the City for capital improvements in the recent past should be identified. A discussion also should be provided on the probability of the City receiving $20 million annually in FHWA funds.

Response To State Director Of Transportation's Statement On Use Of Federal Highway Administration Funds

(42) In a letter, dated September 18, 2001, to the City Director of Transportation Services, the State Director of Transportation comments on State participation in funding the BRT project. The letter reads in part:

> We have from the onset expressed our reservations on being able to fund this project, as the statewide needs far exceed our limited resources. More recently, in meetings on the project, we were advised that alternative funding strategies were in place, where Federal Highways (FHWA) and State funds would not be required.
>
> As such, it is not our intent or expectation to provide funding for the BRT project; and have developed our capital improvement programs accordingly. (Underscoring added.)

A response to the State Director of Transportation's position regarding the FHWA funds should be provided. If FHWA funds are unavailable, the contingency funding source should be identified.

Availability Of City Highway Funds For Increased Debt Service Of Refined BRT Alternative

(43) The third full paragraph on page 6-10 discusses the use of City highway funds for debt service. The paragraph includes the statement: "Over this same period [fiscal years 2002-2010], the average annual contribution for debt service would be $34.74 million, of which approximately 45 percent would be for debt incurred by the City prior to 2002." The following compares the actual, estimated, and proposed transfers in recent years of City highway funds to pay debt service. As is displayed, the amounts are much less than $34.74 million.

TRANSFERS FROM CITY HIGHWAY FUND TO PAY DEBT SERVICE

FY 2002-10 Average Annual Contribution Under SDEIS	FY 2000-01 Actual Transfer	FY 2001-02 Estimated Transfer	FY 2002-03 Proposed Transfer
$34,740,000	$14,949,000	$13,943,829	$16,872,798

Sources: For the FY 2000-01 actual transfer, page 112 of the Comprehensive Annual Financial Report For The Fiscal Year Ended June 30, 2001. For the FY 2001-02 estimated transfer and FY 2002-03 proposed transfer, page C-8 of the The Executive Program And Budget, Fiscal Year 2003, Volume I: Operating Program And Budget.

(A) A discussion should be provided on what effect the diversion of the additional City highway funds for the Refined BRT Alternative's debt service will have on other programs and projects now funded by City highway funds.

Of particular interest is whether the annual $18 to $20 million in additional City highway funds for the debt service payment will be diverted from the City highway fund transfers to the bus transportation fund. For fiscal year 2002-03, the proposed "bus subsidy" from the City highway fund is $33,990,661, according to page C-16 of The Executive Program And Budget, Fiscal Year 2003, Volume I: Operating Program And Budget.

(B) A discussion also should be provided on the City

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Administration's intention regarding the source of debt service payment for future City highway projects.

Use Of City Highway Funds For Capital Match

(44) The third full paragraph on page 6-10 states: "Over the longer FYs 2002-2025 period, the average annual contribution from the City Highway Fund to provide local match to federal grants is projected to be $5.53 million."

According to the response to question (45)(A) on page 35 of Communication D-840 (2000), the City has not made any cash expenditure from the City highway fund for a mass transit capital project in the recent past.

A discussion should be provided on whether a cash expenditure from the City highway funds for a capital improvement project will be affordable, given the other City highway fund obligations, both proposed in the SDEIS and existing under current budgetary practice.

Funding Source For Debt Service

(45) A discrepancy exists in the description of the funding source of the debt service for the Refined BRT Alternative. Table E-3 indicates that the debt service will be paid from the City highway fund. Additionally, in a discussion of the City highway fund, the second full paragraph on page 6-10 states: "It is assumed that the Fund pays for debt service on transit-related bonds issued after 2002." In discussing the City general fund, however, the fourth full paragraph on the same page states: "The debt service on General Obligation Bonds would be paid from the City General Fund."

Clarification should be provided on whether the debt service for the Refined BRT Alternative will be payable from the City highway fund or City general fund. A transfer of City highway funds to the City general fund for subsequent payment of the debt service should be regarded as a payment from the City highway fund.

Availability Of General Obligation Bond Capacity

(46) The third paragraph on page 6-11 states: "The issuance

of General Obligation Bonds is constrained in the financial analyses to a total equivalent to the 1996 level of $1.13 billion outstanding in any given year. This amount is adjusted annually to reflect a conservative 1.5 percent rate of inflation and to allow for repayment of principal and interest on outstanding bonds."

(A) The City Administration uses outstanding general obligation bonds as the factor for determining the capacity for additional general obligation bonds. The City Administration does not factor in its analysis outstanding reimbursable and revenue bonds payable from dedicated revenues instead of general revenues. Debt service on certain of those outstanding bonds, such as sewer bonds, is also payable by residents and businesses through special charges additional to real property taxes. Thus, the debt burden from reimbursable and revenue bonds should be considered in addition to the debt burden from general obligation bonds. Housing or other types of bonds, the debt service of which is payable exclusively by limited beneficiaries, should be excluded.

(B) The following is a portion of a table from The Comprehensive Annual Financial Report For The Fiscal Year Ended June 30, 2001, with verbatim footnotes. It indicates that the $1,132,844,000 in direct bonded debt in fiscal year 1995-96 included bonds for sewer and refuse collection purposes. Only from the fiscal year 1999-2000 does the direct bonded debt exclude bonds for sewer and refuse collection purposes. Consequently, the $987,147,000 in direct bonded debt in that year should be the appropriate base for the City Administration, under its methodology, to measure the direct bonded debt ceiling in subsequent years for transit and other non-self-supporting projects.

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DIRECT BONDED DEBT
FROM FISCAL YEAR 1991-92 TO FISCAL YEAR 2000-01
(The footnote designations and narratives are repeated verbatim from the source to avoid misinterpretation of the information)

Fiscal Year	Direct Bonded Debt (c) (In Thousand $)
1991-92	635,872
1992-93	912,630
1993-94	1,122,894
1994-95	1,078,373
1995-96	1,132,844 (d)
1996-97	856,596 (d)
1997-98	870,856 (d)
1998-99	978,576 (d)
1999-00	987,147 (d)
2000-01	1,103,082 (d)

(c) Excludes non-tax supported debt.
(d) Effective fiscal year 1997, excludes bonds issued for sewer purposes by Ordinance No. 97-46. Effective fiscal year 2000, excludes bonds issued for refuse collection by Ordinance No. 99-22.

Source: Table 8 on page 216 of The Comprehensive Annual Financial Report For The Fiscal Year Ended June 30, 2001.

A discussion should be provided of the following:

(1) Why the City Administration uses the $1,132,844,000 figure for fiscal year 1995-96, the highest in recent years, for its calculation of the direct bonded debt ceiling instead of the more appropriate $987,147,000 in fiscal year 1999-00?

(2) Whether, according to the City Administration's adjustment methodology, the City exceeded its direct bonded debt ceiling in fiscal year 2000-01? If the $987,147,000 is increased by 1.5 percent, the result is $1,001,954,000. If the $987,147,000 is increased by 4.0 percent, the sum of 1.5 percent and the 2.5 percent assumed inflation rate, the result is $1,026,633.

(3) Whether, according to the City Administration's 1.5 percent adjustment methodology, the City may issue bonds in fiscal year 2002-03 without violating the

direct bonded debt ceiling for that fiscal year? According to Communication D-943 (2001), outstanding and unpaid general obligation bonds amounted to $1,306,499,928 as of December 5, 2001.

Increased General Obligation Bond Proceeds

(47) From the fiscal year 1995-96 to the fiscal year 1998-99, the City annually received about $100,000,000 in general obligation bond proceeds for the general obligation and highway improvement bond funds. Since then, the annual amounts of general obligation bonds received for those funds have increased. More notably, the City Administration proposes a major increase for the fiscal year 2002-03. The following table displays the data.

CITY GENERAL OBLIGATION BOND PROCEEDS OF
GENERAL IMPROVEMENT BOND FUND AND HIGHWAY IMPROVEMENT BOND FUND
(In Thousands Of Dollars)

G. O. Bond Proceeds Of:	FY 95-96 Actual	FY 96-97 Actual	FY 97-98 Actual	FY 98-99 Actual
Gen. Imp. Bond Fund	$ 70,081	$ 91,437	$ 87,444	$ 77,000
Hwy. Imp. Bond Fund	$ 29,918	$ 8,562	$ 12,556	$ 23,000
TOTAL	$ 99,999	$ 99,999	$100,000	$100,000

G. O. Bond Proceeds Of:	FY 99-00 Actual	FY 00-01 Actual	FY 01-02 Estimated	FY 02-03 Proposed By City Admin.
Gen. Imp. Bond Fund	$ 86,500	$ 98,340	$105,000	$157,084
Hwy. Imp. Bond Fund	$ 25,000	$ 51,720	$ 45,000	$116,548
TOTAL	$111,500	$150,060	$150,000	$273,632

Sources: For fiscal year 1995-96 to fiscal year 2000-01, the pages showing the combined income statements for the capital project funds in the Comprehensive Financial Report for those fiscal years. For fiscal years 2001-02 and 2002-03, pages C-36 and C-37 of The Executive Program And Budget, Fiscal Year 2003, Volume I: Operating Program And Budget.

A discussion should be provided on the City Administration's

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intent with respect to the annual amounts of general obligation bonds planned to be issued for all City projects in the near future. The discussion is necessary to better integrate the capital funding plan for the Refined BRT Alternative with the projected funding of other capital improvement projects.

General Obligation Bonds Required For Refined BRT Alternative

(48) Table 6.1-12 on page 6-20 displays the annual general obligation bond requirements for the Refined BRT Alterative for the fiscal year 2001-02 through fiscal year 2004-05. No comparison is provided to past general obligation bond expenditures for transit projects.

Highway improvement bond fund expenditures for "utilities or other enterprises" may serve as a proxy for general obligation bond fund expenditures for transit projects. The "utilities or other enterprises" function appears to consist almost exclusively of such projects. Furthermore, most of the proceeds of the highway improvement bond fund are from general obligation bonds.[15]

The following table compares (1) past highway improvement bond fund expenditures for "utilities or other enterprises" and expenditures/encumbrances/appropriations for one additional project against (2) the proposed general obligation bond funding requirements for the Refined BRT Alternative. The additional project is the Pearl City bus facility. For an unknown reason, appropriations for that project were made in fiscal year 1997-98 and fiscal year 1999-00 under the "general government" function, not "utilities or other enterprises."

Basically, the table shows that the proposed annual general obligation bond expenditures for the Refined BRT Alternative will be much greater than the past annual highway improvement bond expenditures for transit projects.

[15] In the recent past, there were no expenditures from the general improvement bond fund for "utilities or other enterprises."

COMPARISON OF HIGHWAY IMPROVEMENT BOND FUND EXPENDITURES FOR "UTILITIES OR OTHER ENTERPRISES" AND GENERAL IMPROVEMENT BOND FUND EXPENDITURES/ENCUMBRANCES/APPROPRIATIONS FOR PEARL CITY BUS FACILITY FROM FISCAL YEAR 1995-96 THROUGH FISCAL YEAR 2000-01 AGAINST ANNUAL GENERAL OBLIGATION BOND REQUIREMENTS FROM FISCAL YEAR 2001-02 THROUGH FISCAL YEAR 2004-05 FOR REFINED BRT ALTERNATIVE
(In Thousands Of Dollars)

	FY 95-96 Actual	FY 96-97 Actual	FY 97-98 Actual	FY 98-99 Actual
Highway Imp. Bond Funds Expended For Utilities/ Other Enterprises	$ 4,410	$ 2,162	$ 3,992	$ 2,384
General Imp. Bond Funds Exp./Enc. For Pearl City Bus Facility			$ 4,999	
Total	$ 4,410	$ 2,162	$ 8,991	$ 2,384

	FY 99-00 Actual	FY 00-01 Actual		
Highway Imp. Bond Funds Expended For Utilities/ Other Enterprises	$ 3,587	$ 4,685		
General Imp. Bond Funds Approp. For Pearl City Bus Facility	$ 1,100			
Total	$ 4,687	$ 4,685		

	FY 01-02 Proposed	FY 02-03 Proposed	FY 03-04 Proposed	FY 04-05 Proposed
G.O. Bond Requirement For Refined BRT	$ 28,000	$ 60,000	$103,000	$ 68,000

Sources: For fiscal year 1995-96 to fiscal year 2000-01, the pages with the income statements for the highway improvement bond fund in the Comprehensive Financial Report for the pertinent fiscal years. For the Pearl City bus facility, page 76 of The Executive Program And Budget, Fiscal Year 2000, Volume II: Capital Program And Budget and Ordinance 99-27. For fiscal year 2001-02 to fiscal year 2004-05, table 6.1-12 on page 6-20 of the SDEIS.

A discussion should be provided on the need for much greater general obligation bond expenditures for the Refined BRT Alternative than past general obligation bond expenditures for

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transit projects.[16] The discussion especially should address whether general obligation bonds will have to be diverted from highway and other non-transit projects.

Assumptions Concerning Property Taxes

(49) The last paragraph on page 6-10 states:

> With regard to the first constraint, the assumption is that property values will remain flat and that the City would maintain the current property tax rate. This creates a ceiling on the amount of General Obligation Bonds the City would be able to issue because it limits the City's debt service payment capacity to the current level of property tax revenues.

(A) An explanation should be provided to reconcile the assumption of flat property values and tax rates with the assumption of 1.5 percent annual increase of future outstanding general obligation bond debt. See the third paragraph of page 6-11 for the assumption on the 1.5 percent annual increase. In particular, the explanation should discuss the City' ability to pay increasing general obligation bond debt service when general revenues from property taxes are flat.

(B) If an adequate explanation cannot be provided, the reference to the assumption of flat property values and tax rates should be deleted.

Fare Increase

(50) The first full paragraph on page 6-12 states: "To meet the City's new farebox recovery policy the fares would need to increase slightly from those used in the financial analyses."

The necessary fare increase should be identified by year and amount. The City Administration also should consider proposing a bill to amend the transit fare schedule in Chapter 13, Revised

[16] A portion of the general obligation bond requirement is intended to fund the zipper lane and direct access ramps for the Regional BRT highway system. An argument may be made that the portion should be considered an expenditure for "highways and streets." That argument, however, would be unpersuasive. The major benefits of those facilities will be for transit, not regular traffic.

Ordinances of Honolulu 1990, to implement the necessary fare increase. The bill should have the appropriate future effective date.

Use Of City General Funds For Refined BRT Alternative

(51) According to table 6.1-5 on page 6-13, the City general fund requirement for transit operating and maintenance will be $98,817,000 in fiscal year 2004-05 and $132,813,000 in fiscal year 2009-10. Those amounts are much more than the past, current, and proposed City general fund subsidies for bus operating and maintenance, as shown in the following table.

It is noted that, for the fiscal years 2004-05 and 2009-10, part of the projected general fund subsidies possibly may be offset by City highway funds. See the next comment.

COMPARISON OF GENERAL FUND SUBSIDY FOR TRANSIT OPERATING AND MAINTENANCE (In Thousands Of Dollars)

	FY 00-01 Actual	FY 01-02 Estimated	FY 02-03 Proposed
General Fund Subsidy For Transit O&M	$ 37,518	$ 46,422	$ 42,176

	FY 04-05 Projected	FY 09-10 Projected
General Fund Subsidy For Transit O&M	$ 98,817*	$132,813*

* Portion of the amount possibly may be replaced by City highway funds.

Sources: For fiscal year 2000-01, page 79 of the Comprehensive Annual Financial Report For The Fiscal Year Ended June 30, 2001. For fiscal year 2001-02 and fiscal year 2002-03, page C-16 of The Executive Operating Budget And Program, Fiscal Year 2003, Volume I: Operating Program And Budget. For fiscal year 2004-05 and fiscal year 2009-10, table 6.1-5 on page 6-13 of the SDEIS.

An explanation should be provided of where the additional general fund subsidy in future years will come from. The explanation should be consistent with the assumption in the last

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paragraph on page 6-10 "that property values will remain flat and that the City would maintain the current property tax rate." The explanation also should indicate whether transfers of City highway funds to the general fund are contemplated to ease the burden on the general fund in future years.

Probable Limited City Highway Fund Offset Of City General Fund Subsidy

(52) Chapter 6 and the cash flow analysis of table E-3 do not discuss or identify a possible City highway fund offset of the City general fund subsidy for the Refined BRT Alternative.

The following table estimates the amounts of City highway funds that may be available to offset part of the City general funds required for the operating and maintenance costs of the Refined BRT Alternative in fiscal year 2004-05 and fiscal year 2009-10. The methodology of the estimates is basically as follows:

(A) The City highway funds proposed to be transferred to the bus transportation fund in fiscal year 2002-03 is escalated by 2.5 percent annually, the same inflation rate assumed in the SDEIS.

(B) The escalated City highway fund amounts for fiscal year 2004-05 and fiscal year 2009-10 are reduced by the City highway funds necessary in those fiscal years to pay the debt service and provide the local capital match for the Refined BRT Alternative. The debt service and local capital match amounts are identified in table E-3 on pages E-11 and E-12.

The amounts remaining after the reductions are the net City highway funds estimated as available to offset the City general fund subsidies for the Refined BRT Alternative's operating and maintenance cost.

As is displayed, the net City highway funds available for the Refined BRT Alternative's operating and maintenance costs in fiscal year 2004-05 and fiscal year 2009-10 are much less than the City highway fund subsidy of $33,991,000 for bus operating and maintenance proposed in fiscal year 2002-03.

ESTIMATE OF NET CITY HIGHWAY FUNDS AVAILABLE TO OFFSET PART OF CITY GENERAL FUND SUBSIDY FOR REFINED BRT ALTERNATIVE'S OPERATING AND MAINTENANCE COST (In Thousands Of Dollars)

	FY 04-05 Estimated	FY 09-10 Estimated
Escalated City Highway Funds Before Reduction For Debt Service And Local Capital Match (Based On 2.5% Annual Escalation Of $33,991,000 Proposed City Highway Fund Transfer To Bus Transportation Fund In FY 02-03.)	$35,712	$40,405
Less City Highway Funds For:	Less:	Less:
Debt Service For Post-2002 Bonds	$23,272	$25,698
Local Capital Match	$ 3,265	$ 8,116
Net City Highway Funds Available To Offset City General Fund Subsidy For Operating & Maintenance Cost	$ 9,175	$ 6,591

Sources: For the proposed $33,991,000 City highway fund transfer to the bus transportation fund, page C-16 of the Executive Program And Budget, Fiscal Year 2003, Volume I: Operating Program And Budget. For debt service payments and local capital match, table E-3 on pages E-11 and E-12 of SDEIS.

The next table deducts from the projected City general fund subsidies for the Refined BRT Alternative's operating and maintenance costs the net City highway funds available for transit operating and maintenance. The table indicates that the City general fund subsidy for the Refined BRT Alternative's operating and maintenance will remain relatively large, even after the possible offset by available City highway funds. For awareness of the magnitude of the potential subsidy, the following is offered: the City general fund subsidy proposed in fiscal year 2002-03 to subsidize the bus system's operating and maintenance cost is $42,176,020.[17]

[17] See page C-16 of The Executive Program And Budget, Fiscal Year 2003, Volume I: Operating Program And Budget.

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PROJECTED CITY GENERAL FUND SUBSIDY,
AFTER NET CITY HIGHWAY FUND OFFSET,
FOR REFINED BRT ALTERNATIVE'S OPERATING AND MAINTENANCE
IN FISCAL YEARS 2004-05 AND 2009-10
(In Thousands Of Dollars)

	FY 2004-05	FY 2009-10
Projected City General Funds Necessary For Refined BRT Alternative's Operating And Maintenance After Offset By City Highway Funds (Calculated As Follows: City General Fund Subsidy In Table 6.1-5 On Page 6-13 Of SDEIS Less Net City Highway Funds Available For Offset In Preceding Table.)	$ 89,642 ($98,817 less $9,175)	$126,222 ($132,813 less $6,591)

City Highway Fund Growth Assumption

(53) Unlike the DEIS, the SDEIS does not discuss assumptions regarding the growth of the City highway fund. The assumptions are important since the conceptual capital funding plan proposes the use of City highway funds to pay the debt service incurred for the Refined BRT Alternative. Policy makers should be made aware of whether the City highway funds will have to be diverted from bus operations or other highway-related programs.

The following table displays the City highway fund revenues and percentage changes from the fiscal year 1995-96 through the fiscal year 2000-01.

CITY HIGHWAY FUND REVENUES
(In Thousands Of Dollars)

	FY 95-96	FY 96-97	FY 97-98
Revenues	$ 96,974	$ 97,513	$ 99,129
% Change From Previous Year	0.07%*	0.6%	1.7%
	FY 98-99	FY 99-00	FY 00-01
Revenues	$ 94,620	$ 94,275	$102,904
% Change From Previous Year	(4.5%)	(0.4%)	9.2%

* The amount of revenues in fiscal year 1994-95 was $96,908,000.

Sources: Pages with the income statements for the City highway fund in the Comprehensive Annual Financial Report for the pertinent fiscal years.

(A) If the financial plan for the Refined BRT Alternative assumes a City highway fund growth rate inconsistent with the approximate 1.2 percent average annual rate in the table, justification for the assumption should be provided.

(B) The City Administration's assumption on the growth rate of City highway fund expenditures for non-transit City programs also should be provided. Knowing the assumption should assist policy makers in determining whether the City highway fund will be sufficient to pay for both transit and non-transit programs. If the growth rate differs from the 2.5 annual inflation rate assumed for the SDEIS, the difference should be justified.

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DEPARTMENT OF TRANSPORTATION SERVICES

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TPD5/02-01835R

November 13, 2002

The Honorable Gary Okino
Member, City Council
City and County of Honolulu
Honolulu, Hawaii 96813

Dear Councilmember Okino:

Subject: Primary Corridor Transportation Project

This is in response to your May 7, 2002 letter regarding comments on the SDEIS.

1. *The Refined BRT alternative is compared to the TSM Alternative described in chapter 2 of the DEIS. The TSM alternative is inadequate as the lower-cost baseline against which the Refined BRT Alternative should be compared. The inadequacy appears to produce an advantage for the Refined BRT alternative in a comparison of transit benefits.*

   Response: See responses to comments 1-A, B, and C below.

   a. *Lack of P.M. Zipper Lane – Unlike the Refined BRT Alternative, the TSM Alternative does not include the P.M. contre-flow zipper lane on the H-1 freeway from Radford Drive to the Waiawa Interchange. The lack of a P.M. zipper lane appears to negatively affect the transit travel times in the P.M. peak from Downtown to some Leeward Oahu sites under the TSM Alternative.*

      Response: Adding the P.M. zipper lane along H-1 from Radford Drive to and through the Waiawa Interchange onto H-2 will add $109 million to the TSM Alternative costs in 2002 dollars. Since the TSM, by definition, consists of only low cost elements the P.M. zipper lane was not included.

   b. *Lesser Bus Service – The TSM Alternative has less bus service than the Refined BRT Alternative. "Bus service" refers to service provided by minibuses, standard buses, and articulated buses, but not In-Town BRT vehicles. The following table compares the bus service under the original BRT Alternative and TSM Alternative. Comparison with the original BRT Alternative is necessary because of the unavailability of "bus service" data for the Refined BRT Alternative.*

COMPARISON OF "BUS SERVICE"
UNDER ORIGINAL BRT ALTERNATIVE
AND TSM ALTERNATIVE
In 2025

	Original BRT Alternative	*TSM Alternative*
Number of "Buses" (Minibuses, Standard Buses, Articulated Buses, But Not In-Town BRT Vehicles	*730*	*601*
Annual "Bus" Revenue Miles	*26,303,500*	*20,740,000*
Annual "Bus" Revenue Hours	*1,688,300*	*1,400,000*

Sources: For the original BRT Alternative, Table 2.2-6 on page 2-18 of the DEIS and the response to question (22) on page 15 of the Communication D-840 (2000). For the TSM Alternative, Table 4.1-1 on page 4-3 of the SDEIS.

Response: As shown in the FEIS the TSM has service levels closer to the Refined LPA:

	TSM Alternative	Refined LPA
Buses in Fleet	700	794
Annual Bus Miles	23.96 M	26.01 M
Annual Bus Hours	1.61 M	1.63 M

c. *Insufficient "Semi-Exclusive" Bus Lanes – the TSM Alternative does not have enough "semi-exclusive" bus lanes. For the Alternative, the third paragraph on page 2-15 of the DEIS states in part:*

Semi-exclusive bus lanes would be placed on King Street and Beretania Street, between Middle Street and Waialae Avenue. (Semi-exclusive bus priority lanes are lanes that would be reserved for buses, although vehicles turning into and out of driveways and turning right at intersections would be permitted to use them.) These bus priority facilities would generally operate only during peak periods.

"Semi-exclusive" lanes apparently are beneficial for fast transit travel times. Illustrative of this point is that "semi-exclusive" lanes will comprise "29 percent" of the In-Town BRT alignment. See the last paragraph on page 2-11 of the SDEIS.

If "semi-exclusive" lanes are beneficial for the In-Town BRT system, then they also should be beneficial for buses under the TSM Alternative. More "semi-exclusive" bus lanes under the TSM Alternative may have resulted in better transit travel times for patronage forecasting and, consequently, increased transit ridership.[1]

[1] Other streets, including Kapiolani Boulevard and Kuhio Avenue, will have "bus priority" lanes instead of "semi-exclusive" lanes. "Bus priority" lanes will have signal and other treatments favoring buses without restricting lane use.

Response: This is a statement regarding a preference for the number of "semi-exclusive" bus lanes. The TSM in the FEIS has 12.2 lane miles of exclusive and semi-exclusive lanes, whereas the Refined LPA has 17.2 lane miles of exclusive and semi-exclusive lanes. The No Build Alternative has only one mile of exclusive bus lanes (Hotel Street). This spread between the alternatives is consistent with the goal of having distinct alternatives.

2. *The In-Town system does not directly connect Waikiki and the Convention Center. The omission seems inconsistent with the need to make the Convention Center more attractive to convention planners and attendees by providing better transit from Waikiki hotels.*

   Response: The public transit system is not designed to accommodate the surge loads that occur during major visitor events at the Convention Center. Private carriers with pre-arranged door-to door service best handle these events.

3. *In fact, the SDEIS and DEIS ignore the Convention Center as a trip attraction, despite its importance to the State economy. Table 3.3-6 on page 3-32 of the SDEIS does not list the Convention Center among the "major activity sites in the primary urban center DP area." Table 5.5-1 on page 5-4 of the SDEIS does not list the convention center among the "major destinations in the primary urban center." Moreover, the "screening of alternatives," commencing on page 2-41, of the DEIS does not even mention the Convention Center.*

   Response: The FEIS includes the Hawaii Convention Center on Table 3.3-6. The Convention Center is served by the Middle Street-UH branch with stops directly across from it. These stops are intended to serve Convention Center employees and local residents who attend events at the Convention Center. The public transit system is not designed to accommodate the surge loads that occur during major visitor events at the Convention Center. Transportation between Waikiki hotels and the Convention Center will continue to be best handled by pre-arranged services provided by private carriers.

4. *An explanation of the reason for the absence of an In-Town BRT connection between Waikiki and the Convention Center should be provided.*

   The response to question (20)(B) on page 14 of Communication D-840 (2000) indicates that a grade separation at the Kalakaua/Kapiolani intersection will be necessary to make the connection work. If that response is repeated, elaboration should be provided.

   Response: This was intentional. The In-Town BRT could not handle the surge loads that occur during major visitor events at the Convention Center. Private carriers with pre-arranged door-to door service best handle these events.

5. *The first paragraph on page 2-9 summarizes the recommendations of the Pearl City/Aiea Working Group. Basically, the Working Group recommends that transit centers be established in Pearl City and Aiea and that contra-flow bus operation during the peak periods link the transit centers with the Regional BRT at Luapele Drive. The paragraph also states: "The DTS is programming these projects into the City Capital Improvement Program (CIP) as separate projects from the BRT since they have independent utility."*

   The transit service recommended by the Pearl City/Aiea Working Group will serve the area being evaluated under the Primary Corridor Transportation Project. The capital cost, operating and

maintenance cost, and transit ridership resulting from the recommendations should be included in the FEIS for the Refined BRT Alternative. Such data are necessary to display the system-wide costs and benefits.

Response: There are a number of transit centers, park-and-rides and other transit related improvements that complement the Refined LPA that are proceeding as separate projects. These include the transit centers in Pearl City and Waimalu, as well as transit centers and/or park-and-rides in Waianae, Kaneohe, Wahiawa, Mililani, Kailua, and Kaimuki. In addition, the parking associated with the Middle Street and Iwilei Transit Centers will be implemented as separate projects from the Refined LPA.

While the capital costs for these complementary projects are not included as PCTP costs in the financial plan for the Refined LPA, they are reflected in the system-wide ridership forecasts.

As stated in the SDEIS, the transit improvements recommended by the Working Group have independent utility, indicating that the recommended improvements will be beneficial for the community with or without the BRT project. Therefore, the recommended Kamehameha Highway improvements will be assessed in detail in a separate study. As part of the Fiscal Year 2003 budget, the City Council approved the funding for the planning study for the Kamehameha Highway Transit Corridor and Transit Centers (CIP Project No. 2003043).

6. *The last paragraph on page 2-11 and first paragraph on page 2-12 states: "Along about 38 percent of the its length, the In-Town BRT system would run in transit lanes in the median of existing arterial roads (e.g., sections of Kapiolani and Dillingham Boulevards). Along 29 percent of the alignment, the system would run along the curb in semi-exclusive lanes. Semi-exclusive lanes would be shared with right-turning vehicles, and in the case of Waikiki with other buses (public and private) and trolleys. For the remaining one-third of the alignment the BRT would operate in mixed traffic."*

   A description should be provided of the plan to enforce proper use of the "exclusive" and "semi-exclusive" lanes. Enforcement appears imperative if the In-Town BRT vehicles are to achieve fast travel times.

   Response: The bus priority lanes will be clearly delineated with raised lane markers, colored pavement, and signage. Enforcement will be performed by the HPD similar to enforcement on the existing bus priority lanes on Hotel Street, Kalakaua Avenue, and the HOV and Zipper lanes on H-1 and H-2. A strict tow-away policy will also be enforced.

7. *A "semi-exclusive" lane apparently is intended to enable faster transit travel times than a "mixed traffic" lane. For practical purposes, however, both a "semi-exclusive" lane and "mixed traffic" lane will be usable by In-Town BRT vehicles and other types of vehicles, including autos. If the proper use of a "semi-exclusive" lane is not constantly enforced, then there will be no difference from a "mixed traffic" lane.*

   Response: See response to comment #6.

8. *Better justification should be provided for differentiating between a "semi-exclusive" lane and "mixed traffic" lane. If there will be no difference under actual operational conditions, then all lanes not exclusive to In-Town BRT vehicles should be deemed "mixed traffic" lanes in the FEIS and designated "general purpose" lanes in Table 2.2-4 on Page 2-21.*

Response: There is a difference in the performance of e semi-exclusive lane during periods of high congestion. During these periods, vehicles in general traffic lanes often have to wait through at least one and often several signal cycles before advancing through an intersection. During this same period, the transit vehicles in the semi-exclusive lane, will only need to wait for the right-turning vehicles to clear the intersection, then they can proceed through the intersection since there would be no traffic backed up on the other side.

9. *The 1990 AA/DEIS for the rapid transit project designates "exclusive transit lanes" on certain urban streets. Concerning the operation of those lanes, the Department of Transportation Services in 1990 responded to certain questions submitted by the Council. See page 2 of Communication D-558 (1990), Managing Director's reference "MD-7-03136."*

Basically, the 1990 responses indicate that a street lane reserved for buses and right-turning vehicles would not result in bus travel times faster than under "current" operation. The following are the questions and responses:

(3) On page 2-4, in figure 2.1 of the AA/DEIS, exclusive transit lanes are depicted on Beretania Street, Alakea Street, King Street, Kapiolani Boulevard, and Kalakaua Avenue.

(A) Please describe the planned operation of the exclusive transit lanes, especially during the peak periods.

The exclusive transit lanes depicted on Beretania Street, Alakea Street, King Street, Kapiolani Boulevard, and Kalakaua Avenue are a formalization of the de facto exclusive bus lanes currently in operation.[2] The exclusive bus lanes will be in effect for the peak period and in the peak direction only. They will be for the exclusive use of buses and right-turning vehicles. (Underscoring added)

[2] The "de facto" operation refers to the situation under which the right lane of a street is used only or mainly by buses and right-turning vehicles. Through-moving vehicles generally prefer and use other lanes to avoid the frequent stops and slow speeds of buses in the right lane.

(B) Under the operating plans of all alternatives, is transit travel time in buses based on the use of the exclusive transit lanes?

The transit travel time in buses using the exclusive transit lanes would not change because there would be no speed change as compared to the de facto condition. (Underscoring and footnote added.)

Similar to the designated transit lanes in the 1990 AA/DEIS, the "semi-exclusive" lanes for the In-Town BRT system "would be shared with right-turning vehicles, and in the case of Waikiki with other buses (public and private) and trollays." See the first paragraph on page 2-12 of the SDEIS.

Based on the Department of Transportation Services' 1990 responses then, an In-Town BRT vehicle using a "semi-exclusive" lane should experience "no speed change as compared to the de facto condition" under current operation. The current condition for buses on roadways and highways is described in the last paragraph on page 1-12 of the SDEIS. The decline of the average operating speeds of buses is described in the fourth peregraph on page 3-16 of the SDEIS.

A discussion should be provided on whether an In-Town BRT vehicle in a "semi-exclusive" lane is expected to operate at a faster speed than a bus currently operating in the right lane. If the contention is that the In-Town BRT vehicle will be faster, the reason for the departure from the above quoted 1990 responses should be specified.

Response: The conditions described in the 1990 response are different from what is being proposed in the Refined LPA. The reason the lanes were referred to as de facto semi-exclusive lanes in the 1990 response is that these lanes currently carry so many local buses which make frequent stops that many through motorists avoid them.

The proposed semi-exclusive lanes in the current plan differ in that the BRT will replace many of the local buses on the streets where semi-exclusive lanes are proposed and the BRT buses will be operating with limited stops. The dwell times at the BRT stops will also be less than today at the local bus stops, since passengers, including the disabled will be able to board from platforms at the same height as the low-floor vehicles and they will be able to enter and exit from any door. Also, the doors themselves will be wider than on the current buses. All of these factors will result in average travel speeds of 12-15 mph in the semi-exclusive lanes compared to the average bus operating speed in town of 8-9 mph today.

10. *The response to question (3)(A) on page 2 of Communication D-840 (2000) addresses bus routes under the original BRT Alternative. It states in part: "Circulator services would also be offered along the BRT route to serve passengers who find the station spacing of the BRT inconvenient for their trip."*

The statement or a similar one should be added to the bus route description for the Refined BRT Alternative on page 2-5 of the SDEIS.

Response: A statement to this effect is included in Chapter 2 of the FEIS.

11. *A discussion also should specify whether the circulator bus service will be provided on portions of the In-Town BRT alignment where only one general purpose traffic lane will be available per direction.*

Response: Local trunk and circulator bus service will be offered along the BRT route to serve passengers who find the station spacing of the BRT inconvenient for their trip. To lessen the impact of local trunk and circulator buses on these segments, treatments such as bus bays and curb lane widening are proposed as part of the Refined LPA.

12. *The discussion also should explain the "0" or very few "bus arrivals" at In-Town BRT stations on Dillingham Boulevard, the King Street section Koko Head of the Alapai stop, the Kapiolani Boulevard section Ewa of the Isenberg stop, and Kuhio Avenue. See Table 4.1-8 on Page 4-9.*

Response: Table 4.1-8 in the SDEIS is now Table 4.3-7 in the FEIS. This table identifies the mode of access to the proposed In-Town BRT. The bus mode refers to riders that access the BRT by transferring from a bus. In Table 4.3-7, there are several stations that exhibit high bus to BRT transfers: Middle Street, Kaliht, Union Mall, Alapai Transit Center, Thomas Square, McKinley High School, Isenberg, University/King, UH-Manoa, Cooke Street, Saratoga Road, and Kapahulu Avenue. These stations are located where other local bus routes intersect with the In-Town BRT routes. Other locations have high passenger activity but little bus to BRT transfer activity.

Examples of these locations are Honolulu Community College, Iwilei Transit Center, Chinatown, Iolani Palace, Ala Moana Center (Kaplolani), Ala Moana Park (Ala Moana Blvd), and several others.

13. *The first paragraph on page 2-25 discusses the "final technology selection for In-Town BRT." A portion reads: "During the next year or so, it is enticipeted that both the embedded plate and hybrid diesel/electric technologies will advance to a state where they will be considered service proven. At that time, e decision on technology mey be mede."*

    a. *A "year or so" does not seem sufficient to determine whether a technology really is "service proven." Support should be provided for the contention that a technology can be "service proven" so soon. A description also should be provided of the fectors a technology must comply with in order to be considered "service proven."*

    Response: Since implementation of STREAM technology in Trieste, Italy was delayed, the decision on which technology to use for the In-Town BRT in Honolulu will be postponed until 2008. By this time STREAM and possibly other embedded plate systems will have been in revenue service for over 2-5 years, which is ample time to consider them service proven.

    A system is considered "service-proven" when the vehicles and associated on-board technology, including all major subsystems, have been successfully proven in current, daily, year-round passenger service operation for a period of approximately two years. Successful passenger service operation means that the responsible transit agency has verified that the manufacturer has met original expectations in writing. Experience of full-scale equipment integration operating on a test track may be considered as equivalent to passenger service operation. The manufacturer must be able to demonstrate the capability to successfully support the operation and maintenance of the vehicle and associated systems by verification of successful support of a similar system of equivalent magnitude and complexity. The manufacturer's key engineering leaders who are (or will be) working on the system shall demonstrate direct technical experience with the specific vehicle and propulsion technology. The manufacturer must also have available facilities sufficient to produce and supply the vehicles, the associated on-board vehicle subsystems, and the power distribution equipment. Facilities shall include a fully equipped manufacturing plant with adequate and available production capacity and test facilities to test all critical subsystems as full-scale production units.

    b. *The City Administration is requesting design and construction funds for the In-Town BRT system in the fiscal year 2002-03 capital budget bill, although a technology has not been selected as yet. A justification of the funding request should be provided.*

    Response: The "technology" selection is not a prerequisite for the initial implementation of In-Town BRT because any "technology" to propel the bus vehicles will be compatible with the In-Town BRT operation and service. The SDEIS included detailed assessments of the various bus vehicle propulsion and electrical power delivery technologies to disclose their unique environmental effects.

    c. *A description of the roadway construction work necessary for each technology should be provided. Responses to question (37) on peges 23 and 24 of Communication D-840 (2000) summarize well the work needed for the embedded plate technology and hybrid propulsion technology. More construction work appears to be necessary for the embedded plate technology*

    Response: Descriptions of the construction required with each technology is included in Chapter 2 of the FEIS. The EPT would require more construction work than hybrid-electric technology.

14. *Figure 2.5-1 on page 2-27 shows the project implementation schedule. The "Kalihi segment," "Waikiki segment," and "Kakaako Makai segment" of the In-Town BRT system are programmed to commence in 2002.*

    In the fiscal year 2002-03 capital budget bill, however, the City Administration is requesting design and construction appropriations for the "Iwilei to Waikiki alignment."

    An explanation should be provided on why funding is not being requested for the "Kalihi segment" in the fiscal yeer 2002-03 capitel budget bill. The "Kalihi segment" seems the obvious sterting point since Middle Street will serve as the beginning of the alignment and storage/maintenence yard for In-Town BRT vehicles.

    Response: The Iwilei-Waikiki segment is scheduled as the first increment of the In-Town BRT since:
    - It could operate as a stand alone line as well as part of the In-Town system;
    - It could help connect many existing and planned major travel generators along the waterfront that are not well served by transit now; and
    - It is very cost- effective in terms of cost per mile of construction.

15. *Sterting at Middle Straet appears to be necessary for the embedded plate technology. The first full peragraph on page 5-3 states: "Additionally the embedded plate vehicles need to trevel in the transit lane where the embedded plates are located (other than for short distances where bettery back-up can be used)."*

    Response: A decision on whether to use EPT will be made in 2008. In the interim hybrid-electric technology will be used. This will permit phasing construction of the In-Town BRT starting with the Iwilei-Waikiki branch.

16. *Figure 2.5-1 on page 2-27 shows thet the "Weikiki segment" and "Kakaeko Makai segment" are programmed to be commenced and completed earlier than the "Midtown-UH segment" and "Kekaako Mauka segment." This seems disjointed.*

    An explanation should be provided on why the In-Town BRT segments are not progremmed for completion in continuous segments from Middle Street.

    Response: See response to comment #14, above.

17. *The lest paregreph on page 4-1 states: "The Refined BRT Alternative would improve the person carrying ability within the Urban Core by an everege of 11 percent over the No-Build Alternative. To get an equivalent increase in general-purpose throughput, two roadway lanes in each direction*

would need to be provided in the Urban Core, which is impossible to do without major displacements." The method of calculating the "two roadway lanes in each direction" is not included in the SDEIS or Travel Forecasting Results Report.[3]

Experimentation indicates that the calculation is based on the data in Table 4.2-1 on page 4-12, concerning the "projected 2025 A.M. peak hour person carrying capacity at selected screenline locations," the average occupancy of an auto, and the capacity of a freeway lane designed for a speed of 50 miles per hour at level of service E. [4]

The statement that the No-Build Alternative will require "two roadway lanes in each direction" is inappropriate for a technical document. The calculation method is not provided and the imagery of a three-dimensional four-lane highway is a misrepresentation.

[3] *Parsons Brinckerhoff Quade & Douglas, Inc., prepared for the City Department of Transportation Services, Technical Memorandum on Travel Forecasting Results, Product 7-19, October 2000.*

[4] *The formula appears to be as follows: Number of Lanes = [Refined BRT Alternative Person Carrying Capacity Across Screenline in Table 4.2-1 – No-Build Alternative Person Carrying Capacity Across Screenlines in Same Table) / 1.4 Average Persons Per Auto Occupancy] / 1,900 Passenger Cars Per Hour Per Lane Of Capacity Of One Freeway Lane Designed For 50-MPH At Level Of Service E.*

Response: The FEIS discusses this issue in Section 4.4.2,3),c. Table 4.4-7, Person Throughput Capacity on Kapiolani Boulevard between Pensacola Street and Atkinson Drive, compares the three Alternatives. The transit persons per hour are based on the projected bus and BRT service, while auto persons per hour are based on the projected P.M. peak hour vehicular assignment multiplied by 1.2 persons per vehicle. The average bus and BRT occupancies are shown as 70 and 100 persons per vehicle, respectively. Based on these estimates, the total persons per hour are calculated. As shown in Table 4.4-7, the Refined LPA has the potential to carry 8 to 12 percent more persons per hour than the TSM or No-Build Alternatives along this segment during the P.M. peak hour.

18. *The second paragraph on page 4-5 states: "The Kakaako Makai Branch of the Refined BRT would account for 7,400 of the In-Town BRT daily trips, or about 9 percent of the total BRT boardings." The last paragraph on page 4-2, however, states: "This [Kakaako Makai Branch] alignment, beginning at the Iwilei Transit Center with a terminus in Waikiki would add approximately 3,700 transit boardings per day to the total transit boardings per day to the total transit boardings for the In-Town BRT."*

The discrepancy in the Kakaako Makai Branch trips should be clarified.

Response: The two statements in the SDEIS are not a discrepancy. The first statement was referring to the total number of boardings on the Kakaako Makai branch. The second statement was referring to the number of these boardings that would be new trips in addition to the trips on the In-Town BRT system if there were no Kakaako Makai branch. The more recent forecast of transit boardings is shown in Table 4.3-6 of the FEIS.

19. *The fourth paragraph on page 4-6 describes Table 4.1-6 on "transit travel times within the urban core." A sentence reads: "These travel times are a composite of A.M. and P.M. peak period time in each corridor."*

An explanation should be provided of (A) how "composite" travel time was determined and (B) why "composite" travel time was used.

More importantly, Table 4.1-6 should provide the 'non-composited" A.M. peak and P.M. peak transit travel times for each of the origin-destination pairs.

Response: Table 4.1-6 in the SDEIS is now Table 4.3-5 in the FEIS. The table has been revised to show only the P.M. peak hour time period and now shows total transit travel time, which includes out of vehicle time (wait time, walk time, transfer time) as well as in-vehicle time.

20. *Table 4.1-6 on page 4-7 shows the "Downtown-Kapolei*[5] *transit travel times in 2005 for the Alternatives. The following are the travel times.*

IN-VEHICLE TRANSIT TRAVEL TIMES
DOWNTOWN TO KAPOLEI
IN PEAK PERIOD (In 2025)

	No-Build	TSM	Refined BRT
Downtown to Kapolei	53.7 minutes	45.5 minutes	36.8 minutes

Source: Table 4.1-6 on page 4-7 of the SDEIS.

The title of table 4.1-6 indicates that it provides "in vehicle time," apparently meaning only the time spent riding a transit vehicle. If that interpretation is correct, then transfer time is not included in the table.

[5] *"Downtown" is the approximate area of "Fort St. Mall between Hotel & King" and "Kapolei" is the residential area "bounded by Farrington/Kealaneni/Kameeha/Ft. Barette." See the response to question 25(B) on page 17 of Communication D-840 (2000).*

Response: See response to comment #19.

21. *Logic indicates that the "Downtown to Kapolei" trip under the Refined BRT Alternative will require a transfer at the Middle Street transit center from an In-Town BRT vehicle to an express bus. Logic also indicates that the same trip under the No-Build Alternative and TSM Alternative will not require a transfer. A person is assumed able to ride an express bus directly from Downtown to Kapolei under either Alternative.*

The response to question (23)(D) on page 15 of Communication D-840 states that, under the patronage forecasting methodology, a "transfer penalty of 6 minutes was used." A six-minute transfer time appears reasonable for a P.M. outbound trip because of the longer express bus headways, but too much for an A.M. inbound trip because of the two-minute In-Town BRT headways. Thus, in the following, a range of two to six minutes, signifying transfer time, is added to the in-vehicle travel time for the Refined BRT Alternative.

TRANSIT TRAVEL TIMES
DOWNTOWN TO KAPOLEI
IN PEAK PERIOD
(In 2025)

	No.-Build In-Vehicle Time)	TSM (In-Vehicle Time)	Refined BRT (In-Vehicle Time Plus 2- To 6-Minute Transfer Time)
Downtown to Kapolei	53.7 minutes	45.5 minutes	36.8 to 42.8 minutes

Table 4.1-6 should include the transfer time for the "Downtown to Kapolei" trip under the Refined BRT Alternative. If the times in the above table are correct, they should be included in the FEIS. If not, the correct times should be provided.

Response: See response to comment #19.

22. *Table 4.1-6 on page 4-7 shows the "Downtown-Waikiki"[6] transit travel times in 2005 for the Alternatives. The times are about the same for the TSM Alternative and Refined BRT Alternative.*

IN-VEHICLE TRANSIT TRAVEL TIMES
DOWNTOWN TO WAIKIKI
IN PEAK PERIOD
(In 2025)

	No-Build	TSM	Refined BRT
Downtown to Waikiki	18.7 minutes	15.8 minutes	15.7 minutes

Source: Table 4.1-6 on page 4-7 of the SDEIS.

The routes of the "Downtown-Waikiki" trip under the No-Build Alternative and TSM Alternative should be described. Of interest is whether the routes operate in a limited stop or trunk route manner

[6] "Downtown" is the approximate area of "Fort St. Mall between Hotel & King" and "Waikiki" is the approximate area "bounded by Kalakaua/Kuhio/Kalulani/Duke's Lane." See response to Question 25(B) on Page 17 of Communication D-840 (2000).

Response: Table 4.1-6 in the SDEIS is now Table 4.3-5 in the FEIS. An explanation of the difference in the tables is contained in the response to question #19. Additionally, the SDEIS used year 1997 as its base year, where the FEIS uses year 2000 as its base year. This change was made to be consistent with the Oahu Metropolitan Planning Organization (OMPO) TOP 2025 that used year 2000 as its base year. Since the year 2000 bus system contains more limited stop bus routes, the No-Build Alternative in the FEIS also contains more limited-stop buses than in the SDEIS. As a result, the projected year 2025 transit travel time difference between the No-Build Alternative and the Refined LPA are closer in the FEIS than in the SDEIS.

23. *Table 4.1-6 on page 4-7 shows that the "Downtown – Kalihi"[7] transit travel times in 2005 for the Alternatives. The times are about the same.*

IN-VEHICLE TRANSIT TRAVEL TIMES
DOWNTOWN TO KALIHI
IN PEAK PERIOD
(In 2025)

	No-Build	TSM	Refined BRT
Downtown to Kalihi	7.9 minutes	6.8 minutes	5.1 minutes

Source: Table 4.1-6 on page 4-7 of the SDEIS.

a. *The routes of the Downtown-Kalihi" trip under the No-Build Alternative and TSM Alternative should be described. Of interest is whether the routes operate in a limited stop or trunk route manner.*

[7] "Kalihi" is the approximate area "bounded by Waikemilo/Kalihi/Dillingham/McNeill." See the response to questions (25)(B) on page 17 of Communication D-840 (2000).

Response: See response to comment #22.

b. *A discussion should be provided of the transit travel time under the Refined BRT Alternative if Dillingham Boulevard is assumed to have two general-purpose lanes in each direction instead of one exclusive In-Town BRT lane/one general-purpose lane in each direction. The intent is to examine whether an In-Town BRT vehicle will lose substantial travel time if operating in a general-purpose lane.*

Response: Table 4.3-5 has travel times for the three proposed alternatives. Travel time differences on the segment between Middle Street Transit Center and Downtown are relatively small for the three alternatives. This is due to the short distance (about 3 miles) for the segment evaluated. This segment is the only In-Town BRT segment where all BRT lines are running on the same alignment. The effective headway between BRT vehicles during the peak periods is less than 1 minute. In this environment, the reliability of transit movement is important. On the average, the No-Build and TSM Alternatives could maintain transit speeds that are only slightly slower (3 to 4 mph) than the Refined LPA. However, this may not be the condition throughout the peak period. A momentary breakdown of flow during the peak period has the potential of disrupting the high throughput of the BRT vehicles. The exclusive BRT lanes will provide more consistent travel times for the BRT vehicles, allowing them to maintain their high rate of flow as they transition from the freeway zipper lane to the In-Town system.

24. *The following table compares the in-vehicle transit travel times from Downtown to UH-Manoa[8] for the Alternatives under the SDEIS and the Travel Forecasting Results Report.*

[8] "UH-Manoa" is the "U.H. Upper Campus." See the response to question (25)(B) on page 17 of Communication D-840 (2000).

COMPARISON BETWEEN SDEIS AND TRAVEL FORECASTING RESULTS REPORT
IN-VEHICLE TRANSIT TRAVEL TIMES
DOWNTOWN TO UH-MANOA
IN 2025

	No-Build	TSM	BRT
SDEIS (Composite Peak Period)	27.8 minutes	23.7 minutes	14.2 minutes
Travel Forecasting Results Report P.M. Peak Period	13.7 minutes	13.7 minutes	12.6 minutes

Sources: Table 4.1-6 on page 4-7 of the SDEIS. Table 4-6 on page 4-5 of the Travel Forecasting Results Report.

The correct "Downtown to UH-Manoa transit times should be provided in Table 4.1-6. An explanation for the discrepency also should be provided.

Response: The updated transit travel times are shown in Table 4.3-5 in the FEIS. The latest results are based on the refined travel demand model from the Oahu Metropolitan Planning Organization (OMPO). This model was used for the TOP 2025 regional transportation plan update. When this refined model became available, the Primary Corridor Transportation Project switched to it to maintain consistency with OMPO.

25. *Table 4.1-6 on page 4-7 does not describe the bus routes from "Downtown to UH-Manoa" for the No-Build Alternative or TSM Alternative.*

The routes of the "Downtown to UH-Manoa" bus trip under the No-Build Alternative and TSM Alternative should be described. Of interest is whether the routes operate in a limited stop or trunk route manner with or without a transfer at University Avenue to the UH campus.

Response: The travel time shown in Table 4.1-6 in the SDEIS and the updated travel time shown in Table 4.3-5 in the FEIS reflect the express bus Route A which is a limited stop route.

26. *Much of the transit ridership and costs of the Refined BRT Alternative is due to the increased bus fleet and service supply. The Refined BRT Alternative has a total of 336,700 daily transit trips, according to Table 4.1-2 on page 4-4. Of that amount, only 75,600 or 22.5 percent involve a boarding on an In-Town BRT vehicle, according to Table 4.1-4 on page 4-5. The other 261,100 or 77.5 percent of the trips apparently involve a bus only ride. The following places the data in tabular form.*

TOTAL DAILY TRANSIT TRIPS
TRIPS WITH IN-TOWN BRT BOARDINGS AND BUS-ONLY TRIPS
(In 2025)

Total Daily Trips	Trips With In-Town BRT Boardings	Bus-Only Trips (Trips Without In-Town BRT Boardings)
336,700 100%	75,600 22.5%	261,100 77.5%

Sources: Table 4.1-2 on page 4-4 and Table 4.1-4 on page 4-5 of the SDEIS.

Chapter 4, however, does not provide data on transit travel times involving bus-only trips.

Because of the importance of the bus service assumed in the SDEIS, transit travel times between selected origins and Downtown should be provided for trips that will not involve a boarding on the In-Town BRT system.

Response: Table 4.2-1 in the FEIS shows projected daily system-wide transit trips. As in the earlier versions, this table includes all linked trips made by transit. One linked transit trip describes a trip made from origin to destination, regardless of the number of transfers made. Boardings describe the number of times someone boards a particular route. Because one linked trip may use more than one transit route, there are typically more boardings than linked transit trips shown in system-wide ridership. The BRT is not a separate system but part of the comprehensive island-wide transit system. The function of the BRT routes is to provide frequent, higher speed service in heavily travel corridors. The transit system is designed to interconnect with the BRT routes using local and circulator buses.

27. *Chapter 4 does not include data on auto travel times under the Refined BRT Alternative.*

The following tables compare in-vehicle transit travel times and auto travel times under the Refined BRT Alternatives between assumed suburban transit facilities and Downtown during the peak hours. Sources of the in-vehicle transit travel times and auto travel times are the tables attached to Communication D-840 (2000) in response to question (26) on page 18.[9] The transit travel time table attached to the Communication, however, does not appear to include the transfer times, when applicable, for the transit trips.[10] The table also does not appear to include wait times at the beginning of the transit trips and walk times at the end of the trip.

The tables, with adjustments for transit transfer times if appropriate, should be included in the FEIS. The data are important for public awareness of the differences in travel times under the transit and auto modes.

[9] *Travel times between the Pearl City/Aiea transit center and Downtown are not included in the following tables. The times set forth in the tables attached to Communication D-840 (2000) apparently assumed the transit center to be at the Kam Drive-In site. That site is no longer under consideration for a transit center.*

[10] *The table is entitled "In-Vehicle Transit Travel Time To and From Downtown (TAZ 255) (underscoring added)." A transfer adds time to a trip. The response to question (23)(D) of Communication D-840 (2000) states: "[a] transfer penalty of 6 minutes was used" in the patronage forecasting methodology.*

The tables also may serve another purpose. Policy makers and the public may review the travel times, especially auto travel times, and judge whether the times are logical for the hypothetical traffic situation in 2025 based on experience in actual current traffic.

COMPARISON OF IN-VEHICLE TRANSIT TRAVEL TIME AGAINST AUTO TRAVEL TIME UNDER REFINED BRT ALTERNATIVE TO DOWNTOWN DURING A.M. AND P.M. PEAK HOURS IN 2025

A.M. Peak	In-Vehicle Transit Travel Time	Auto Travel Time	Difference Total Transit Travel Time Minus Auto Travel Time
Kapolei Transit Center	37.6 mins.	43.8 mins	(6.2) mins.
Waianae Transit Center	67.6 mins.	79.1 mins.	(11.5) mins.
Waipahu Transit Center	26.5 mins.	39.3 mins.	(12.8) mins.
Kaneohe Transit Center	29.2 mins.	24.4 mins.	4.8 mins.
Wahiawa Town Transit Center	37.0 mins.	46.3 mins.	(9.3) mins.
Mililani Town Transit Center	35.4 mins.	43.5 mins.	(8.1) mins.
Kailua Transit Center	26.2 mins.	27.5 mins.	(1.3) mins.
Wahiawa Park – and -Ride	32.5 mins.	44.4 mins.	(11.9) mins.
Mililani Mauka Park – and – Ride	30.8 mins.	42.5 mins.	(11.7) mins.
Royal Kunia Park – And – Ride	28.1 mins.	39.9 mins.	(11.8) mins.
Hawaii Kai Park – And – Ride	25.5 mins.	21.6 mins.	3.9 mins.

P.M. Peak	In-Vehicle Transit Travel Time	Auto Travel Time	Difference Total Transit Travel Time Minus Auto Travel Time
Kapolei Transit Center	41.0 mins.	42.1 mins.	(1.1) mins.
Waianae Transit Center	68.6 mins.	76.9 mins.	(8.3) mins.
Waipahu Transit Center	32.5 mins.	40.5 mins.	(8.0 mins.
Kaneohe Transit Center	32.4 mins.	24.2 mins.	8.2 mins.

Wahiawa Town Transit Center	37.7 mins.	44.3 mins.	(6.6) mins.
Mililani Town Transit Center	39.5 mins.	41.1 mins.	(1.6) mins.
Kailua Transit Center	28.0 mins.	22.6 mins.	5.4 mins.
Wahiawa Park – and –Ride	39.0 mins.	41.4 mins.	(2.4) mins
Mililani Mauka Park – and – Ride	33.2 mins.	39.8 mins.	(6.6) mins.
Royal Kunia Park – And – Ride	37.9 mins.	40.8 mins.	(2.9) mins.
Hawaii Kai Park – And – Ride	28.8 mins.	22.3 mins.	6.5 mins.

Response: In response to your comments, auto travel times for the same origins and destinations as the transit travel times have been added to Chapter 1 of the FEIS.

28. *The first paragraph on page 4-13 discusses the "vehicle miles traveled" and "vehicle hours of delay" for all Alternatives. The paragraph notes that the Refined BRT Alternative will have fewer "vehicle hours of delay" than the No-Build Alternative. The paragraph, however, does not compare the Refined BRT Alternative with the TSM Alternative regarding "vehicle hours of delay."*

Table 4.2-2 on page 4-13 provides the following data on "vehicle hours of delay" during the peak periods for the TSM Alternative and Refined BRT Alternative.

COMPARISON OF PROJECTED PEAK PERIOD VEHICLE HOURS OF DELAY FOR TSM ALTERNATIVE AND REFINED BRT ALTERNATIVE In 2025

	Time Period	TSM Alternative	Refined BRT Alternative
Vehicle Hours of Delay	A.M. Peak	112,708	114,785
	P.M. Peak	124,036	128,477
	Total Peak	236,744	243,261 (As is in the SDEIS.)

Source: Table 4.2-2 on page 4-13 of the SDEIS.

The discussion should indicate that the Refined BRT Alternative will have more "vehicle hours of delay" in the peak periods than the TSM Alternative.

Response: Table 4.2-2 in the FEIS shows the updated VMT (Vehicles Miles of Travel) and Vehicle Hours of Delay (VHD) results. The LPA will have fewer Vehicle Hours of Delay than either the No-Build or the TSM Alternative in the A.M., P.M., and Off Peak.

29. *Table 4.2-7 on page 4-19 displays the levels of service during the peak periods at various intersections.*

The table should include levels of service for the following:

(A) Intersections adjacent to Regional BRT transit centers/park-and-ride facilities that are expected to attract substantial bus trips; and

(B) More Dillingham intersections; and

(C) Kapiolani Boulevard intersections situated Koko Head of the Kalakaua Avenue intersection.

Response: (A) Many of the transit centers and park-and-rides that will be used by the Regional BRT are proceeding as independant projects that will be built even without the BRT as a complement to the hub-and-spoke program. Separate environmentel assessments, including traffic impact analyses, ere either currently being prepared or will be preparad for these transit centers and park-and-rides.

(B) The Dillingham Boulevard corridor has been extensively studied for the FEIS. Section 4.4.2-1) is devoted to this corridor. Table 4.4-5 in the FEIS includes the traffic analysis of intersections along Dillingham Boulevard.

(C) Kapiolani Boulevard, Koko Head of Kalakaua Avenue, is considered to be equal in all three Alternatives since there is no lane priority for BRT vehicles between Atkinson Drive and University Avenue. In all three Alternetives therefore, the same treffic level of service will exist influenced by the three intersections leading into Waikiki; Kapiolani Boulevard Intersecting with Kalakaua Avenue, McCully Street, and University Avenue.

30. *Table 4.1-8 on page 4-9 shows the "drive" mode of arrivals at In-Town BRT stations. Table 4.3-1 on page 4-23 shows the number of perk-end-ride stalls at In-Town BRT stations. The following table combines the dete.*

IN-TOWN BRT STATIONS
DRIVE MODE OF ARRIVALS AND NUMBER OF PARKING STALLS
(In 2025)

Station	Drive Arrivals	Perking Stells
Middle Street	1,691	1,000
Honolulu Community College	307	300 (For "Kalihi Perk – and – Ride")*
Iwilei	305	300
Seratoga	1,276	?

* *See the response to question (30) (A) on page 20 of Communication D-840 (2000). Regarding the Kalihi park-and-ride facility, the response stetes: "The park-and-ride facility is located in the vicinity of Honolulu Community College."*

Sources: Table 4.1-8 on page 4-9 end table 4.3-1 on page 4-23 of the SDEIS.

All "drive arrivals" at each station appear to be "park-and – ride arrivels rather than "kiss-end-ride" arrivals. This conclusion is reached because only stations with perking stalls heve "drive arrivels."

a. *Justification for Iwilei end Honolulu Community College Park- and-Ride Facilities – The Iwilei end Honolulu Community College park-and-ride facilities are very near Downtown and relatively neer other major urban employment ereas. According to the response to question (30) (B) on page 20 of Communicetion D-840 (2000), the City Administration expects people to drive to those facilities, park their autos, end then ride an in-Town BRT vehicle to their destinations. The City Administration states: "Since downtown parking is not paid for or provided by ell employers, some employees would choose to park in lower-priced peripheral parking end use transit to complete their journey to work." This strategy for park-and-ride facilities so near Downtown seems inconsistent with the intent of diverting people from autos to transit and reducing auto traffic congestion in the urban core.*

Better justification for the Iwilei end Honolulu Community College park-end-ride facilities should be included in the FEIS so that policy makers and the general public may decide if the facilities ere necessery.

Response: The HCC perk-and-ride facility has been dropped from the FEIS. The park-and-ride at the Iwilei Transit Center is still viewed as a way to intercept motorists at the perimeter of Downtown and by capturing these autos outside of Downtown reducing congestion and freeing up land in Downtown for more productive and pedestrian friendly uses.

b. *Enforcement of Honolulu Community College Perk-And-Ride Facility – As the previous discussion indicates, the City Administration intends the Honolulu Community College park-and-ride facility to be used to intercept Downtown employees who drive to work. Logic, however, indicates that the facility will be very attractive to Honolulu Community College students.*

A discussion should be provided on the plen to enforce the proper use of the Honolulu Community College park-and-ride facility. The discussion should describe the plan for preventing e student from parking the student's auto at the facility and welking to attend class.

Response: The Honolulu Community College Park-and-Ride has been dropped from the project.

c. *Enforcement of Iwilei Park-and-Ride Facility – The Stete is planning to construct e civic center near the Iwilei park-and-ride facility. Additioneily, some businesses operate within walking distence of the facility.*

A discussion should be provided on the plan to enforce the proper use of the Iwilei perk-end-ride fecility. The discussion should describe the plen for preventing en employee at the Iwilei civic center or nearby business from parking the employee's auto at the facility and walking to work.

Response: Parking at the park-and-rides will not be free. There will be a graduated pricing structure such that parking closer in is more expensive than at outlying areas. The

cost of parking at the Iwilei Transit Center will be one form of disincentive to keep close-by workers from using the garage. Additionally, parkers will have to get their parking tickets validated by the bus driver as proof of having used the transit system.

d. *Justification for Apparent Saratoga Park-And-Ride Facility – The response to question (27)(B) on page 19 of Communication D-840 (2000) states in part: "The travel demand analysis assumes the potential use of the Hale Koa garage and/or future garage at Ft. DeRussy as a park-and-ride (sic) so that new parking could be reduced at new hotel sites."*

It does not seem logical that a person in Waikiki would drive to the Saratoga station to access the In-Town BRT system, especially since the loop on Kalakaua Avenue and Kuhio Avenue makes the system easily accessible from almost everywhere in Waikiki. A better justification for the Saratoga park-and-ride facility and number of "drive" arrivals should be provided.

If the assumption is that the In-Town BRT system will be ridden by hotel guests who park their rented autos at the park-and-ride facility, then elaboration should be provided. The question is: why would they choose transit rather than the rented autos for their trips?

If the assumption is that visitor industry employees residing outside Waikiki will drive their autos to the park-and-ride facility and ride the In-Town BRT system to work, then justification for such use of the facility should be provide. Under that assumption, the facility would seem to serve as an auto trip generator rather than an auto trip reducer.

Response: The Saratoga Park-and-Ride facility is not a City project nor part of the Refined LPA. If the Army elects to proceed with the Saratoga Park-and-Ride it will be their project.

31. *The Transportation For Oahu Plan: TOP 2025[11] adopted by the OMPO Policy Committee includes a Fort Armstrong Tunnel project that will enable autos to travel through Sand Island to the Kakaako makai area.*

The Travel Forecasting Results Report includes ridership data for a BRT Alternative with the "Sand Island Scenic Parkway." A component of the "Parkway" is a Fort Armstrong Tunnel to the Kakaako makai area. The data indicate that the BRT with Sand Island Scenic Parkway Alternative will have 22,800 daily transit trips less than the original BRT Alternative without the Parkway. See table 4-2 on page 4-2 of the Travel Forecasting Results Report.

[11] Carter Burgess, prepared for the Oahu Metropolitan Planning Organization and its participating agencies, Transportation For Oahu Plan: TOP 2025 (Honolulu: 2001), table 4-1, page 4-5.

Response: Sand Island Scenic Parkway is no longer part of the PCTP. The Fort Armstrong Tunnel and other TOP 2025 Projects are reflected in the ridership and traffic impact analyses for all of the Alternatives.

32. *Although the surface portion of the Sand Island Scenic Parkway is not included in TOP 2025, the data in the Travel Forecasting Results Report lead to a reasonable conclusion that a Fort Armstrong Tunnel will likely reduce transit ridership.*

a. *Since the Fort Armstrong Tunnel remains in TOP 2025, a discussion should be provided on whether the ridership forecast for the Refined BRT Alternative assumes the existence of the Tunnel in 2025. If the forecast does not assume the existence of the Tunnel, the reason for excluding the Tunnel from the assumption should be provided.*

Response: See response to comment #31.

b. *A discussion also should be provided on how the Kakaako exit of the Fort Armstrong Tunnel will interface with the "Kakaako Makai" alignment of the In-Town BRT system.*

Response: Resolution of design interface issues associated with the Fort Armstrong tunnel will occur once the tunnel advances to the next phase of design.

Leakage Of Federal New Start Funds

33. *Pages 5-18 and 5-19 discuss the construction economic impacts of the federal new start funds for the Refined BRT Alternative. The impact is based on the expenditure of $147 million in 1998 dollars of federal new start funds.*

The discussion should state whether the $147 million was adjusted to eliminate the portion of federal new start funds that, at least in theory, should be allocated to the following:

(A) Materials, supplies, equipment, and services imported into the State or provided out-of-state;

(B) Profit retained by out-of-state contractors; and

(C) Taxes.

If the construction impact analysis was performed without the adjustments, the discussion and tables should reflect the expenditure of approximately adjusted federal new start funds.

Response: An adjustment to eliminate out of state costs is already reflected in the construction economic impact calculations.

Consideration Of Federal New Start Funds Actually Expended For Construction

34. *According to the fifth paragraph on page 6-10, some City general obligation bonds will have to be expended for construction as an advance for federal new start funds. When the federal new start funds are reimbursed to the City, the funds apparently will not be used for more construction. Instead, the funds apparently will be used in subsequent years for "bus replacement."*

The amount of federal new start funds reimbursed to the City for the advanced City general obligation bonds should not be inputted for the construction economic impact analysis. As indicated previously, those funds apparently will be used for bus replacement, not construction, and, according to the second full paragraph on page 5-17: "Buses ... are assumed to be procured from outside the State."

The amount of local general obligation bonds advanced for construction also should not be factored in the economic impact analysis. "This is because local funds invested in the project ... would likely be spent in some other manner within the local economy – with similar multiplied impacts – in the absence of investment in the primary transportation corridor." See the last paragraph on page 5-18.

Response: The New Starts funds are still considered by FTA to be funding the eligible parts of the project for which the City advanced funds, even though for cash flow purposes they are shown in the timeline as funding bus replacements. Essentially, when the FTA New Starts funds are received in subsequent years they are freeing up local funds to be used for funding bus replacements in those years.

Business Displacements And Property Acquisitions

35. *Table 5.2-1 on page 5-21 indicates that the Refined BRT Alternative may result in up to 17 total business displacements and up to 47 partial business displacements.*

(A) The businesses that may be displaced and their addresses should be identified.

(B) Other necessary property acquisitions that do not require business displacements should also be identified.

Response: The FEIS Section 5.2 discloses all the businesses, institutions and residences affected by right-of-way requirements. The adjacent street will be named, but not the full address. The impact analysis of the FEIS discusses whether the affected business or institution would be fully displaced (i.e., need to be relocated) or partially affected, such as losing parking or landscaping.

Most property acquisitions (full or partial) affect an existing land use (business, institution, etc.). Therefore, the FEIS displacements section discloses all parcels affected by additional right-of-way.

Noise Impact Of Aloha Stadium Transit Center/Park-And-Ride

36. *Section 5.6, commencing on page 5-32, discusses noise impacts.*

The Section, however, does not address the noise impact of the Aloha Stadium transit center/park-and-ride facility on the nearby Halawa Valley and Mekelepe residential communities. More bus and auto activity logically will occur at the transit facility because the Luapele Drive ramp replaces two others and the number of park-and-ride stalls increases to 1,000 from 500.

Response: The operations of the Aloha Stadium Transit Center and its potential noise impact on the nearby Puuwai Momi and Halawa Valley residential communities have been assessed and will be included in Section 5.6 of the FEIS. The noise sources associated with the transit center that were considered in the assessment are: (1) on-site BRT vehicles idling within the Transit Center; and (2) the off-site movement of BRT vehicles and autos traveling to the Transit Center. The projected transit center noise levels considered both the diesel and hybrid diesel/electric vehicles. An analysis was conducted at the nearest noise sensitive receivers at the Puuwai Momi Apartments and the single-family residences in Halawa Valley Estates. There would be moderate noise impacts at the Puuwai Momi Apartments, Buildings 1,3, 4, and 5 with either the diesel or the hybrid diesel/electric vehicle. Property line noise barriers would be effective in mitigating the noise impacts from the Aloha Stadium Transit Center to the Puuwai Momi Apartments. The noise barrier would be located at the rear of Buildings 1, 3, 4 and 53 and could incorporate doors to allow continued access from Salt Lake Boulevard to the rear of these buildings. There will be no impacts to the Makalapa Manor residential community and the single family homes in Halawa Valley Estates. In addition, there will be moderate impacts from both the diesel and hybrid technologies at the homes on Luaole Place by the proposed Luapele Drive ramp. Noise barriers

would not be feasible in mitigating the noise impacts at the single-family residences on Luaole Place, because the barrier would interfere with traffic and pedestrian movements. Interior sound insulation of the affected homes could be a reasonable alternative to a noise barrier.

Direct Energy Impact From "Vehicle Hours Of Delay"

37. *Section 5.9.1 commencing on page 5-39 discusses the "diract energy (operational)" impact. The fifth paragraph on page 5-39 states:*

In assessing the direct energy impact, the following factors were used:

- *Annual vehicle miles traveled (VMT) for automobiles, trucks, buses, and In-town Town [sic] BRT vehicles.*
- *Fuel consumption rates by vehicle type.*

The statement is silent concerning "vehicle hours of delay."

The discussion should clarify whether the amount of "vehicle hours of delay" was used to determine the direct energy impact of each Alternative. If not, the discussion should explain the reason for the omission.

Response: This methodology is based on the requirements of the Clean Air Act Amendments of 1990 and the subsequent EPA Transportation Conformity Rule Amendments: Flexibility and Streamlining; Final Rule. Section 93.122 of the Final Rule specifically details the procedures for determining regional transportation-related emissions and refers to the estimation of VMT as part of these procedures. Federal law requires the use of VMT in the calculation of vehicle emissions and the similar methodologies apply to the calculation of related transportation energies.

Number Of "Passenger Vehicles" And "Transit Buses" For "Indirect Energy Impact"

38. *The second full paragraph on page 5-40 states: "Indirect energy also involves the manufacturing and maintenance of vehicles. This includes both passenger vehicles and transit buses."*

A discussion should be provided on how the numbers of "passenger vehicles" and "transit buses" under each Alternative were determined. The discussion also should identify the numbers for each Alternative.

If the number of "passenger vehicles" represents or includes the autos that theoretically will not be purchased by new transit riders making home-based work trips, then justification should be provided. A person changing to the transit mode for a home-based work trip likely will continue to own an auto for non-work trips.

Response: This information was derived from the travel demand forecasting procedures maintained by the OMPO, the regional planning organization for Oahu.

Numbers of passenger vehicles and transit buses are not used instead, total vehicle miles traveled (VMT) for both modes are used. This VMT format is used because it is what is needed for the energy conversions.

"Indirect Energy Consumption" For "Maintenance"

39. *The first full paragraph on page 5-43 states: "Construction of the Refined BRT Alternative would result in the greatest indirect consumption of energy in comparison to the other alternatives." For construction, the indirect energy consumption appears to be a one-time value.*

    With respect to the indirect energy consumption for maintenance, the first full paragraph on page 5-43 also states that "overall energy consumption for maintanance [under the Refined BRT Alternative] would be approximately one thousand barrels of oil more due to the increased use [sic] number of transit vehicles in service." Table 5.9-3 on page 5-42 indicates that the indirect energy consumption for "maintenance" is calculated based only on the maintenance of "passenger vehicles" and "transit buses."

    a. *The table and a discussion should indicate whether the indirect energy consumption for "maintenance" is an annual or one-time value.*

       Response: Comment noted. First paragraph of the FEIS, Section 5.9.2, Energy Impacts, 2) Indirect Energy (Construction) has been revised to clarify that indirect energy consumption (including construction and maintenance during construction activities) estimates represent one-time, non-recoverable energy costs.

    b. *The table also should include indirect energy consumption values for the maintenance of "roadways," "parking," "structures," and "maintenance facility." Indirect energy consumption values are provided in the table only for construction of those facilities.*

       Response: The FEIS energy analysis (Section 5.9) was done in conformance with accepted procedures. (See response to comment #37, above.) The only items included in this calculation are construction-related costs. The maintenance of these facilities are not considered to be construction-related activities. Maintenance is only relevant for vehicles because these vehicles need to be maintained during the construction period.

Elimination Of Ala Moana Boulevard Street Parking On Ala Moana Park

40. *The fourth full paragraph on page 5-47 discusses the federal "Section 4(f)" limitations on the use of parklands for transportation projects. The paragraph states:*

    The word "use" in this case means:

    * * *

    - *the project's proximity to the site substantially impairs those functions that qualify the site as a Section 4(f) resource even though no land is permanently or temporarily acquired. This is called "constructive use."*

    A discussion should be provided on whether the elimination of the on-street parking for Ala Moana Park caused by the In-Town BRT alignment represents a "constructive use" under Section 4(f).

    Response: For the loss of the evening/weekend/holiday parking on Ala Moana Boulevard to be considered a Section 4(f) constructive use, Ala Moana Park's value in terms of public enjoyment would have to be substantially reduced by the project. Although the loss of parking on Ala Moana Boulevard is an impact, it does not rise to the level of constructive use. Park users will still be able to access the park by private vehicle or by transit. The FEIS, Section 5.11.2 on Section 4(f) has been revised to include this issue.

41. *Table 6.103C on page 6-8 displays the "conceptual capital funding plan" for the Refined BRT Alternative for the fiscal years 2002 – 2010. In contrast, table 6.1C-3 on page 6-8 of the DEIS displays the conceptual funding plan for the original BRT Alternative for the fiscal years 2001 – 2010.*

    a. *For a better understanding of the total cost of the integrated transit system, the "conceptual capital funding plan" for the Refined BRT Alternative should encompass the fiscal period 2001-10. Some of the buses or other improvements paid with expenditures during the fiscal year 2001 will be used under the Refined BRT Alternative.*

       Response: The first year of the funding plan in the SDEIS is reflected as FY 2002 to keep the cash flow of the financial analysis as current as possible. In the FEIS, the first year of the funding plan is updated to FY 2003. Capital expenditures from previous years for the entire system are accounted for in the annual debt payment for bonds issued prior to the first year of the funding plan.

    b. *The "conceptual" capital funding plan" for the Refined BRT Alternative shows a bus acquisition cost of $16,649,000 less than the bus acquisition cost for the original BRT Alternative in the DEIS. The reason for the difference should be explained.*

       Response: The bus replacement plans have been refined for all of the alternatives resulting in a different mix of buses being required in the fleet. This is reflected in the updated capital costs.

42. *Table 6.1 on page 6-3 sets forth the capital costs of the Alternatives.*

    At least in a footnote, the table should include the amount of interest payable on general obligation bonds issued to fund each Alternative.

    Circulation based on the data in table E-3 on page E-11 indicates that interest payable for the Refined BRT Alternative during the 2002 to 2025 period will amount to $195,442,000 for general obligation bond proceeds of $331,000,000.[12]

    [12] The calculation is as follows: $526,442,000 in "debt service on bonds issued after 2002" - $331,000,000 in "G.O. bond proceeds." The calculation does not include debt service payments after 2025 for bonds issued before 2025.

    Response: The average annual debt service payment for post 2002 debt (by alternative) is shown on Table 6.1-11.

43. *The SDEIS does not mention whether land acquisition costs for transit centers and park-and-ride facilities are included in the capital cost of the Refined BRT Alternative. In contrast, the first paragraph on page 2-34 of the DEIS indicates that land acquisition costs for some facilities were not included in the capital costs of the Alternatives.*

    e. *A discussion should be provided on whether the capital cost of the Refined BRT Alternative includes all costs for land acquisition, when necessary, for transit centers and park-and-ride facilities.*

Response: Land costs are included for right-of-way acquisition in the FEIS. Land costs for transit centers and park-and-rides when they are proposed to be developed as separate projects from the PCTP are not included in the capital cost estimates.

No land acquisition costs are included for the Aloha Stadium and Iwilei Transit Centers since they will be constructed on public lands. Land for the Kapolei Transit Center and North-South Road Park-and-Ride are assumed to be donated to the City as a condition of development rights by private land developers. Land acquisition costs for the Middle Street Transit Center will be borne by an independent project for a park-and-ride at this site.

b. *The discussion should identify the transit centers and park-and-ride facilities, the acquisition of land for which may be required, and the estimated cost of acquisition.*

Response: See response to comment #43A.

44. *Table 6.1-1 on page 6-3 displays the capital costs of the Alternatives.*

a. *The capital cost of the Refined BRT Alternative should include the cost to the City, if any, of the apparent Waikiki park-and-ride facility.*

Response: The possible park-and-ride in Waikiki at Fort DeRussy is not part of the PCTP. The U.S. Army would be responsible for a Fort DeRussy park-and-ride if it were to be built.

b. *The capital cost of the Refined BRT Alternative also should include the costs of the Pearl City and Aiea park-and-ride facilities recommended by the Pearl City/Aiea Working Group. According to generic estimates, one four-bus bay, 100-surface parking stall facility has a capital cost of $1,660,000 in 1998 dollars, excluding land acquisition cost. See page 5 of the "Regional BRT Transit Centers Capital Cost Estimates" and page 5 of the "Regional BRT Transit Parking Capital Cost Estimates" in the Estimated Capital Costs Technical Report.*

Response: Many of the transit centers that will be part of the hub-and-spoke system will be funded separately from the PCTP. The transit centers in Pearl City and Aiea are among those that are proposed to be funded as separate projects.

c. *If the Kamehameha Highway bus contra-flow operation recommended by the Pearl City/Aiea Working Group is expected to incur capital cost, that cost should be included in the capital cost of the Refined BRT Alternative.*

Response: The traffic and environmental impacts of a contra-flow operation on Kamehameha Highway need to be analyzed in greater detail than was possible during the Working Group phase of the PCTP. The City is proceeding with this as an independent project from the PCTP. This is project number 2003043 in the FY 2003 CIP.

45. *An ambitious bus purchase schedule for the 2000 to 2025 period is set forth for the original BRT Alternative. The following table displays the number of buses that must be purchased under the schedule.*

BUS PURCHASE SCHEDULE BETWEEN 2000 AND 2025 FOR ORIGINAL BRT ALTERNATIVE

Minibuses	Standard Buses	Articulated Buses	TOTAL
170	893	174	1,237

Source: Page 3 of the "Bus Replacement Capital Cost Estimates" of the Estimated Capital Costs Technical Report

Much of the benefits of the Refined BRT Alternative will result from the bus service.[14] Most of the transit trips under the Alternative will be taken only on buses. Consequently, adherence to the bus supply will be necessary to achieve most of the forecasted ridership and benefits of the Refined BRT Alternative.

Bus purchases and service, however, will be susceptible to cutbacks if the City experiences future financial problems.

A discussion should be provided on the plan to adhere to the bus purchase schedule and bus service supply identified for the Refined BRT Alternative. The discussion should indicate what type of legislative or intergovernmental commitment is necessary now to guarantee adherence to the schedule in the future. The discussion also should indicate what penalty, if any, may be imposed by the Federal Transit Administration on the City due to noncompliance with the bus purchase schedule.

[14] Logic indicates that the bus purchase schedule for the Refined BRT Alternative will be the same or similar to that for the original BRT Alternative since both will have a fleet of 730 buses in 2025. Consequently, any conclusion derived from the schedule for the original BRT Alternative would seem applicable to the Refined BRT Alternative.

Response: The actual, year-by-year schedule of new bus purchases is a function of service expansion and existing fleet replacement needs. Timing of existing fleet replacement is typically determined by expected vehicle life (12 years is standard for a full-size bus, although OTS maintains their fleet carefully and operates vehicles longer), available funds, and delivery times/procurement strategies. Service expansion usually occurs in conjunction with a new operating plan and/or capital improvements like the BRT lanes. Since traditionally, legislative bodies cannot effectively bind their successors, it may not be possible to secure the type of commitment the comment suggests. Even a multi-year federal transportation initiative such as embodied in the TEA-21 legislation is still subject to annual appropriations. In that sense, there are no guarantees from one year to the next.

The "penalty" imposed by the FTA is that grants awarded to the City, for which the City cannot provide the local match or in some other way cannot meet the grant terms, are simply revoked – the project sponsor loses the federal share of the project's funding if it cannot provide the non-federal share, so the project does not go forward.

Philosophically, the same question asked about providing annual funding for replacement and expansion of capital could be asked about construction of new school buildings or other public infrastructure – where will the original funding come from, and where will the money to replace aging components come from? The answer reflects public priorities at the time when the money is needed.

46. *Table 6.1-3C on page 6-8 of the SDEIS indicates that, under the capital funding plan for the Refined BRT Alternative, federal new start funds amounting to $229,751,000 will be required. In contrast, table 6.1-3C on page 6-8 of the DEIS indicates that the original BRT Alternative would have required $182,100,000 in federal New Start funds.*

A discussion should be provided on the competitive process for obtaining federal new start funds from the Federal Transit Administration. The discussion also should summarize the contingency funding source if the City does not receive the full amount.

Response: The following factors were considered in increasing the target level of FTA New Starts funding between the DEIS and the SDEIS and FEIS: a) The Refined LPA includes an additional In-Town BRT branch (from Iwilei to Waikiki) that had not been in the DEIS, thus increasing the capital cost of the project; b) In the DEIS, no FTA New Starts funding was being requested for the Regional BRT component of the program. In the SDEIS and FEIS, the level of FTA New Starts funding being requested was increased $20 million in partial replacement for funding that had been proposed to come from State sources in the DEIS.

It should be noted that even with the increased level of FTA New Starts funding being requested in the FEIS, the total level of FTA New Start participation is still low in comparison to other projects nationwide -- in terms of dollar amount and percentage participation. The level of federal participation proposed is considered conservative, with a high probability of being funded.

The purpose of the financial plan in the FEIS is to show the FTA the sources and uses of funds and to document the level of New Starts funding the City will be requesting. It is not required to show alternative funding plans in the FEIS.

47. *The third paragraph on page 6-1 states: "The financial analysis concludes that the Refined BRT Alternative along with the system-wide bus and The Handi-Van replacement and expansion program can be funded without adding new taxes or raising taxes using the following revenues sources: ...."*

    a. *A discussion should address whether City funds will have to be diverted from existing non-transit programs and projects to the Refined BRT Alternative as a consequence of the capital and operating and maintenance funding plans in the SDEIS. If no diversion is required, justification should be provided, given the increased debt service and operating and maintenance cost for the Alternative.*

    b. *The discussion also should address whether taxes will have to be added or raised to replace the City funds diverted from non-transit programs and projects to the Refined BRT Alternative. If taxes will not have to be added or raised, justification should be provided.*

Response: An assumption used to model the financial analysis was the necessity to accommodate non-transit programs and projects. Therefore, the project and the local funding requirement have been phased to moderate the amount required in any given year. Choices will

need to be made on a year by year basis on future (not existing) programs and projects to accommodate capital funding limits – the same as they may need to be made for any other major capital project. The cash flow analysis provides the quantitative information for the policy decision. In the FEIS, the amount of GO Bond proceeds in any given year was moderated by spreading the use of the revenue over several years, to allow for additional capacity for other projects.

48. *The conceptual capital funding plan for the Refined BRT Alternative proposes the use of the major portion of the annual federal Section 5307 grant to the City for capital costs. The last paragraph on page 6-6 states: "Over the 2005-2021 period, a minimum of 30 percent of the City's Section 5307 funds are assumed to be used for preventive maintenance,, [sic] with a maximum of 70 percent used for other capital and planning needs." The second full paragraph on page 6-12 states: "The assumption made in the financial analyses is that a minimum of $12.00 million in FTA Section 5307 funds would be reserved for preventive maintenance in FY 2002, and a minimum of $6.00 million annually in FYs 2003-05."*

The following table displays the amounts expended or encumbered for "preventive maintenance" from the federal grants fund in the recent past. Expenditures from that fund are made for City operating programs.

FEDERAL GRANTS FUND
EXPENDITURES AND ENCUMBRANCES FOR
"PREVENTIVE MAINTENANCE"
(In Thousands of Dollars)

	FY 98-99	FY 99-00	FY 00-01
Preventive Maintenance Expenditures / Encumbrances As Of June 30 Of Fiscal Year	$ 5,798.6	$18,276.6	$20,000.0

Sources: Pages on the federal grants fund for "transportation services" in the "Budget and Fiscal Services Director's Financial Report" for the pertinent fiscal years. The "Reports" do not identify the "preventive maintenance" funds as coming from the Section 5307 grants. A conclusion that the funds are from the Section 5307 grants, however, seems reasonable.

    e. *The amounts of federal funds expended on or encumbered for preventive maintenance, an operating program, were more than $6 million in the fiscal year 1999 – 2000 and fiscal year 2000-01. The operating and maintenance cash flow analysis in table E-3 indicates that City general funds apparently will have to replace the federal preventive maintenance funds diverted to the capital cost of the Refined BRT Alternative. A discussion of whether this assessment is correct should be provided.*

    Response: Prior to 1998, there were no significant amounts from the federal formula funds used for preventive maintenance. The cash flow analysis provides year-by-year information. Over the 2002-2025 period, 100 percent of the FTA Section 5307 funds available for capital costs will be used for on-going, system-wide bus acquisition and replacement.

If there are insufficient general funds to pay for O&M costs in any given year, policymakers would have the choice of: (1) deferring capital expenditures and using a larger share of FTA Section 5307 funds for preventive maintenance; (2) using bond funds for transit capital and a larger share of Section 5307 funds for preventive maintenance; (3) temporarily reducing service; (4) delaying preventive maintenance; or (5) financing non-transit programs from which money would be diverted to pay for the preventive maintenance through General Obligation bonds.

b. *If the assessment under paragraph (A) above is correct, the last sentence on page 6-6 should be eliminated or appropriately revised. It states: "The Section 5307 assistance for preventive maintenance reduces the annual General Fund subsidy for transit operating and maintenance (O&M) costs." When compared to the expenditures in fiscal year 1999-00 and fiscal year 2000-01, the planned diversion of the federal funds in subsequent years to capital cost may require an Increase of the City general fund subsidy for transit operating and maintenance.*

Response: The reason Section 5307 funds have been used for preventive maintenance is to reduce the annual General Fund subsidy for transit operating and maintenance costs. See response to Comment #48A.

c. *A discussion should be provided on whether the diversion of federal funds from preventive maintenance to capital cost will result in less bus maintenance in the future.*

Response: It is possible that there could be a need for lower maintenance costs – which is not the same as less bus maintenance. As noted in response to comment #48A, this is not the only option for policymakers. Therefore, it would be inappropriate to speculate on that possibility.

49. *The fourth and fifth paragraphs on page 6-9 discuss the availability of Federal Highway Administration funds for the capital cost of the Refined BRT Alternative. The following statement is in the fourth paragraph: "Currently, a total of $116 to $120 million in FHWA funds are received each year by the State." The fifth paragraph states: "For the Refined BRT Alternative, a total of $160 million in FHWA funding has been assumed in the financial analysis, and the amount capped at $20 million annually over the FYs 2002-2010."*

The amounts of FHWA funds annually expended by the City for capital improvements in the recent past should be identified. A discussion also should be provided on the probability of the City receiving $20 million annually in FHWA funds.

Response: The amount and timing of FHWA funds are decisions made by OMPO, in cooperative planning by the State, federal and local agencies. The amount of FHWA funds received by the City has fluctuated, depending on the priority, total cost, and phasing of the project(s). Over 50 percent of FHWA funds are spent on Oahu. OMPO and the State DOT have been kept closely apprised of the project's funding needs.

50. *In a letter, dated September 18, 2001, to the City Director of Transportation Services, the State Director of Transportation comments on State participation in funding the BRT project. The letter reads in part:*

We have from the onset expressed our reservations on being able to fund this project, as the statewide needs far exceed our limited resources. More recently, in meetings on the project, we were advised that alternative funding strategies were in place, where Federal Highways (FHWA) and State funds would not be required.

As such, it is not our intent or expectation to provide funding for the BRT project; and have developed our capital improvement programs accordingly. (Underscoring added.)

A response to the State Director of Transportation's position regarding the FHWA funds should be provided. If FHWA funds are unavailable, the contingency funding source should be identified.

Response: The SDEIS and FEIS reflect the removal of State highway funds as a capital funding source, in response to the request of State officials and as agreed to at the OMPO Policy Committee. On May 7, 2002, the State Department of Transportation provided a clarification to the September 18, 2001 comment on FHWA funding. In that letter, SDOT indicated that OMPO will approve the amount of Oahu FHWA funds available for BRT and other projects. Since 2000, OMPO has been aware of the $160 million in FHWA funding proposed for the project.

51. *The third full paragraph on page 6-10 discusses the use of City highway funds for debt service. The paragraph includes the statement: "Over this same period [fiscal years 2002 – 2010], the average annual contribution for debt service would be $34.74 million, of which approximately 45 percent would be for debt incurred by the City prior to 2002." The following compares the actual, estimated, and proposed transfers in recent years of City highway funds to pay debt service. As is displayed, the amounts are much less than $34.74 million.*

TRANSFERS FROM CITY HIGHWAY FUND TO PAY DEBT SERVICE

FY 2002-10 Average Annual Contribution Under SDEIS	FY 2000 –01 Actual Transfer	FY 2001 – 02 Estimated Transfer	FY 2002 – 03 Proposed Transfer
$34,740,000	$14,949,000	$13,943,829	$16,872,798

Sources: For the FY 2000-01 actual transfer, page 112 of the Comprehensive Annual Financial Report For The Fiscal Year Ended June 30, 2001. For the FY 2001 – 02 estimated transfer and FY 2002 – 03 proposed transfer, page C-6 of the The Executive Program And Budget, Fiscal Year 2003, Volume I: Operating Program and Budget.

a. *A discussion should be provided on what effect the diversion of the additional City highway funds for the Refined BRT Alternative's debt service will have on other programs and projects now funded by City highway funds.*

Of particular interest is whether the annual $18 to $20 million in additional City highway funds for the debt service payment will be diverted from the City highway fund transfers to the bus transportation fund. For fiscal year 2002-03, the proposed "bus subsidy" from the City highway fund is $33,990,661, according to page C-16 of The Executive Program And Budget, Fiscal Year 2003, Volume I: Operating Program And Budget.

Response: The FEIS assumes that the City Highway Fund will not be used as a source for the 20 percent local match required for federal funds. The change in assumption will also change the balance of debt service payment from the City Highway Fund and other

sources. The FEIS specifies the level of City funding required for debt service for public transportation purposes, and the percentage required of total debt service to be paid from the City Highway Fund.

b. *A discussion also should be provided on the City Administration's intention regarding the source of debt service for future City highway projects.*

Response: The financial analysis assumes that any bonding and subsequent debt service for the BRT, transit and highway projects will need to fall under the debt policies established by the City Council. As such, the project is not intended to add to the overall debt of the City; rather, to be a part of the total capital commitment projected by the City. An analysis was performed on the cash flow to assure compliance with the City's debt performance ratios.

52. *The third full paragraph on page 6-10 states: "Over the longer FYs 2002-2025 period, the average annual contribution from the City Highwey Fund to provide local match to federal grants is projected to be $5.53 million."*

According to the response to question (45)(A) on page 35 of Communication D-840 (2000), the City has not made any cash expenditure from the City highway fund for a mass transit capital project in the recent past.

A discussion should be provided on whether a cash expenditure from the City highway funds for a capital improvement project will be affordable, given the other City highway fund obligations, both proposed in the SDEIS and existing under current budgetary practice.

Response: The FEIS assumes that no City Highway Funds will be used as the capital match for federal grants.

53. *A discrepency exists in the description of the funding source of the debt service for the Refined BRT Alternative. Table E-3 indicates that the debt service will be paid from the City highway fund. Additionally, in a discussion of the City highway fund, the second full paragraph on page 6-10 states: "It is assumed that the Fund pays for debt service on transit-related bonds issued after 2002." In discussing the City general fund, however, the fourth full paragraph on the same page states: "The debt service on General Obligation Bonds would be paid from the City General Fund."*

Clarification should be provided on whether the debt service for the Refined BRT Alternative will be payable from the City highway fund or City general fund. A transfer of City highway funds to the City general fund for subsequent payment of the debt service should be regarded as a payment from the City highway fund.

Response: The FEIS provides an analysis of the amount of debt service to be paid for from the City highway fund, and the amount that would need to be paid for from the general fund.

54. *The third paragraph on page 6-11 states: "The issuance of General Obligation Bonds is constrained in the financial analyses to a total equivalent to the 1996 level of $1.13 billion outstanding in any given year. This amount is adjusted annually to reflect a conservative 1.5 percent rate of inflation and to allow for repayment of principal and interest on outstanding bonds."*

a. *The City Administration uses outstanding general obligation bonds as the factor for determining the capacity for additional general obligation bonds. The City Administration does not factor in its analysis outstanding reimbursable and revenue bonds payable from dedicated revenues instead of general revenues. Debt service on certain of those outstanding bonds, such as sewer bonds, is also payable by residents and businesses through special charges additional to real property taxes. Thus, the debt burden from reimbursable and revenue bonds should be considered in addition to the debt burden from general obligation bonds. Housing or other types of bonds, the debt service of which is payable exclusively by limited beneficiaries, should be excluded.*

Response: This assumption was used as a constraint on the total debt of the City so that this project would be a part of the total projected capital program, and not an addition to the capital program. Subsequently, the City has adopted into practice policies for determining the capacity for additional general obligation bonds. The FEIS included an analysis to ensure compliance with the City's Debt and Financial Policies as passed by the City Council in April 2002.

b. *The following is a portion of a table from The Comprehensive Annual Financial Report For The Fiscal Year Ended June 30, 2001, with verbatim footnotes. It indicates that the $1,132,844,000 in direct bonded debt in fiscal year 1995-96 included bonds for sewer and refuse collection purposes. Only from the fiscal year 1999-2000 does the direct bonded debt exclude bonds for sewer and refuse collection purposes. Consequently, the $987,147,000 in direct bonded debt in that year should be the appropriate base for the City Administration, under its methodology, to measure the direct bonded debt ceiling in subsequent years for transit and other non-self-supporting projects.*

DIRECT BONDED DEBT
FROM FISCAL YEAR 1991-92 TO FISCAL YEAR 2000-01
(The footnote designations and narratives are repeated verbatim from the source to avoid misinterpretation of the information)

Fiscal Year	Direct Bonded Debt (c) (In Thousand $)
1991-92	635,872
1992-93	912,630
1993-94	1,122,894
1994-95	1,076,373
1995-96	1,132,844 (d)
1996-97	856,596 (d)
1997-98	870,856 (d)
1998-99	978,576 (d)
1999-00	987,147 (d)
2000-01	1,103,082 (d)

(c) Excludes non-tax supported debt.
(d) Effective fiscal year 1997, excludes bonds issued for sewer purposes by Ordinance No. 97-46. Effective fiscal year 2000, excludes bonds issued for refuse collection by Ordinance No. 99-22.

Source: Table 8 on page 216 of The Comprehensive Annual Financial Report For The Fiscal Year Ended June 30, 2001.

A discussion should be provided of the following:

1) Why the City Administration uses the $1,132,844,000 figure for fiscal year 1995-96, the highest in recent years, for its calculation of the direct bonded debt ceiling instead of the more appropriate $987,147,000 in fiscal year 1999-00?

Response: This comment is regarding the City's financial report and its contents, not the Refined LPA EIS. As the agency responsible for the City's financial report, the Department of Budget and Fiscal Services should be contacted regarding this comment.

2) Whether, according to the City Administration's adjustment methodology, the City exceeded its direct bonded debt ceiling in fiscal year 2000-01? If the $987,147,000 is increased by 1.5 percent, the result is $1,001,954,000. If the $987,147,000 is increased by 4.0 percent, the sum of 1.5 percent and the 2.5 percent assumed inflation rate, the result is $1,026,633.

Response: This comment is regarding the City's financial report and its contents, not the Refined LPA EIS. As the agency responsible for the City's financial report, the Department of Budget and Fiscal Services should be contacted regarding this comment.

3) Whether, according to the City Administration's 1.5 percent adjustment methodology, the City may issue bonds in fiscal year 2002-03 without violating the direct bonded debt ceiling for that fiscal year? According to Communication D-943 (2001), outstanding and unpaid general obligation bonds amounted to $1,306,499,928 as of December 5, 2001.

Response: This comment is regarding the City's financial report and its contents, not the Refined LPA EIS. As the agency responsible for the City's financial report, the Department of Budget and Fiscal Services should be contacted regarding this comment.

55. *From the fiscal year 1995-96 to the fiscal year 1998-99, the City annually received about $100,000,000 in general obligation bond proceeds for the general obligation and highway improvement bond funds. Since then, the annual amounts of general obligation bonds received for those funds have increased. More notably, the City Administration proposes a major increase for the fiscal year 2002-03. The following table displays the data.*

CITY GENERAL OBLIGATION BOND PROCEEDS OF GENERAL IMPROVEMENT BOND FUND AND HIGHWAY IMPROVEMENT BOND FUND
(In Thousands of Dollars)

G.O. Bond Proceeds Of:	FY 95-96 Actual	FY 96-97 Actual	FY 97-98 Actual	FY 98-99 Actual
Gen. Imp. Bond Fund	$70,081	$91,437	$87,444	$77,000
Hwy Imp. Bond Fund	$29,918	$8,562	$12,556	$23,000
TOTAL	$99,999	$99,999	$100,000	$100,000

G.O. Bond Proceeds Of:	FY99-00 Actual	FY 00-01 Actual	FY 01-02 Estimated	FY 02-03 Proposed By City Admin.
Gen. Imp. Bond Fund	$86,500	$98,340	$105,000	$157,084
Hwy. Imp. Bond Fund	$25,000	$51,720	$45,000	$116,548
TOTAL	$111,500	$150,060	$150,000	$273,632

Sources: For fiscal year 1995-96 to fiscal year 2000-01, the pages showing the combined income statements for the capital project funds in the Comprehensive Financial Report for those fiscal years. For fiscal years 2001-02 and 2002-03, pages C-36 and C-37 of The Executive Program And Budget, Fiscal Year 2003, Volume I: Operating Program and Budget.

A discussion should be provided on the City Administration's intent with respect to the annual amounts of general obligation bonds planned to be issued for all City projects in the near future. The discussion is necessary to better integrate the capital funding plan for the Refined BRT Alternative with the projected funding of other capital improvement projects.

Response: In setting the GO Bond proceeds amount per year, the financial analysis kept the level within the ratios established by the City's Debt and Financial Policies as established in April 2002.

56. *Table 6.1-12 on page 6-20 displays the annual general obligation bond requirements for the Refined BRT Alternative for the fiscal year 2001-02 through fiscal year 2004-05. No comparison is provided to past general obligation bond expenditures for transit projects.*

Highway improvement bond fund expenditures for "utilities or other enterprises" may serve as a proxy for general obligation bond fund expenditures for transit projects. The "utilities or other enterprises" function appears to consist almost exclusively of such projects. Furthermore, most of the proceeds of the highway improvement bond fund are from general obligation bonds.[15]

[15] In the recent past, there were no expenditures from the general improvements bond fund for "utilities or other enterprises."

The following table compares (1) past highway improvement bond fund expenditures for "utilities or other enterprises" and expenditures/encumbrances/appropriations for one additional project against (2) the proposed general obligation bond funding requirements for the Refined BRT Alternative. The additional project is the Paint City bus facility. For an unknown reason, appropriations for that project were made in fiscal year 1997-98 and fiscal year 1999-00 under the "general government" function, not "utilities or other enterprises."

Basically, the table shows that the proposed annual general obligation bond expenditures for the Refined BRT Alternative will be much greater than the past annual highway improvement bond expenditures for transit projects.

COMPARISON OF HIGHWAY IMPROVEMENT BOND FUND EXPENDITURES FOR "UTILITIES OR OTHER ENTERPRISES" AND GENERAL IMPROVEMENT BOND FUND EXPENDITURES / ENCUMBRANCES / APPROPRIATIONS FOR PEARL CITY BUS FACILITY FROM FISCAL YEAR 1995 – 96 THROUGH FISCAL YEAR 2000-01 AGAINST ANNUAL GENERAL OBLIGATION BOND REQUIREMENTS FROM FISCAL YEAR 2001-02 THROUGH FISCAL YEAR 2004-05 FOR REFINED BRT ALTERNATIVE

(In Thousands of Dollars)

	FY 95-96 Actual	FY 96-97 Actual	FY 97-98 Actual	FY 98-99 Actual
Highway Imp. Bond Funds Expended for Utilities/ Other Enterprises	$4,410	$2,162	$3,992	$2,384
General Imp. Bond Funds Exp. / Enc. For Pearl City Bus Facility			$4,999	
Total	$4,410	$2,162	$8,991	$2,384
	FY 99-00 Actual	FY 00-01 Actual		
Highway Imp. Bond Funds Expended for Utilities / Other Enterprises	$3,587	$4,685		
General Imp. Bond Funds Approp. For Pearl City Bus Facility	$1,100			
Total	$4,687	$4,685		
	FY 01-02 Proposed	FY 02-03 Proposed	FY 03-04 Proposed	FY 04-05 Proposed
G.O. Bond Requirement For Refined BRT	$28,000	$60,000	$103,000	$68,000

Sources: For fiscal year 1995-96 to fiscal year 2000-01, the pages with the income statements for the highway improvement bond fund in the Comprehensive Financial Report for the pertinent fiscal years. For the Pearl City bus facility, page 76 of The Executive Program And Budget, Fiscal Year 2000, Volume II: Capital Program And Budget and Ordinance 99-27. For fiscal year 2001-02 to fiscal year 2004-05, table 6.1-12 on page 6-20 of the SDEIS.

A discussion should be provided on the need for much greater general obligation bond expenditures for the Refined BRT Alternative than past general obligation bond expenditures for transit projects.[16] The discussion especially should address whether general obligation bonds will have to be diverted from highway and other non-transit projects.

Sources: For fiscal year 1995-96 to fiscal year 2000-01, the pages with the income statements for the highway improvement bond fund in the Comprehensive Financial Report for the pertinent fiscal years. For the Pearl City bus facility, page 76 of The Executive Program And Budget, Fiscal Year 2000, Volume II: Capital Program And Budget and Ordinance 99-27. For fiscal year 2001-02 to fiscal year 2004-05, table 6.1-12 on page 6-20 of the SDEIS.

A discussion should be provided on the need for much greater general obligation bond expenditures for the Refined BRT Alternative than past general obligation bond expenditures for transit projects.[16] The discussion especially should address whether general obligation bonds will have to be diverted from highway and other non-transit projects.

[16] A portion of the general obligation bond requirement is intended to fund the zipper lane and direct access ramps for the Regional BRT highway system. An argument may be made that the portion should be considered an expenditure for "highways and streets." That argument, however, would be unpersuasive. The major benefits of those facilities will be for transit, not regular traffic.

Response: The project uses General Obligation Bonds as the source of local financing, as directed by the City Council in Resolution No. 99-338, adopted in December 1999. The amount of those bonds that would be needed on an annual basis are stated in the financial analysis.

57. *The last paragraph on page 6-10 states:*

> *With regard to the first constraint, the assumption is that property values will remain flat and that the City would maintain the current property tax rate. This creates a ceiling on the amount of General Obligation Bonds the City would be able to issue because it limits the City's debt service payment capacity to the current level of property tax values.*

(A) An explanation should be provided to reconcile the assumption of flat property values and tax rates with the assumption of 1.5 percent annual increase of future outstanding general obligation bond debt. See the third paragraph of page 6-11 for the assumption on the 1.5 percent annual increase. In particular, the explanation should discuss the City's ability to pay increasing general obligation bond debt service when general revenues from property taxes are flat.

(B) If an adequate explanation cannot be provided, the reference to the assumption of flat property values and tax rates should be deleted.

Response: An analysis was conducted to assure compliance with the City's Debt and Financial Policies, which included debt service payments on bonds issued before 2003, planned future notes and bonds, and additional bonds required as a result of this project.

58. *The first full paragraph on page 6-12 states: "To meet the City's new farebox recovery policy the fares would need to increase slightly from those used in the financial analyses."*

The necessary fare increase should be identified by year and amount. The City Administration also should consider proposing a bill to amend the transit fare schedule in Chapter 13, Revised Ordinances of Honolulu 1990, to implement the necessary fare increase. The bill should have the appropriate future effective date.

Response: Fare increases will not be needed to meet the current City Council policy regarding farebox recovery ratio.

59. *According to table 6.1-5 on page 6-13, the City general fund requirement for transit operating and maintenance will be $98,817,000 in fiscal year 2004-05 and $132,813,000 in fiscal year 2009-10. Those amounts are much more than the past, current, and proposed City general fund subsidies for bus operating and maintenance, as shown in the following table.*

It is noted that, for the fiscal years 2004-05 and 2009-10, part of the projected general fund subsidies possibly may be offset by City highway funds. See the next comment.

COMPARISON OF GENERAL FUND SUBSIDY FOR TRANSIT OPERATING AND MAINTENANCE (In Thousands Of Dollars)

	FY 00-01 Actual	FY 01-02 Estimated	FY 02-03 Proposed
General Fund Subsidy For Transit O&M	$37,518	$46,422	$42,176
	FY 04-05 Projected	FY 09-10 Projected	
General Fund Subsidy for Transit O&M	$98,817*	$132,813*	

* Portion of the amount possibly may be replaced by City highway funds.

Sources: For fiscal year 2000-01, page 79 of the Comprehensive Annual Financial Report For The Fiscal Year Ended June 30, 2001. For fiscal year 2001-02 and fiscal year 2002-03, page C-16 of The Executive Operating Budget And Program, Fiscal Year 2003, Volume I: Operating Program and Budget. For fiscal year 2004-05 and fiscal year 2009-10, table 6.1-5 on page 6-13 of the SDEIS.

An explanation should be provided of where the additional general fund subsidy in future years will come from. The explanation should be consistent with the assumption in the last paragraph on page 6-10 "that property values will remain flat and that the City would maintain the current property tax rate." The explanation also should indicate whether transfers of City highway funds to the general fund are contemplated to ease the burden on the general fund in future years.

Response: The document is a disclosure of the amount that will be required as a general fund subsidy. It is not an obligation of the document to identify where the general funds will be allocated from.

60. *Chapter 6 and the cash flow analysis of table E-3 do not discuss or identify a possible City highway fund offset of the City general fund subsidy for the Refined BRT Alternative.*

The following table estimates the amounts of City highway funds that may be available to offset part of the City general funds required for the operating and maintenance costs of the Refined BRT Alternative in fiscal 2004-05 and fiscal year 2009-10.

ESTIMATE OF NET CITY HIGHWAY FUNDS AVAILABLE TO OFFSET PART OF CITY GENERAL FUND SUBSIDY FOR REFINED BRT ALTERNATIVE'S OPERATING AND MAINTENANCE COST (In Thousands of Dollars)

	FY 04-05 Estimated	FY 09-10 Estimated
Escalated City Highway Funds Before Reduction For Debt Service And Local Capital Match (Based on 2.5% Annual Escalation of $33,991,000 Proposed City Highway Fund Transfer to Bus Transportation Fund in FY 02-03.)	$35,712	$40,405
Less City Highway Funds For:	Less:	Less:
Debt Service for Post-2002 Bonds	$23,272	$25,698
Local Capital Match	$ 3,265	$ 8,116
Net City Highway Funds Available to Offset City General Fund Subsidy For Operating & Maintenance Cost	$9,175	$6,591

Sources: For the proposed $33,991,000 City highway fund transfer to the bus transportation fund, page C-16 of the Executive Program And Budget, Fiscal Year 2003, Volume I: Operating Program and Budget. For debt service payments and local capital match, table E-3 on pages E-11 and E-12 of SDEIS.

(A) The City highway funds proposed to be transferred to the bus transportation fund in fiscal year 2002-03 is escalated by 2.5 percent annually, the same inflation rate assumed in the SDEIS.

(B) The escalated City highway fund amounts for fiscal year 2004-05 and fiscal year 2009-10 are reduced by the City highway funds necessary in those fiscal years to pay the debt service and provide the local capital match for the Refined BRT Alternative. The debt service and local capital match amounts are identified in table E-3 on pages E-11 and E-12.

The amounts remaining after the reductions are the net City highway funds estimated as available to offset the City general fund subsidies for the Refined BRT Alternative's operating and maintenance cost.

Response: Whether the City general fund subsidy comes from the general fund, the City highway fund, or from any other existing fund, is a financing implementation detail that should be determined by the City's Finance Department in accordance with the authorized budget approval process.

61. *As is displayed, the net City highway funds available for the Refined BRT Alternative's operating and maintenance costs in fiscal year 2004-05 and fiscal year 2009-10 are much less than the City highway fund subsidy of $33,991,000 for bus operating and maintenance proposed in fiscal year 2002-03.*

The next table deducts from the projected City general fund subsidies for the Refined BRT Alternative's operating and maintenance costs the net City highway funds available for transit operating and maintenance. The table indicates that the City general fund subsidy for the Refined BRT Alternative's operating and maintenance will remain relatively large, even after the possible

offset by available City highway funds. For awareness of the magnitude of the potential subsidy, the following is offered: the City general fund subsidy proposed in fiscal year 2002-03 to subsidize the bus system's operating and maintenance cost is $42,176,000.[17]

PROJECTED CITY GENERAL FUND SUBSIDY,
AFTER NET CITY HGIHWAY FUND OFFSET,
FOR REFINED BRT ALTERNATIVE'S OPERATIING AND MAINTENANCE
IN FISCAL YEARS 2004-05 AND 2009-10
(In Thousands of Dollars)

	FY 2004-05	FY 2009-10
Projected City General Funds Necessary For Refined BRT Alternative's Operating And Maintenence After Offset By City Highway Funds (Calculated as Follows: City General Fund Subsidy In Table 6.1-5 On Page 6-13 of SDEIS Less net City Highway Funds Available for Offset In Preceding Table.)	$89,642 ($98,817 less $9,175)	$126,222 ($132,813 less $6,591)

[17] *See page C-16 of The Executive Program And Budget, Fiscal Year 2003, Volume I: Operating Program And Budget.*

Response: An extensive analysis was conducted of the projected level and composition of City operating support associated with the Refined LPA for the FEIS. (See attached table). As noted in your comment, the City's operating support for transit is through transfers to the Bus Transportation Fund from the City Highway Fund and the City General Fund. In FY 2003, these transfers were approximately $34.0 million from the City Highway Fund and approximately $48.0 million from the City General Fund – the starting points for City operating support used in the cash flow analysis of the Refined LPA. In terms of composition, in 2003 the operating support was provided 42% from the City Highway Fund and 58% from the City General Fund.

Over the 2003-2025 projection period, the level of City operating support for transit is projected to increase in relation to the growth of transit operating costs and revenues. As shown in the attached table, in Year of Expenditure Dollars (inclusive of inflation), the total level of City operating support is projected to increase at a compound annual growth rate of 3.94%, from $81.9 million in 2003 to $191.7 million in 2025. In terms of constant 2002 dollars (excluding inflation), this is equivalent to the level of City operating support increasing at a compound annual growth rate of 1.41%.

ANALYSIS OF PROJECTED CITY OPERATING SUBSIDY FOR TRANSIT SERVICES FOR THE REFINED LOCALLY PREFERRED ALTERNATIVE IN THE FEIS

	City Operating Subsidy, by Source (In Year of Expenditure Dollars, with Inflation	City Highway Fund (assuming 1%/yr growth from 2003 level)	City General Fund (balance remaining after Highway Fund)	% City Highway Fund	% City General Fund		Inflation Factor (at 2.5% per year inflation)	City Operating Subsidy in 2002 Constant Dollars
2003	$81,861	$33,990	$47,871	41.52%	58.48%		1.0250	$79,865
2004	$85,310	$34,330	$50,989	40.24%	59.76%		1.0506	$81,206
2005	$108,701	$34,673	$72,028	32.50%	67.50%		1.0769	$99,062
2006	$103,905	$35,020	$68,885	33.70%	66.30%		1.1038	$94,133
2007	$105,845	$35,370	$70,276	33.48%	66.52%		1.1314	$93,575
2008	$114,956	$35,724	$79,232	31.08%	68.92%		1.1597	$99,126
2009	$121,475	$36,081	$85,393	29.70%	70.30%		1.1887	$102,192
2010	$121,887	$36,442	$85,425	29.90%	70.10%		1.2184	$100,022
2011	$134,145	$36,806	$97,338	27.44%	72.56%		1.2489	$107,413
2012	$123,060	$37,174	$85,886	30.21%	69.79%		1.2801	$96,135
2013	$125,214	$37,546	$87,668	29.99%	70.01%		1.3121	$95,431
2014	$144,708	$37,922	$106,786	26.21%	73.79%		1.3448	$107,589
2015	$148,084	$38,301	$110,783	25.86%	74.14%		1.3785	$106,148
2016	$152,251	$38,684	$113,567	25.41%	74.59%		1.4130	$107,752
2017	$156,685	$39,071	$117,614	24.90%	75.10%		1.4483	$108,223
2018	$162,609	$39,461	$123,207	24.26%	75.74%		1.4845	$109,578
2019	$167,838	$39,856	$127,980	23.75%	76.25%		1.5216	$110,301
2020	$173,186	$40,255	$132,914	23.25%	76.75%		1.5597	$111,030
2021	$175,804	$40,657	$135,247	23.11%	76.89%		1.5987	$110,033
2022	$178,400	$41,064	$134,336	23.41%	76.59%		1.6386	$107,041
2023	$178,368	$41,474	$133,894	23.85%	75.15%		1.6796	$104,412
2024	$181,740	$41,889	$149,851	21.85%	78.15%		1.7216	$111,375
2025	$191,641	$42,308	$149,334	22.08%	77.92%		1.7646	$108,603

Compound Annual Growth Rate of City Operating Subsidy, with Inflation, 2003-2025 3.94%

Compound Annual Growth Rate of City Operating Subsidy, in constant dollars, 2003-2025 1.41%

62. *Unlike the DEIS, the SDEIS does not discuss assumptions regarding the growth of the City highway fund. The assumptions are important since the conceptual capital funding plan proposes the use of City highway funds to pay the debt service incurred for the Refined BRT Alternative. Policy makers should be made aware of whether the City highway funds will have to be diverted from bus operations or other highway-related programs.*

The following table displays the City highway fund revenues and percentage changes from the fiscal year 1995-96 through the fiscal year 2000-01.

CITY HIGHWAY FUND REVENUES
(In Thousands Of Dollars)

	FY 95-96	FY 96-97	FY 97-98
Revenues	$96,974	$97,513	$99,129
% Change From Previous Year	0.07%*	0.6%	1.7%
	FY 98-99	FY 99-00	FY 00-01
Revenues	$94,620	$94,275	$102,904
% Change From Previous Year	(4.5%)	(0.4%)	9.2%

* *The amount of revenues in fiscal year 1994-95 was $96,908,000.*

Sources: Pages with the income statements for the City highway fund in the Comprehensive Annual Financial Report for the pertinent fiscal years.

a. *If the financial plan for the Refined BRT Alternative assumes a City highway fund growth rate inconsistent with the approximate 1.2 percent average annual rate in the table, justification for the assumption should be provided.*

Response: The SDEIS did not change any assumptions regarding the growth of the City highway fund that were used in the DEIS. Additional information made available prior to the FEIS shows Highway Fund revenues increased at a compound annual growth rate of 0.62 percent, with the major revenue sources in the Fund projected by the Finance Department to increase 1.6 percent annually over the next five years. For purposes of the financial analysis in the FEIS, the Highway Fund was projected to increase a more conservative 0.5 percent per year.

b. *The City Administration's assumption on the growth rate of City highway fund expenditures for non-transit City programs also should be provided. Knowing the assumption should assist policy makers in determining whether the City highway fund will be sufficient to pay for both transit and non-transit programs. If the growth rate differs from the 2.5 annual inflation rate assumed for the SDEIS, the difference should be justified.*

Response: We agree, and to the extent that such assumptions are known by the City, they have and will be built into the analysis.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

FORWARDED:

BENJAMIN B. LEE, FAIA
Managing Director

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Chapter 7.0

Comments and Responses Neighborhood Boards and Community Groups

CONCERNS and QUESTIONS PERTAINING TO THE PROPOSED IN-TOWN BRT TRANSPORTATION PLAN

Testimony Submitted by the Planning and Land Utilization Committee, Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board

At the Committee meeting of October 25, the members of the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board reviewed several points pertaining to the proposed In-Town BRT transportation plan. At a Special Meeting scheduled for November 2, the committee will be presenting the following concerns and questions to the full Board, with the recommendation to reject the In-Town BRT portion of the proposed plan. Many of these questions and concerns have echoed throughout the area during community meetings on this proposal on September 28, and October 2, 5, 12, 16, 17, 23 and 25.

Transportation and Land Use Patterns

Transportation planning is dependent on land use planning, yet the Primary Urban Center Development Plan revision has not been reviewed, approved, or adopted. Why is the transportation plan being placed ahead of the PUC Development Plan?

Why is the transit corridor being proposed for Kapiolani Boulevard, along which are large, undeveloped parcels, when there are more people on King Street?

In addition, the permanent BRT system proposed is planned to loop around Waikiki. Ironically, this displaces the local circulator with more frequent and convenient stops. This also jeopardizes the survival of local carriers who service Waikiki successfully and without subsidy, as disclosed in Appendix B of the 1999 Joint Waikiki Task Force Report.

Why would the City entertain the notion to intrusively impact internal traffic patterns and visitor center support services with a high-capacity transit corridor in Waikiki?

Dept. Com. No. 815

Transit System Technology Not Selected

The DEIS states that candidate technologies are not yet fully proven, so a decision on the type of transit technology need not be made at this point. If such a decision cannot be made, why is the City moving on a fast track towards approval of a $1 Billion System, including equipment replacement - all to be paid by the taxpayer. What services and capital improvements will be necessary to sacrifice so this system can be paid for without raising taxes?

No physical traffic testing has been conducted to demonstrate the impact of the proposed separated lanes for the In-Town BRT, on Kapiolani Boulevard, University Avenue, Kainkaua Avenue, Kapahulu Avenue and Kuhio Avenues, or to show that lane dedication will result in less traffic congestion. In fact, current conditions demonstrate that when lanes are blocked or closed on main thoroughfares, traffic migrates into peripheral areas and neighborhoods to circumvent the congestion.

There are no physical traffic tests in the Kapiolani/Kalakaua corridor to show that traffic congestion will not increase exponentially with the re-allocation of existing lanes to dedicated high-occupancy lanes, yet this plan is proposed to be permanently fixed within our main traffic arteries.

Undisclosed Peripheral Parking to Serve the Proposed Fixed Transit in Waikiki

Peripheral parking locations to support the proposed In-Town BRT system from Kapiolani to Kapahulu are undisclosed in the DEIS. What impact will this have on the surrounding communities? The BRT Waikiki terminus is proposed for Kapahulu Avenue, yet the only available parking is at the Zoo parking lot which is on Trust land and specific to park use. However, the 1999 Joint Waikiki Task Force Report recommends such facilities be placed at the Kapahulu Library or the base yard at the Ala Wai golf course.

Undisclosed Linkage to Surrounding Communities

A "Kaimuki Transit Center" is listed with the Iwilei Transit Center and the Middle Street Transit Center in the DEIS, which states that "connections... to the regional and in-town BRT systems would occur at transit centers." However, the DEIS neither describes nor illustrates any linkage to the Kaimuki Transit Center which is now known to be planned for Waialae Avenue. In addition, the proposed Primary Urban Center Development Plan revision issued in 1999 refers to "high capacity transit corridors" proposed for Kapahulu Avenue (Ala Wai golf course/park), Date Street, and Waialae Avenue. The PUC Development Plan revision also proposes "urban villages" and "village inns" on consolidated lots along these routes. Such consolidated development accessed by high capacity transit corridors also is proposed for McCully-Moiliili along King Street, Date Street, the Sheridan area, and for Bingham Tract. Yet, all of the above linkages are virtually undisclosed and remain unaddressed in the DEIS.

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Environmental Impact Statements are required for proposed publicly-funded projects when a finding of significant impact is made. Environmental Impact Statements are to address the cumulative impact of the larger project, as has been reaffirmed by the Hawaii State Supreme Court.

Impact on Parks

The DEIS is deficient by neglecting to disclose that Kapiolani Park is within the Diamond Head Special District, is listed on the Hawaii State Register of Historic Places, and is governed under the protective provisions of a public charitable Trust which precludes construction of municipal facilities and any other encumbrance of Trust lands.

We have learned through the DEIS and at a series of public meetings that a total of 24 power substations for the proposed system will be placed every half mile. These are described as being the size of a small house, and one is planned to be placed in Kapiolani Park, as shown on Transportation Map 14 dated July 24.

Loss of Street Landscaping

Impact on monkeypod tree corridor along Kapiolani

The DEIS states that "The majority of trees potentially affected are the monkeypods along Kapiolani Boulevard from Pensacola Street to Isenberg Street" where they will be removed, relocated or cut back to make way for the transit corridor (5-28)

Impact on shower trees along University

X The DEIS states that the transit corridor will be constructed in the median lanes of University, thus necessitating the removal of the Shower trees recently planted.

Impact on monkeypod trees in Kapiolani Park

X The DEIS notes that monkeypod trees will be removed, replaced or cut back in Kapiolani Park

Loss of new landscaping fronting the Hawaii Convention Center

The DEIS states that "some landscaping would be lost fronting the Conventio n Center on the makai side of Kapiolani Boulevard in order to widen the Kapiolani/Kalakaua intersection to make way for the BRT. With the recently-planted lush landscape screening removed, would we then be left with a huge concrete facade which was intended to be concealed by landscaping?

Impact on Waikiki Burial Sites and Viewplanes Along Kalakaua Avenue

The BRT is planned to run along a separated traffic lane on the makai side of Kalakaua Avenue. The Kalakaua Avenue/Waikiki Beach coastal viewplane is listed as one of Oahu's significant views identified in the City's Coastal View Study". Thus the proposed electro-plate tram corridor appears to be misplaced and counter to the "Hawaiian Sense of Place" that continues to elude City planners.

Kalakaua Avenue is also the location of ancient Hawaiian burials. Curiously, this is neither mentioned nor addressed in the DEIS, which refers only to burial sites along Middle Street and Kalia Road.

Why would the City entertain the notion to intrusively impact shoreline viewplanes, historic sites, and surrounding communities with a high-capacity transit corridor and peripheral requirements in Waikiki? Would not this transit experiment be better suited and better placed in the more open areas of Kapolei and Central Oahu - where there could be more efficient use of time-proven technology and more time saved for more people over longer distances to the downtown destination?

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DIAMOND HEAD/KAPAHULU/ST. LOUIS HEIGHTS NEIGHBORHOOD BOARD NO. 5

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

RESOLUTION

IN SUPPORT OF THE -T S M - ALTERNATIVE AND
INCREASED FLEXIBILITY OF OAHU'S TRANSPORTATION SYSTEM
AND
IN OPPOSITION OF IN-TOWN PERMANENTLY FIXED TRANSIT LANES
ON KAPIOLANI BOULEVARD, UNIVERSITY AVENUE, KALAKAUA AVENUE,
KAPAHULU AVENUE, AND KUHIO AVENUE

WHEREAS, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board recognizes and appreciates the current progress and commitment of the City and County of Honolulu to improve and succeed with the Transportation System Management program, including a flexible hub-and-spoke local circulator system, and an articulated Express Bus and zipper lane system; and

WHEREAS, on August 16, 2000 the City and County of Honolulu issued a Major Investment Study and Draft Environmental Impact Statement for the Primary Urban Corridor Transportation Project (MIS/DEIS); and

WHEREAS, several community informational meetings have been held for the purpose of interpreting the MIS/DEIS prior to the public comment deadline of November 6, including on September 28 (community leaders at the Legislature), October 2 (community comments at the Convention Center), October 16 (in-town area concerned citizens discussion), October 17 (League of Women Voters meeting), October 23 (McCully-Moiliili district community meeting), October 25 (Diamond Head/Kapahulu/St. Louis Heights district community meeting), with opportunities for public testimony before the City Council Transportation Committee during two special informational meetings on October 5 and October 26, and as required by the regulatory process on October 12; and

WHEREAS, there is overriding concern that although transportation planning is dependent on land use planning, the proposed in-town transit plan is being quickly placed ahead of the 1999 Primary Urban Center Development Plan revision which has not been publicly reviewed, approved, or adopted; and

WHEREAS, there is overriding concern that no physical traffic testing has been conducted to determine the impact of separated lanes for the proposed in-town tram corridors on Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenue, or to demonstrate that such traffic lane re-allocation will result in less traffic congestion; and

WHEREAS, although this system is proposed to be permanently fixed within Honolulu's main traffic arteries, there is overriding concern that no physical traffic tests in the Kapiolani/Kalakaua corridor have been conducted to demonstrate that vehicular traffic congestion will not increase exponentially with the permanent re-allocation of existing vehicular traffic lanes to dedicated high-occupancy lanes, and that traffic squeezed out of these main thoroughfares will not overflow or migrate into the surrounding communities and neighborhoods, as now demonstrated by current conditions during roadwork, water main, and other infrastructural repairs; and

WHEREAS, the the MIS/DEIS relies on arbitrary ridership projections based on today's needs for the proposed in-town transit system (stemming from the 1990 islandwide Oahu Census, as revised downward by 50,000 in 1999 by the State Department of Business, Economic Development and Tourism and as arbitrarily allocated solely to the Primary Urban Center) but does not take into consideration a) the decrease in automobile registrations and bus ridership, b) more employees and businesses choosing "telecommuting", and c) the State administration advocating staggered work hours for City and State employees, nor does the MIS/DEIS disclose who the potential riders are and how the operations costs and subsidies would be shared between the proposed in-town ridership and Honolulu taxpayers; and

WHEREAS, there is overriding concern that a permanent in-town tram system is proposed to consume a needed eastbound traffic lane on Kalakaua Avenue so it might loop around Waikiki - displacing local circulator carriers who provide frequent and convenient stops, jeopardizing the survival of such carriers who service Waikiki successfully and without subsidy (see: 1999 Joint Waikiki Task Force report, Appendix B), and impacting transport and delivery routes for goods and services that are Waikiki's lifeline to survival as a major visitor destination; and

WHEREAS, there is overriding concern that the MIS/DEIS discloses that candidate technologies for the proposed in-town system are not yet fully proven and a decision on the type of transit technology cannot be made at this point, yet the City is moving on a fast track towards approval of a $1 billion system, including future equipment replacement; and

WHEREAS, because the technology proposed for the in-town tram transit system has not been selected, there is overriding concern that state-of-the-art technology is advancing so rapidly that such a permanently-fixed system as the one proposed may indeed be outdated by more flexible alternative energy systems before it can be completed; and

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WHEREAS, there is overriding concern that elected City officials have recently claimed there will be no increase in taxes to build the proposed in-town transit system, but they neglect to define whether any City services or necessary capital improvements will be sacrificed so this system can be paid for without raising taxes; and

WHEREAS, there is overriding concern that peripheral parking locations for Waikiki hotel and shop employees as recommended in the Joint Waikiki Task Force report of December, 1999, and the power sub-station locations to be built every half mile to support the proposed fixed in-town tram system from Kapiolani Boulevard to Kapahulu Avenue as mentioned in the MIS/DEIS, and their impacts on surrounding communities and parklands, are undisclosed in the MIS/DEIS; and

WHEREAS, there is overriding concern that the proposed Primary Urban Center Development Plan revision issued in 1999 refers to "high capacity transit corridors" on Waialae Avenue, Date Street, and Kapahulu Avenue (where the Ala Wai Golf Course is now being planned to become a major regional park attraction), and that the PUC Development Plan revision also proposes "urban villages" and "village inns" to be developed on consolidated lots along these routes, with such consolidated development accessed by high capacity transit corridors also proposed for McCully-Moiliili along King Street, Date Street, the Sheridan area, and for Bingham Tract, yet all of the above linkages are virtually undisclosed and remain unaddressed in the DEIS, which specifically refers to "Transit Villages of the Twenty-First Century" as a resource document; and

WHEREAS, there is substantive concern that an undefined "Kaimuki Transit Center" is listed with the Iwilei Transit Center and the Middle Street Transit Center in the DEIS, which states that "connections... to the regional and in-town BRT systems would occur at transit centers," however, the DEIS neither describes any location nor illustrates any linkage to the "Kaimuki Transit Center," which is also now represented to be planned as a neighborhood bus stop adjacent to a school on Waialae Avenue or could be developed at other locations such as Market City; and

WHEREAS, there is overriding concern that the MIS/DEIS is deficient by neglecting to disclose that Kapiolani Park is within the Diamond Head Special District, that Kapiolani Park is listed on the Hawaii State Register of Historic Places, that Kapiolani Park is protected under the provisions of a public charitable Trust which precludes construction of municipal facilities or any other encumbrance of Trust lands, and that one of 24 power sub-stations the size of a "small house" is planned to be constructed within Kapiolani Park Trust lands (see: In-Town BRT Map No. 14, dated July 24, 2000); and

WHEREAS, there is overriding concern that a) the MIS/DEIS states that "The majority of trees potentially affected are the monkeypods along Kapiolani Boulevard from Pensacola Street to Isenberg Street" where they will be removed, relocated or cut back to make way for the transit corridor, b) that transit corridor exclusive median lanes will be constructed along the length of University Avenue, together with platforms and divisive curbs that bisect the main thoroughfare and the community and neighborhoods through which it runs, and which will necessitate the

and the community and neighborhoods through which it runs, and which will necessitate the removal of the recently-planted Shower trees, and c) that historic monkeypod trees will be removed, replaced or cut back in the vicinity of Kapiolani Park, yet the MIS/DEIS is vague and unresponsive regarding the exact locations, and the size and value of these historic trees and landscapes; and

WHEREAS, there is serious concern that the MIS/DEIS states that "some landscaping would be lost fronting the Convention Center on the makai side of Kapiolani Boulevard in order to widen the Kapiolani/Kalakaua intersection" to make way for the BRT, and, with the recently-planted lush landscape screening removed, this prominent street frontage would then be left with a huge concrete facade which was intended to be concealed, softened and cooled by landscaping; and

WHEREAS, there is serious concern that the planned changes to the physical environment, including the removal of trees and the addition of lanes bisecting neighborhoods, will contribute to a loss in the quality of life for the residents living adjacent to these transit corridors; and

WHEREAS, there is serious concern that the in-town tram system is planned to run along a separated traffic lane on the makai side of Kalakaua Avenue, impacting the Kalakaua Avenue/Waikiki Beach coastal viewplane, listed as one of Oahu's significant views identified in the City's "Coastal View Study"; and

WHEREAS, there is serious concern that the in-town tram system is planned to run along a separated traffic lane on the makai side of Kalakaua Avenue, further impacting ancient Hawaiian burials, which are neither mentioned nor addressed in the MIS/DEIS, which refers only to burial sites along Middle Street and Kalia Road; and

WHEREAS, Environmental Impact Statements are required for proposed publicly-funded projects when a finding of significant impact is made, and are required to address the cumulative impact of the larger project, as has been reaffirmed by the Hawaii State Supreme Court; and

WHEREAS, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board recognizes that public concerns have escalated regarding the proposed in-town separated transit lanes, and public comments from the community sector have repeatedly reflected questions and concerns in common that indicate the MIS/DEIS a) premature and without the capability to represent a defined technology or related costs thereof, b) segmented and does not address the cumulative impact of the larger project as required by federal and state environmental impact statement regulations, and c) incomplete by neglecting to address the types of transit contemplated to access certain locations, the linkage to and types of transit centers and facilities at other locations, and how the components of the proposed plan correlate with the existing Primary Urban Center Development Plan and its 1999 proposed revisions, and d) inadequate in defining mitigation of the increased congestion caused by converting existing traffic lanes into separate transit corridors to accommodate fixed transit lanes; now therefore

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BE IT RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board requests that further consideration of the MIS/DEIS be delayed until the Primary Urban Center Development Plan revision has been publicly reviewed, approved, and adopted - including any conceptual "urban villages" and "village inns" proposed to be developed on consolidated lots and accessed by "high capacity transit corridors" along Waialae Avenue, Date Street, and Kapahulu Avenue (where the Ala Wai Golf Course is now being planned to become a major regional park attraction), as well as in McCully-Moiliili along Date Street, King Street, the Sheridan area, and within Bingham Tract - since transportation planning is integrally related to land use planning; and

BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board requests that further consideration of the MIS/DEIS be delayed until all segments of the larger project are fully disclosed and described in the MIS/DEIS, including peripheral parking locations contiguous to Waikiki and linkages to outlying transit centers at undisclosed locations, such as the "Kaimuki Transit Center" mentioned in the MIS/DEIS; and

BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes closure of vital vehicular traffic lanes and re-allocation of such to any separated high-occupancy vehicle transit lanes from Ward Avenue to Kapahulu Avenue until physical traffic testing is conducted over a period of several months, including along Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenues, to demonstrate successful mitigation of the expected exponential traffic overflow impact on surrounding communities and neighborhoods; and

BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town fixed and separated transit corridor loop around Waikiki, including along Kapahulu Avenue, that disrupts the transport and delivery of goods and services, that displaces local circulator carriers who provide frequent and convenient stops, that jeopardizes the survival of such carriers who service Waikiki successfully and without subsidy, and that impacts transport and delivery routes for goods and services that are Waikiki's lifeline to survival as a major visitor destination; and

BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town fixed and separated transit corridor loop around Waikiki, including along Kapahulu Avenue, a) that necessitates the construction of power substations and peripheral parking for its support within the Diamond Head Special District and/or within Kapiolani Park Trust lands as listed on the Hawaii State Register of Historic Places, and b) that is permanently embedded on the makai side of Kalakaua Avenue, impacting the one of Oahu's significant views, the Kalakaua Avenue/Waikiki Beach coastal viewplane, and disturbing ancient Hawaiian burials along the Kalakaua Avenue shoreline; and

BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town fixed and separated transit corridor a) along Kapiolani Boulevard where the MIS/DEIS states that, "The majority of trees potentially affected are the monkeypods along Kapiolani Boulevard from Pensacola Street to Isenberg Street" where they will be removed, relocated or cut back to make way for the transit corridor, b) along University Avenue where a fixed two-way transit corridor is planned to be constructed in the street median, thus necessitating the removal of the recently-planted Shower trees, c) within the Kapiolani/Kalakaua intersection on the makai side of Kapiolani Boulevard where the MIS/DEIS states that the recently-planted costly landscaping fronting the Convention Center would be lost to make way for the BRT, and d) within the Diamond Head Special District and Kapiolani Park Trust lands where the MIS/DEIS indicates historic monkeypod trees will be removed, replaced or cut back; and

BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board requests delay of an in-town separated high-occupancy vehicle lanes along Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenues until a) candidate technologies for the proposed in-town system are fully proven and a decision on the type of transit technology can be made, b) advancing state-of-the-art technology can ensure a reliable, economic and efficient transportation system with more flexible operations, and c) until the City and County of Honolulu can demonstrate that the cost to develop such a system will ensure that there will be neither an increase in local taxes nor sacrificing of City services, repairs, operations, improvements, or any other necessary day-to-day functions of the City, no matter whether they are budgeted and funded under capital improvements or under operations; and

BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes any high-capacity transit corridor, peripheral facilities and ancillary infrastructure that will adversely or intrusively impact Waikiki shoreline viewplanes, historic sites and landscapes, parklands, internal traffic patterns, visitor centet support services, surrounding communities and neighborhoods, and the "Hawaiian Sense of Place"; and

BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board advocates full reconsideration of planning high-capacity transit corridors from Ward Avenue to Kapahulu Avenue and determination in the future where there could be more efficient and flexible use of time-proven technology with more time saved for more people over longer distances to the downtown destination; and

BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board rejects the "Bus Rapid Transit" (BRT) Alternative, a fixed grade-level separated transit lane system proposed for the area inclusively between Middle Street and Kapahulu Avenue, and specifically along Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue, and Kuhio Avenue, for the reasons stated and outlined above; and

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BE IT FURTHER RESOLVED that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board strongly recommends the Transportation System Management (TSM) Alternative, a flexible and modifiable bus transit system, as the Preferred Alternative for the Primary Corridor Transportation Project, and supports the best efforts of the City and County of Honolulu to fulfill the commitment to expand and upgrade Honolulu's present bus transportation system to it fullest potential and to ensure that it is efficient, cost-effective and reliable; and

BE IT FINALLY RESOLVED, that this Resolution be sent via U.S. Postal Service Certified Mail to the Regional Administrator, Region IX, Federal Transit Administration; Governor Ben Cayetano, State of Hawaii; State Historic Preservation Division; Department of Land and Natural Resources; Director Kazu Hayashida, State Department of Transportation; State Senators Les Ihara, Jr., Carol Fukunaga, and Brian Taniguchi; State Representatives Calvin Say, Brian Yamane, Scott Saiki and Galen Fox; Mayor Jeremy Harris, City and County of Honolulu; Honolulu City Councilmembers Duke Bainum, Andy Mirikitani, Jon Yoshimura, Romy Cachola, Gary Okino, John DeSoto, Rene Mansho, Steve Holmes and John Henry Felix; Director Cheryl Soon, Department of Transportation Services; Director Randall Fujiki, Department of Planning and Permitting; Neighborhood Boards 2 through 11; the League of Women Voters; Scenic Hawaii, Inc.; the Outdoor Circle; Kapiolani Park Preservation Society; Kapiolani Park Advisory Council; Save Diamond Head Association; Waikiki Residents Association; Kapahulu Neighbors Association; E Noa Tours; Charley's Taxi; TransHawaiian Services; Hawaii Teamsters and Allied Workers Local 996; Hawaii Hotel Association; and the Waikiki Improvement Association.

Resolution adopted by the Diamond Head/Kapahulu/St. Louis Neighborhood Board on November 2, 2000.

Karen Ah Mai

Karen Ah Mai, Chairperson

DIAMOND HEAD/KAPAHULU/ST. LOUIS HEIGHTS NEIGHBORHOOD BOARD NO. 5

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

November 6, 2000

Ms. Donna Turchie
Senior Transportation Representative
Federal Transit Administration, Region IX
U.S. Department of Transportation
201 Mission Street, Suite 2210
San Francisco, California 94105-1839

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State Office Tower, Suite 702
235 South Beretania Street
Honolulu, Hawaii 96813

Ms. Cheryl Soon
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Mr. Robert Bramen
Parsons, Brinckerhoff, Quade & Douglas, Inc.
Pacific Tower, Suite 3000
1001 Bishop Street
Honolulu, Hawaii 96813

Subject: Primary Corridor Transportation Project
Major Investment Study/Draft Environmental Impact Statement

Dear Ms. Turchie, Ms. Salmonson, Ms.Soon and Mr. Bramen:

Enclosed please find our response to the Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement. This response was transmitted via facsimile to the State Office of Environmental Quality Control and the City Department of Transportation Services on November 6, 2000.

We are pleased to inform you that we strongly support continuation and full implementation of the flexible and modifiable Transportation Service Management (TSM) Alternative to serve the entire Primary Corridor, including the urban Honolulu segment between Middle Street and Kaimuki. However, with respect to Bus Rapid Transit (BRT) Alternative, there appears to be sufficient reason to expect significant adverse In-Town impacts from the magnitude of this proposed cumulative transportation project on traffic patterns, business districts, neighborhoods, private transportation carriers, and surrounding communities.

Thus, we find we can neither support nor recommend the proposed In-Town BRT Alternative for the purpose of the public decision-making process on this project.

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For the purpose of this response, you will find that our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following:

- lack of correlation to pending Primary Urban Center development plan revisions;
- absence of information and location of impacts on registered historic sites, landscapes, parklands, and ancient burial sites;
- incomplete and questionable community involvement and consensus in recommending specific components, facilities, and routes for the BRT Alternative;
- absence of traffic testing for cumulative traffic impacts;
- public and private circulator transportation, service and delivery operations and traffic impacts;
- major infrastructure and utility impacts;
- absence of defined and proven technology and associated cumulative capital costs and operations subsidies;
- absence of ancillary facilities descriptions, locations, linkages and impacts on surrounding communities;
- compromised present quality of life and "Hawaiian Sense of Place", e.g. destruction and/or adverse impact to scenic viewplanes and landscapes to provide for embedded rapid transit infrastructure, utilities and facilities;
- incomplete expansion and improvement of the present Transportation Service Management program to its fullest potential, including the hub-and-spoke circulator system, express and articulated vehicles, dedicated freeway "zipper" lanes, and public and private ridership incentives, prior to consideration of an embedded rapid transit alternative.

Therefore, based on the information provided for the purpose of the public decision-making process on this project, by strong consensus we have elected to reject the In-Town BRT Alternative. A copy of the Board's Resolution to this effect is provided for your review. In addition, we will be presenting this recommendation along with our concerns to the Honolulu City Council during their deliberations on Resolution 00-249, "Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project".

We look forward to your response on the attached concerns, questions and comments.

Very truly yours,

Karen Ah Mai, Chairperson
Diamond Head/Kapahulu/St. Louis Heights
Neighborhood Board

Michelle Spalding Matson
Planning and Land Utilization
Committee Chairperson

cc: Federal Highway Administration
Oahu Metropolitan Planning Organization
Honolulu City Council

DIAMOND HEAD/KAPAHULU/ST. LOUIS HEIGHTS NEIGHBORHOOD BOARD NO. 5

c o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

RESPONSE TO THE PRIMARY CORRIDOR TRANSPORTATION PROJECT MAJOR INVESTMENT STUDY/DRAFT ENVIRONMENTAL IMPACT STATEMENT:

CONCERNS, QUESTIONS and COMMENTS

The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board recognizes and appreciates the current progress and commitment of the City and County of Honolulu to improve and succeed with the Transportation System Management (TSM) program, including a flexible hub-and-spoke local circulator system, and an articulated Express Bus and zipper lane system. The City administration, in attempting to address this goal over the past eight years, is now demonstrating some success with TSM objectives as the City's potential to meet this commitment is slowly being explored.

But now comes the Major Investment Study and Draft Environmental Impact Statement for a Primary Urban Corridor Transportation Project (MIS/DEIS), introduced by the City administration on August 16, 2000. This document logically includes progressive implementation of the TSM components for the West Oahu area to Middle Street, on the periphery of downtown Honolulu. However, upon addressing the downtown area, the City proposes to develop an entire new embedded system, the Bus Rapid Transit (BRT) Alternative, along established landscaped boulevards and scenic routes within the urban area up to and including the shoreline resort area of Waikiki.

The proposed embedded system, envisioned and presented by City officials as a simulated generic electrically-propelled articulated tram arriving every two (2) to four (4) minutes, is presently whizzing by the Honolulu public in the form of a potential City Council Resolution. City officials have developed a folksy promotional which focuses on their already-apparent preferred alternative, the in-town BRT as described in the MIS/DEIS. Presentations given to the Waikiki area community on the proposed system were held by City officials in rapid sequence on October 2, October 5, October 12 and October 26 in anticipation of one (1) City Council Transportation Committee meeting on November 14, and one (1) full City Council meeting on November 29 to decide on their Preferred Alternative. In addition, several Waikiki area community informational meetings have been held attempting to interpret, evaluate and respond to the MIS/DEIS by the public comment deadline on November 6, including on September 28 (community leaders at the Legislature), October 16 (in-town area concerned citizens discussion), October 17 (League of Women Voters meeting), October 23 (McCully-Moiliili district community meeting), October 25 (Diamond Head/Kapahulu/St. Louis Heights district community meeting). Over this short time, public concerns have escalated regarding the proposed in-town separated transit lanes, and public testimony from the community sector has repeatedly reflected questions and concerns in common.

THE PRIMARY URBAN CENTER DEVELOPMENT PLAN or THE PRIMARY CORRIDOR TRANSPORTATION PROJECT? - THE CART BEFORE THE HORSE

A significant point that has been repeatedly stated by representatives of the interested and affected community is that the proposed in-town transit plan is being quickly placed ahead of the 1999 Primary Urban Center Development Plan revision, even though transportation planning decisions depend upon existing land uses and land use planning in the urbanized Honolulu area. Although some may emphasize that subsidized rapid transit drives development, thus benefitting private investors and landowners at the expense of the Honolulu taxpayer, established land uses demand that transportation planning must follow adopted development plan guidelines.

The finalized PUC Development Plan revision has not been publicly reviewed, approved, or adopted, although a draft version was floated by the City administration one year ago with public informational meetings held during the holiday season in 1999. The proposed Development Plan draft revision also promoted the concept of "high capacity transit corridors" on Waialae Avenue, Date Street, and Kapahulu Avenue, where the Ala Wai Golf Course is now being envisioned by the State administration to become a major regional park attraction, and "urban villages" and "village inns" to be developed on consolidated lots along these routes, - with such consolidated development accessed by high capacity transit corridors also proposed for the McCully-Moiliili area along King Street and Date Street, the Sheridan area, and Bingham Tract. Yet, all of the above linkages are virtually undisclosed and remain unaddressed in the MIS/DEIS, which specifically refers to "Transit Villages of the Twenty-First Century" as a resource document (MIS/DEIS @ 5-6). Therefore, it is highly evident that the MIS/DEIS is incomplete even in draft form, and it is of overriding concern that the cumulative impact of the Larger Project remains undisclosed.

In addition, there is also justified concern about the undisclosed linkage to an undefined "Kaimuki Transit Center", as listed with the Iwilei Transit Center and the Middle Street Transit Center in the MIS/DEIS (figure 2.5-1B @ 2-39) which states that "connections... to the regional and in-town BRT systems would occur at transit centers" and "enhanced local circulation and access to the BRT systems..." and "Intermodal access (e.g., automobile, pedestrian, bicycle) and intramodal access (e.g., connections between feeder and line haul transit routes) to the regional and in-town BRT systems would occur at transit centers and park and ride lots" (MIS/DEIS @ 2-18 and 2-22). Further, the D-EIS describes transit centers as having certain characteristics, such as passenger shelters, retail and public facilities, and street furniture, ornamental lights and landscaping (MIS/DEIS @ 5-40). However, the MIS/DEIS neither describes any location nor illustrates any linkage to the "Kaimuki Transit Center," which is also now represented at public meetings to be planned as a "neighborhood bus stop" adjacent to a school on Waialae Avenue. However, because this proposed facility it is charted in the MIS/DEIS as a Transit Center at an undisclosed location in Kaimuki, by such mention the MIS/DEIS might also be authorizing such a development at other hub sites on Waialae Avenue, such as Market City where Kapiolani Boulevard, Kapahulu Avenue and Waialae Avenue intersect.

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Of equal concern is the curious absence of peripheral parking locations for Waikiki hotel and shop employees as briefly mentioned in the MIS/DEIS and as independently recommended in the Joint Waikiki Task Force report of December, 1999, and the impact this will have on surrounding communities. However, the MIS/DEIS does point out that it has been seen in other cities that most land use impacts are generally concentrated within 1/4 mile of a transit stop (MIS/DEIS @ 5-10).

The PUC Development Plan portends, "Develop strategically located parking garages to support... transit stations" and " ...a comprehensive transportation system... can be accomplished through the use and development of... parking areas on the periphery..." (PUC-DP @ 4-2 and 4-15). The 1999 Joint Waikiki Task Force report states that more needs to be done outside Waikiki to connect to Waikiki, that peripheral parking locations need to be provided with locations to be determined, and that passenger service should be allowed to be structured by employers (hotels and shops). (See JWTF report, Appendices K-9 and B-5.) Further, the Joint Waikiki Task Force has stated that "Development of a system of new parking sites for Waikiki and Oahu residents and employees of Waikiki businesses served by the Waikiki Circulator might include the City and County base yard on Kapahulu ...and perhaps a portion of Jefferson School (JWTF Report, p. 5). The Waikiki Improvement Association's Agenda for Kapahulu Avenue recommends encouraging the "redevelopment of the areas now occupied by the City's Kapahulu base yard (Ala Wai Golf Course) and the State's Kapahulu Library for uses consistent with... transportation needs" (JWTF Report, Appendix J, WIA Agenda Project 3). At a local visioning group meeting on June 21, a City Councilman and Kapiolani Park Trustee encouraged consideration of the Zoo parking lot in Kapiolani Park or Jefferson School as a municipal parking and transit center. And, at the City Council presentation of the MIS/DEIS and preliminary public hearing on October 5, the Waikiki Improvement Associalion representative stated, "The tram will improve access to Waikiki for employees... there is a 24-hour-day work schedule. The priority is to accommodate the Waikiki work force." The draft "Kapahulu Community Plan" dated August, 2000, also states, "At various times, the... Ala Wai Base Yard has been considered as a site for a regional transportation facility, such as peripheral parking or a bus staging area for Waikiki" and, in response to the Ala Wai base yard as a major new transit and parking facility, "In view of its proximity to Waikiki, this site has long been suggested as a location for peripheral parking for those who visit or work in Waikiki or as a staging area for commercial buses.... Advisory group members expressed concerns that a transit center and parking facility would work against uniting the Kapahulu community. The site, which is not centrally located along Kapahulu Avenue, would be mainly used as parking for employees of Waikiki hotels" (KCP @ 5-16 and Appendix A-5). In Kapahulu, where there is a concerted effort to calm traffic and revitalize the community business district, providing peripheral parking for 38,000 Waikiki hotel employees will undoubtedly have a devastating impact on the community.

The community visioning group emphasizes that "increased attention needs to be placed on Kapahulu Avenue. Beautification efforts are long overdue... Once a pleasant arterial, Kapahulu Avenue has evolved into a heavily-traveled major thoroughfare. Safety has become a major concern. Traffic calming solutions are required to ensure that Kapahulu Avenue adequately services and compliments the area's streetfront retail activity and to mitigate against the transformation of the town's main street into an unintended freeway." (JWTF Report, Ap. K-5).

As the location(s) of Waikiki peripheral parking facilities servicing the Waikiki segment of the proposed fixed transit system, and the impact of access to them through surrounding communities are not addressed in the MIS/DEIS, we emphasize that this should be accomplished before the MIS/DEIS is given further consideration.

Further, City officials claim the components of the MIS/DEIS have been chosen and crafted by the community. However, in light of community concerns and questions expressed at the recent public meetings on the MIS/DEIS, this appears to be somewhat of a misrepresentation. In fact, on November 2, the McCully-Moiliili community board announced, "The proposed dedicated fixed tram routes through McCully-Moiliili, as communicated by the City administration via the Department of Transportation Services as the preferred routes voiced by McCully-Moiliili residents during the Trans 2K community meetings, were never supported by participants from our community..." The same can be said for the Diamond Head-Kapahulu community.

The Diamond Head/Kapahulu/St. Louis Heights Neighborbood Board therefore requests that any consideration of in-town separated transit lanes be deferred until a) the Primary Urban Center Development Plan revision has been publicly reviewed, approved, and adopted; and b) until all segments of the larger project are fully disclosed and described in the MIS/DEIS, including peripheral parking locations contiguous to Waikiki and linkages to outlying transit centers at undisclosed locations, such as, but not limited to, the "Kaimuki Transit Center" briefly referenced in the MIS/DEIS.

UNDEFINED TECHNOLOGY, UNDISCLOSED COSTS

The MIS/DEIS is deficient in its analysis of alternative transportation technologies, confirms that candidate technologies for the proposed in-town system are not yet fully proven, and admits that a decision on the type of transit technology cannot be made at this point. Yet, the City is moving on a fast track towards approval of a $1 billion system at estimated base cost, including future equipment replacement. Further, the MIS/DEIS ignores that state-of-the-art technological advances will make today's plans obsolete, where such a permanently-fixed system as the one proposed may indeed be outdated by more flexible, cost-effective alternative energy systems before the proposed system can be completed.

There is also a weighty concern that elected City officials have recently claimed there will be no increase in taxes to build the proposed in-town transit system, but they neglect to define whether any City services and necessary capital improvements will be sacrificed so this system can be paid for without raising taxes.

Thus, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board advocates full reconsideration of the proposed fixed high-capacity transit corridors along Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenues to allow for a) a

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comprehensive urban Honolulu traffic management plan based on current, area-specific statistics: b) independent evaluation undertaken by nationally-recognized experts to determine where there can be more efficient and flexible use of transit options, with more time saved for more people over the greatest area; and c) future consideration of fully-proven candidate technologies, in order to define the most suitable type of transit technology for Honolulu and to ensure a reliable, economic and efficient transportation system with more flexible operations. In addition, the City and County of Honolulu will need to demonstrate the claim that the cost to develop such a system will ensure that there will be neither an increase in local taxes nor sacrificing of City services, repairs, operations, improvements, or any other necessary day-to-day functions of the City, no matter whether they are budgeted and funded under capital improvements or under operations

SITE-SPECIFIC TRAFFIC TESTING and ADDED TRAFFIC CONGESTION

Another overriding concern expressed by community leaders and concerned citizens is that no physical traffic testing has been conducted to determine the impact of separated lanes for the proposed in-town tram corridors on Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenue, or to demonstrate that such traffic lane re-allocation will result in less traffic congestion.

Consequent to separated transit corridor lanes and platforms consuming major portions of traffic aneries and thoroughfares, traffic congestion and gridlock will escalate even if fewer people are driving cars and more are using rapid transit. In addition, the MIS/DEIS states that such would result in a reduced level of service for auto traffic within the urban core.

Further, the MIS/DEIS states that parades and large events will not be affected, as rapid transit would be rerouted and replaced by buses during parades and large events (see MIS/DEIS @ 4-19 and 4-29). As parades are frequent in Waikiki, and the JWTF recommends even more festivals and parades to "Recapture the Magic of Waikiki", rapid transit could conceivably be replaced by buses more often than not.

Although this system is proposed to be permanently fixed within Honolulu's main traffic arteries, there is serious concern that there has been no effort to demonstrate that a) that no massive gridlock will occur, b) that vehicular traffic congestion will not increase exponentially with the permanent

re-allocation of existing vehicular traffic lanes to dedicated high-occupancy lanes, and c) that traffic squeezed out of these main thoroughfares will not overflow or migrate into the surrounding communities and neighborhoods, as now demonstrated by current conditions during roadwork, water main, and other infrastructure repairs.

The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes further consideration of in-town separated transit until physical traffic testing is conducted over a period of several months, including along Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenues, to demonstrate successful mitigation of the expected exponential traffic overflow impact on surrounding communities and neighborhoods.

In addition, the MIS/DEIS relies on arbitrary ridership projections for the proposed in-town transit system "based on today's needs", as stated by a City transportation consultant. Such projections stem from the 1990 islandwide Oahu Census, as revised downward by 50,000 in 1999 by the State Department of Business, Economic Development and Tourism and as arbitrarily allocated solely to the Primary Urban Center by the City for the purpose of the MIS/DEIS and qualifying for federal funds. However, in addition to arbitrary allocation of islandwide population to the Primary Urban Center for the purpose of the MIS/DEIS, such arbitrary projections do not take into consideration a) the decrease in automobile registrations and bus ridership, b) corporate incentives for ride-sharing and van-pooling, c) more employees and businesses now choosing "telecommuting" over commuting to a downtown office, and d) the State administration advocating staggered work hours for City and State employees. Nor does the MIS/DEIS disclose who the perceived potential riders are other than the current bus ridership, and how they can be cajoled out of their valued vehicles - or how the in-town fixed transit operations costs and subsidies would be shared between the proposed in-town ridership and Honolulu taxpayers. Due to such arbitrary and incomplete statistical and fiscal information, we question the urgency to make a decision on establishing the proposed in-town dedicated fixed transit system.

Expressed concerns have also been presented regarding the proposed in-town tram system's consumption of the needed eastbound traffic lane on Kalakaua Avenue so the system might loop around Waikiki. One lane removal has recently occurred, where the City has reduced four traffic lanes to three lanes along Kalakaua Avenue in order to expand the Kuhio Beach recreation area. With the proposed addition of a dedicated rapid transit lane, traffic would be reduced to two lanes that would include stopping and loading by delivery, tour and other commercial transportation vehicles. This portends disaster for Waikiki by causing further congestion and gridlock of Waikiki's internal traffic and services. Thus, removal of any of the remaining vital vehicular traffic lanes on Kalakaua Avenue is unthinkable and unwarranted.

The MIS/DEIS is deficient in addressing the proposed in-town fixed transit system's impact on private transportation systems. Pertaining to the proposed in-town fixed transit system in Waikiki, transportation carriers, unions and hotel interests have expressed concerns that include a) displacement of established local carriers who provide frequent and convenient stops, b) jeopardy to the survival of such carriers who service Waikiki successfully and without subsidy (see: 1999 Joint Waikiki Task Force report, Appendix B), c) impact to tax revenues by such losses while spending more on higher public transportation subsidies, d) restricted curb lanes for trams running every four (4) minutes that force tour buses, trolleys and taxis to unload elsewhere and to use limited vehicular lanes to do so (see MIS/DEIS @ 4-24), and d) impact on transport and delivery routes for goods and services that are Waikiki's lifeline to survival as a major visitor destination.

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The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town fixed and separated transit corridor loop around Waikiki that disrupts the transport and delivery of goods and services, displaces local circulator carriers who provide frequent and convenient stops, jeopardizes the survival of such carriers who service Waikiki successfully and without subsidy, and that impacts transport and delivery routes for goods and services.

ADDITIONAL SIGNIFICANT IMPACTS

There is paramount concern that the MIS/DEIS is seriously deficient by neglecting to disclose that Kapiolani Park is within the Diamond Head Special District; that the Park is listed on the Hawaii State Register of Historic Places; and that the Park is protected under the provisions of a public charitable Trust which precludes construction of municipal facilities or any other encumbrance of Trust lands. Although not disclosed in the MIS/DEIS, one of the 24 power sub-stations the size of a "small house" is planned to be constructed within Kapiolani Park Trust lands (see: In-Town BRT Map No. 14, dated July 24, 2000).

The MIS/DEIS states that according to the "Environmental Baseline Report" dated June, 1999, landscapes with the highest visual quality and character include Kapahulu Avenue between Kalakaua Avenue and Kuhio Avenue (MIS/DEIS @ 3-52). However, the MIS/DEIS curiously omits the Diamond Head Special District when referring to special view opportunities in special districts that have a "distinctly unique character due to cultural and historical context". Pursuant to the City's Land Use Ordinance, significant viewplanes surrounding Diamond Head and historic Kapiolani Park are protected within the Diamond Head Special District. However, the D-EIS proceeds to ignore the special district zoning designation of the Diamond Head area as a historic, cultural and scenic District.

Within this designated special district is situated the historic property of the Kapiolani Park Trust, on which a transit stop in planned adjacent to the Zoo parking lot. Curiously, this remains undefined in the MIS/DEIS, although a rapid transit station site is disclosed on photographic overviews distributed at the MIS/DEIS information meetings on October 2 and 5. Further, the MIS/DEIS discloses that the "area of potential effect" on historic resources is impacted by BRT station stops, transit centers, and new ramps where such facilities might be elevated.

The MIS/DEIS states: "Parklands: Use of the overflow parking lot at Aloha Stadium (relating to prior federal ownership of the land) would be coordinated with the Aloha Stadium Authority" (MIS/DEIS @ S-16). However, the D-EIS mentions nothing about the proposed transit stop at Kapiolani Park and the impact on the historic Kapiolani Park Trust lands, specifically the Zoo parking lot restricted solely for park use in Kapiolani Park under court order (see: S.P. No. 89-0015, Conclusions of Law and Order @ 12 and 13). The impact on the Zoo parking lot and surrounding area as proposed to service a rapid transit stop is not addressed in the MIS/DEIS.

Also of significant absence in the MIS/DEIS is the fact that Kapiolani Park was listed on the Hawaii State Register of Historic Places in 1992 and is eligible for the National Register, thus protected by federal historic preservation laws. The monkeypod trees within the Zoo parking lot on Kapahulu Avenue are an integral part of the historic landscape of Kapiolani Park, and living assets of the Kapiolani Park Trust Collectively, they are a significant landscape feature along Kapahulu Avenue, a portion of which is also within Kapiolani Park Trust lands. Yet, the MIS/DEIS discloses that the monkeypod trees at this location are planned to be removed, relocated or cut back for rapid transit purposes (figure 5.7-1B), and the MIS/DEIS is silent on the significant negative impact this may have on the irreplaceable historic landscape and viewplanes of Kapiolani Park.
Further, the MIS/DEIS suggests that there could be special paving at crosswalks, street lighting, banners. street furniture, and plantings along the entire corridor, which would "enforce the character of the area and sense of place." Kapiolani Park is a protected historic landscape, and the Zoo parking lot fronting Kapahulu Avenue is resplendent with majestic Monkeypod trees. To add a cluttered carnival of banners, street furniture and decorative paving would compromise the historic character and integrity of the historic landscape along Kapahulu Avenue, and annihilate Kapiolani Park's enduring historic sense of place.

In addition, the MIS/DEIS states that the embedded electro-plate technology of the rapid transit system "requires substations every ½ mile (i.e., 24 buildings about the size of a small one-story house). They could be designed to blend in with the surrounding neighborhoods and placed underground where the water table permits, if necessary" (MIS/DEIS @ 5-38). Such a rapid transit electric substation is planned on Kapiolani Park Trust lands at the Zoo parking lot adjacent to a transit stop (see: Photographic overview #14, as distributed at the MIS/DEIS information meetings on October 2 and 5.) This would not appear to have the ability to meet the "visual compatibility" assessment for Kapiolani Park's important visual resource, as the brackish water table is only inches below the sandy sub-surface layer. Ironically, the MIS/DEIS claims that this "offers an opportunity to enhance the visual quality of the streetscape..." (MIS/DEIS @ 5-39), and completely ignores Assessment of Effect on this historic resource on table 5.10-1.

Nor would such a municipal utility facility as a power sub-station be in conformance with the Court's findings (see: SP No. 89-0015, City and County of Honolulu v. State Attorney General and Kapiolani Park Preservation Society). Notably, the Court order precludes use of Kapiolani Park Trust lands for municipal facilities, and provides for addition of adjacent lands to the Trust to compensate for ongoing municipal use of such lands for a pre-existing fire station, while continuing to retain such lands within the Trust.

At a City Council presentation and public hearing on the MIS/DEIS on October 5, a TransHawaiian transportation representative recommended converting Jefferson School to a BRT terminus. In response, the City Councilman for the district and Kapiolani Park Trustee interjected a suggestion for such use on only that portion of the school site which is currently open space. However, much of this contemplated portion of Jefferson School along Kapahulu Avenue is also within the historic Kapiolani Park Trust boundary (see: Monsarrat Survey Map dated 1883). Prior to this, at a

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Kapahulu community visioning group meeting on June 21, 2000, the same Kapiolani Park Trustee and City Councilman for the district suggested that the community "think large" and consider the Kapiolani Park Trust lands at the Zoo location and at Jefferson School as possible sites for a municipal parking lot and transit center location.

The significant impact of such suggestions, as well as the impact of the proposed transit stop on the Zoo parking lot set aside for park use only, and the impact on the surrounding community through which transit riders would commute to park at the Zoo parking lot, are not addressed in the MIS/DEIS. This supports the conclusion that the cumulative impact of the larger project has not been addressed, much less disclosed, in the MIS/DEIS.

There is mounting concern that the in-town tram system is planned to run along a separated traffic lane on the makai side of Kalakaua Avenue, further impacting ancient Hawaiian burials at this location, which is also neither mentioned nor addressed in the MIS/DEIS. The MIS/DEIS generally states, "Should archaeological resources be encountered during construction, work would stop immediately and the State Historic preservation Officer would be contacted" (MIS/DEIS @ S-16). However, the MIS/DEIS then specifically refers to potential disturbance on Middle Street and Kalia Road, but mysteriously does not mention Kalakaua Avenue (MIS/DEIS @ 5-66), where such disturbance has happened several times before in Waikiki, most recently when public works projects along Kalakaua Avenue unearthed and disturbed Hawaiian burials - causing great public outcry and controversy. An embedded electro-plate transit corridor along the same route will undoubtedly disturb several more *iwi kupuna*. Yet, the MIS/DEIS states further that, "An archaeological contingency procedure would be developed in the 'unlikely' event that 'unanticipated' resources are encountered during construction" (MIS/DEIS @ S-17).

The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town fixed and separated transit corridor loop around Waikiki, including along Kapahulu Avenue, a) that necessitates the construction of power substations and peripheral parking for its support within the Diamond Head Special District and/or within Kapiolani Park Trust lands as listed on the Hawaii State Register of Historic Places, and b) that is permanently embedded on the makai side of Kalakaua Avenue, impacting the one of Oahu's significant views, the Kalakaua Avenue/Waikiki Beach coastal viewplane, and disturbing ancient Hawaiian burials along the Kalakaua Avenue shoreline By such omissions as the above, and with the cumulative impacts of such facilities on the Waikiki area and surrounding communities and parklands remaining undisclosed, the MIS/DEIS is rendered defective and deficient.

VIEWPLANES and ESTABLISHED LANDSCAPES

There is serious concern that the in-town tram system is planned to run along a separated traffic lane on the makai side of Kalakaua Avenue, impacting the Kalakaua Avenue/Waikiki Beach coastal viewplane, one of Oahu's significant views. The MIS/DEIS states that according to the "Environmental Baseline Report" dated June, 1999, landscapes with the highest visual quality and character include the portions of Kalakaua Avenue along Waikiki Beach. In addition, the Kalakaua Avenue/Waikiki Beach coastal viewplane is listed as one of Oahu's significant views as identified on in the City's "Coastal View Study" of 1987. (MIS/DEIS @ 3-52). A high-capacity dual tram every four minutes and associated transit stops dedicated to the makai lane of Kalakaua Avenue would adversely impact the shoreline viewplane and "Hawaiian Sense of Place" along the length of Kuhio Beach and in front of the historic Moana Hotel. This would result in a misplaced and ultimately destructive endeavor, demonstrating that the "Hawaiian sense of place" continues to elude City planners.

Further, there is significant community concern that a) the MIS/DEIS states that "The majority of trees potentially affected are the monkeypods along Kapiolani Boulevard from Pensacola Street to Isenberg Street" where they will be removed, relocated or cut back to make way for the transit corridor. b) that transit corridor exclusive median lanes will be constructed along the length of University Avenue, together with platforms and divisive curbs that bisect the main thoroughfare and divide the community and neighborhoods through which it runs, and which will necessitate the removal of the recently-planted Shower trees, and c) that historic monkeypod trees will be removed, replaced or cut back in the vicinity of Kapiolani Park (MIS/DEIS @ 5-56 and figure 5.7-1B). Yet, the MIS/DEIS is vague and unresponsive regarding the exact locations, and the size and value of these historic trees and landscapes.

There is also serious concern that the MIS/DEIS states that "some landscaping would be lost fronting the Convention Center on the makai side of Kapiolani Boulevard in order to widen the Kapiolani/Kalakaua intersection" to make way for the in-town tram system. With the recently-planted lush landscape screening removed, this prominent street frontage would then be left with a huge concrete facade which was intended to be concealed, softened and cooled by landscaping.

Thus, there is serious concern that the planned changes to the physical environment, including the removal of decades of beautificaton efforts that have generated established trees and landscaping, and the addition of fixed transit lanes bisecting and dividing neighborhoods, will contribute to a cumulative loss in the quality of life for the surrounding communities.

The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town separated high-capacity transit corridor a) along Kapiolani Boulevard, where monkeypods from Pensacola Street to Isenberg Street are slated to be removed, relocated or cut back to make way for the transit corridor, b) along University Avenue where a fixed two-way transit corridor is planned to be constructed in the street median, thus necessitating the removal of the recently-

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planted Shower trees, c) within the Kapiolani/Kalakaua intersection on the makai side of Kapiolani Boulevard where the recently-planted and costly landscaping fronting the Convention Center would be lost to make way for the in-town transit lanes, and d) within the Diamond Head Special District and Kapiolani Park Trust lands where historic monkeypod trees are slated to be removed, replaced or cut back to make way for the in-town fixed transit line and ancillary facilities.

CONCLUSION

Environmental Impact Statements are required for proposed publicly-funded projects when a finding of significant impact is made, and are required to address the cumulative impact of the larger project, as has been reaffirmed by the Hawaii State Supreme Court.

Conclusively, public comments, questions and concerns emanating from the community sector indicate that the MIS/DEIS is a) premature, as the City is without the capability to represent defined technology and subsequently specific costs thereof, b) segmented, by not disclosing the cumulative impact of the larger project as required by federal and state environmental impact statement regulations, and c) incomplete, by neglecting to address the types of transit contemplated to access certain locations, the linkage to and types of transit centers and facilities at other locations, and how the components of the proposed plan correlate with the existing Primary Urban Center Development Plan and its 1999 proposed revisions, and d) inadequate, by not addressing increased congestion caused by converting existing traffic lanes into separate transit corridors to accommodate fixed transit lanes, and the necessary mitigation thereof..

In light of the above, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes any high-capacity transit corridor, peripheral facilities and ancillary infrastructure that will adversely or intrusively impact Waikiki shoreline viewplanes, historic sites and landscapes, parklands, internal traffic patterns, visitor center support services, surrounding communities and neighborhoods, and the "Hawaiian Sense of Place". We question the rationale behind promoting an in-town fixed rapid transit to replace more convenient and flexible circulator systems, and thus advocate full reconsideration of in-town fixed transit corridors and determination in the future where there can be more efficient and flexible use of time-proven technology. Honolulu has a nationally-recognized bus system, and the City administration must continue to maintain and maximize this resource to its fullest potential, including but not limited to flexible in-town circulators; express-bus, zipper-lane, and alternative-energy upgrades; and ridership incentives.

In conclusion, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board rejects the proposed embedded transit system planned between Middle Street and Kapahulu Avenue, described in the MIS/DEIS as the in-town BRT Alternative, for the reasons stated and outlined above. Instead, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board strongly recommends the flexible, modifiable bus transit alternative, described in the MIS/DEIS as the Transportation System Management (TSM) Alternative, as the Preferred Alternative for the Primary Corridor

Transportation Project, and supports the best efforts of the City and County of Honolulu to expedite and fulfill the commitment to expand and maintain the Transportation System Management program to ensure that it is efficient, cost-effective and reliable.

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DIAMOND HEAD/KAPAHULU/ST. LOUIS HEIGHTS NEIGHBORHOOD BOARD NO. 5

• NEIGHBORHOOD COMMISSION • CITY HALL ROOM 400 • HONOLULU, HAWAII 96813

CITY COUNCIL TRANSPORTATION COMMITTEE MEETING

November 14, 2000

RESOLUTION 00-249

SELECTION OF A LOCALLY PREFERRED ALTERNATIVE FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

We are pleased to inform you that we strongly support continuation and full implementation of the flexible and modifiable Transportation Service Management (TSM) Alternative to serve the entire Primary Corridor, including the urban Honolulu segment between Middle Street and Kaimuki.

However, with respect to Bus Rapid Transit (BRT) Alternative, there appears to be sufficient reason to expect significant adverse in-town impacts on traffic patterns, business districts, neighborhoods, private transportation carriers, and surrounding communities from the magnitude of this proposed cumulative transportation project.

Thus, we find we can neither support nor recommend the proposed In-Town BRT Alternative for the purpose of the public decision-making process on this project.

Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following:

- lack of correlation to pending Primary Urban Center development plan revisions;
- absence of information and location of impacts on registered historic sites, landscapes, parklands, and ancient burial sites;
- incomplete and questionable community involvement and consensus in recommending specific components, facilities, and routes for the BRT Alternative;
- absence of traffic testing for cumulative traffic impacts;
- public and private circulator transportation, service and delivery operations and traffic impacts;

- major infrastructure and utility impacts;
- absence of defined and proven technology and associated cumulative capital costs and operations subsidies;
- absence of ancillary facilities descriptions, locations, linkages and impacts on surrounding communities;
- compromised present quality of life and "Hawaiian Sense of Place", e.g. destruction and/or adverse impact to scenic viewplanes, historic landscapes, and Hawaiian burials to provide for embedded rapid transit infrastructure, utilities and facilities;
- incomplete expansion and improvement of the present Transportation Service Management program to its fullest potential, including the hub-and-spoke circulator system, express and articulated vehicles, dedicated freeway "zipper" lanes, and public and private ridership incentives, prior to any consideration of an embedded rapid transit alternative.

The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes such a high-capacity transit corridor, peripheral facilities and ancillary infrastructure that will adversely or intrusively impact Waikiki shoreline viewplanes, historic sites and landscapes, parklands, internal traffic patterns, visitor center support services, non-subsidized private transportation carriers, surrounding communities and neighborhoods, and the "Hawaiian Sense of Place".

We question the rationale behind promoting in-town fixed rapid transit to replace more convenient and flexible circulator systems. Honolulu has a nationally-recognized bus system, and the City administration must continue to maintain and maximize this resource to its fullest potential, including but not limited to flexible in-town circulators; express-bus, zipper-lane, and alternative-energy upgrades; and ridership incentives.

In conclusion, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board rejects the proposed embedded transit system planned between Middle Street and Kapahulu Avenue. Instead, we strongly advocate the TSM Alternative, as the Preferred Alternative for the Primary Corridor Transportation Project, and support the best efforts of the City expedite and fulfill your commitment to expand and maintain the TSM program to ensure that it is efficient, cost-effective and reliable.

A copy of the Board's Resolution to this effect is provided for your review.

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DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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November 13, 2002

TPD11/00-05452R
TPD11/00-05591R

Ms. Karen Ah Mai, Chairperson
Diamond Head/Kapahulu/St. Louis Heights
Neighborhood Board No. 5
Neighborhood Commission
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Ms. Ah Mai:

Subject: Primary Corridor Transportation Project

This responds to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). We are responding to your October 26, 2000 testimony at the Transportation Committee meeting, your November 2, 2000 resolution supporting the TSM Alternative and opposing the In-Town BRT, November 6, 2000 letter, and your November 14, 2000 Resolution on Selection of a Locally Preferred Alternative.

1. *At a Special Meeting scheduled for November 2, the committee will be presenting the following concerns and questions to the full Board, with the recommendation to reject the In-Town BRT portion of the proposed plan.*

   Response: Comment noted. It states the commenter's preference for a Locally Preferred Alternative (LPA).

2. *Transportation planning is dependent on land use planning, yet the Primary Urban Center Development Plan revision has not been reviewed, approved, or adopted. Why is the transportation plan being placed ahead of the PUC Development Plan?*

   Response: Since there is no indication of when the City Council will adopt the updated Primary Urban Center Development Plan, the Primary Corridor Transportation Project environmental process is continuing. City Council adoption of the updated Primary Urban Center Development Plan is not needed to complete the environmental review process for the Primary Corridor Transportation Project. For your information, federal-aid transportation projects on Oahu, such as the Primary Corridor Transportation Project, are identified through a planning process coordinated by the Oahu Metropolitan Planning Organization. The most recent Oahu transportation plan, called the Transportation for Oahu Plan (TOP) 2025 (April 6, 2001), identifies the proposed project.

3. *Why is the transit corridor being proposed for Kapiolani Boulevard, along which are large, undeveloped parcels, when there are more people on King Street?*

   Response: Along with serving existing transit needs, one of the other project goals is to help shape growth in the corridor. Large, undeveloped parcels along Kapiolani Boulevard present opportunities to encourage transit-oriented development at these sites.

4. *In addition, the permanent BRT system proposed is planned to loop around Waikiki. Ironically, this displaces the local circulator with more frequent and convenient stops. This also jeopardizes the survival of local carriers who service Waikiki successfully and without subsidy, as disclosed in Appendix B of the 1999 Joint Waikiki Task Force Report.*

   Response: Today, public transit service is only provided on Kuhio Avenue (both directions). The BRT will provide high frequency service on Kalakaua and Kuhio Avenues, thus increasing the area directly served by public transit. Based on the analysis of the potential impacts on private transportation providers as discussed in Section 5.1.5 of the FEIS, the private transportation providers will not be significantly adversely affected by the Refined LPA since they serve different travel markets. Even with the BRT, private operators would still be needed to serve the tourist travel market.

   The BRT routings, stop locations and other features are designed to serve trips by Oahu residents when going to-and-from home, work, school, shopping and other purposes. It is not designed to serve the tourist market as are the private bus operations in Honolulu. Unlike the private sector buses, the BRT will not pick passengers up at their hotels and take them on various scenic tours. It will not take them to-and-from the Airport. It will not take them to-and-from their hotels and the Convention Center. It will not pick them up at the cruise ship terminal and carry them and their bags directly to their hotels. And unlike the private shuttles it is not designed to operate in a loop that only goes between the Waikiki hotels and the various tourist sites of interest.

   Some tourists may use BRT because it does serve some of the same destinations that the tourists want to go to. But the BRT serves these places primarily because they are also major employment sites or sites that attract local residents, such as shopping centers or restaurants. The tourists expected to use the public transit system with the BRT is forecast to be no greater proportionally than today (i.e., around six to eight percent of total daily boardings).

5. *Why would the City entertain the notion to intrusively impact internal traffic patterns and visitor center support services with a high-capacity transit corridor in Waikiki?*

   Response: The BRT is meant to complement the local bus service in Waikiki and elsewhere in the Primary Transportation Corridor by providing a faster more reliable service for riders by offering limited stop operations in bus priority lanes. Workers and residents in Waikiki are among those who would benefit most from the Refined LPA. Rather than being intrusive, the BRT Alternative has been designed to enhance and support the tourist-oriented urban character of Waikiki.

6. *The DEIS states that candidate technologies are not yet fully proven, so a decision on the type of transit technology need not be made at this point. If such a decision cannot be made, why is the City moving on a fast track towards approval of a $1 Billion System, including equipment replacement – all to be paid by the taxpayer.*

   Response: As described in FEIS Chapter 1, there is sufficient present travel demand to justify the Refined LPA now. Not only is the system justified by present needs, but the need for the benefits

of the system would become even more urgent as growth occurs. Therefore, as the executive agency charged with providing and maintaining adequate transportation infrastructure, it would be imprudent to not pursue implementing this project

Transit technology is ever changing. However, DTS cannot wait for the perfect system. Technology options for the In-Town BRT are not yet considered "proven in regular revenue service". In the final design phase of project development, DTS would define the service-proven requirements for this project and then assess the probability of each technology meeting the requirements.

DTS would establish its own safety certification process following guidelines and standards that have been found acceptable for similar transit systems and equipment. This safety certification process would comply with a System Safety Program Plan (SSPP) written specifically for each technology. The SSPP would include independent reviews of the designs, manufacturing processes, installation procedures and specific application for Honolulu; hazard analyses; tests; and also include reviews of safety analyses carried out by or for the supplier/manufacturer.

Certification of a technology would involve two aspects: certification of the "product" and certification of the "application". Certification of the product would address basic design, operation, maintenance, and interface with associated activities. Certification of the application would address specific design and implementation of the technology in Honolulu, including operations and maintenance.

The City would also establish an evaluation program used to select the final technology. The evaluation program is expected to comprise the following steps:

- Define the technology performance requirements for the In-Town BRT system.
- Notify suppliers of candidate technologies of the City's desire to select a final technology, the proposed technical requirements, and the time frame for selection.
- Meet with interested suppliers, both in a group and individually, to discuss the details of the City's requirements and time frame.
- Perform an independent evaluation of the development status of candidate technologies.
- Conduct technology demonstrations on Oahu.
- Recommend final technology.

The current schedule, which does not require selecting the final technology until spring 2008 allows manufacturers of candidate technologies to further develop and define their products, and for the City to gain further understanding of these technologies and the impacts the introduction of one of the technologies would have in the proposed application in Honolulu.

The City has identified potential risks of selecting and implementing an emerging technology for the In-Town BRT. The City has also developed strategies for minimizing these risks. A few of the ways the City could help minimize risks are:

- Provide the incentive of Honolulu's project in an effort to induce product development by manufacturers. This should include the promotion of the In-Town BRT project to the bus industry, including details of the performance and technical requirements. Working with the industry would allow the City to monitor and influence the development of the candidate technologies and have a greater understanding of each technology.
- Monitor/Participate in current Demonstration Programs to gain a greater knowledge of how other transit agencies are implementing emerging technologies and how lessons learned can be applied to Honolulu's program.

- Develop contractual requirements that address what happens if the selected technology does not perform as specified.
- Work with industry, regulators, and local public officials to ensure any necessary code revisions or exemptions are in place.

Even without finalizing the technology for the In-Town BRT, the FEIS is still valid since the impacts and mitigation measures identified are for the technology with the greatest level of impacts in each environmental discipline. For example, the embedded plate system would have greater land use impacts than hybrid technology, because embedded plate systems require electric power substations and more roadway reconstruction.

7. *What services and capital improvements will be necessary to sacrifice so this system can be paid for without raising taxes?*

   Response: One of the assumptions made in developing the cash flow plan in the FEIS is that the City will need to phase in the project as money is available from different federal and local sources. The cash flow plan made sure that there was significant capacity for other large projects through general bonds. In the FEIS, the amount of GO bonds needed on an annual basis was reduced, in part to reduce the impact of the BRT project on other major capital needs. None of the existing projects would be deferred, since the financing for these has already been accounted for. These are choices that would need to be made by City officials, just as they make financial decisions for any large capital project.

8. *No physical traffic testing has been conducted to demonstrate the impact of the proposed separated lanes for the In-Town BRT on Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenues, or to show that lane dedication will result in less traffic congestion. In fact, current conditions demonstrate that when lanes are blocked or closed on main thoroughfares, traffic migrates into peripheral areas and neighborhoods to circumvent the congestion.*

   Response: A test of closing a lane is not a test of what will happen with the BRT, it is only a test of what happens when a lane is closed which is something everyone knows the consequence of from when lanes are temporarily closed during utility construction.

   As is pointed out in Chapter 4 of the FEIS, over time there will be enough people diverted from autos to transit to offset the impact of converting lanes for priority use by buses. This diversion from autos will only happen once it is clear that the BRT installation is a permanent improvement, not part of some test.

   What is proposed with the first In-Town BRT branch between Iwilei and Waikiki will be a good test of the ability of BRT to attract new riders and the impacts of converting lanes in selected locations.

9. *There are no physical traffic tests in the Kapiolani/Kalakaua corridor to show that traffic congestion will not increase exponentially with the re-allocation of existing lanes to dedicated high-occupancy lanes, yet this plan is proposed to be permanently fixed within our main traffic arteries.*

   Response: See response to Comment #8 and traffic analyses in this FEIS, Chapter 4.

10. *Peripheral parking locations to support the proposed In-Town BRT system from Kapiolani to Kapahulu are undisclosed in the DEIS. What impact will this have on the surrounding communities?*

Response: New parking locations that complement the In-Town BRT will be located at the Middle Street Transit Center and the Iwilei Transit Center. These are being developed as independent projects from the Refined LPA.

11. *The BRT Waikiki terminus is proposed for Kapahulu Avenue, yet the only available parking is at the Zoo parking lot which is on Trust land and specific to park use. However, the 1999 Joint Waikiki Task Force Report recommends such facilities be placed at the Kapahulu Library or the base yard at the Ala Wai golf course.*

Response: The BRT would not "terminate" anywhere in Waikiki. The BRT route consists of a one-way loop using Kalakaua, Kapahulu and Kuhio Avenues. It is not intended that the zoo parking lot be used as parking for BRT patrons. The project does not propose any sites for peripheral parking in Waikiki. Therefore, there is no need to identify "alternate" sites.

12. *A "Kaimuki Transit Center" is listed with the Iwilei Transit Center and the Middle Street Transit Center in the DEIS, which states that "connections...to the regional and in-town BRT systems would occur at transit centers." However, the DEIS neither describes nor illustrates any linkage to the Kaimuki Transit Center which is now known to be planned for Waialae Avenue.*

Response: The Kaimuki Transfer Point is moving forward as a separate project and a separate environmental analysis will be conducted.

13. *In addition, the proposed Primary Urban Center Development Plan revision issued in 1999 refers to "high capacity transit corridors" proposed for Kapahulu Avenue (Ala Wai golf course/park), Date Street, and Waialae Avenue. The PUC Development Plan revision also proposes "urban villages" and "village inns" on consolidated lots along these routes. Such consolidated development accessed by high capacity transit corridors also is proposed for McCully-Moiliili along King Street, Date Street, the Sheridan area, and for Bingham Tract. Yet, all of the above linkages are virtually undisclosed and remain unaddressed in the DEIS.*

Response: As described in Section 5.1.3 of the FEIS, "Consistency with Land Use Plans", the Refined LPA was evaluated as being "highly consistent" with the policies and guidelines of the Primary Urban Center Development Plan updates. DTS will continue coordinating with the DPP throughout project development to insure that the project remains consistent with the plan updates. . The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990..

14. *The DEIS is deficient by neglecting to disclose that Kapiolani Park is within the Diamond Head Special District, is listed on the Hawaii State Register of Historic Places, and is governed under the protective provisions of a public charitable Trust which precludes construction of municipal facilities and any other encumbrance of Trust lands. We have learned through the DEIS and at a series of public meetings that a total of 24 power substations for the proposed system will be placed every half mile. These are described as being the size of a small house, and one is planned to be placed in Kapiolani Park, as shown on Transportation Map 14 dated July 24.*

Response: As a result of comments received regarding the substation locations and further project refinements since the MIS/DEIS was released, the substation originally shown in the Kapiolani Park area has been relocated to a location on Kuhio Avenue. (See FEIS Appendix B.) It should be noted that the substations would only be constructed if the embedded plate technology is selected.

15. *The DEIS states that "some landscaping would be lost fronting the Convention Center on the makai side of Kapiolani Boulevard in order to widen the Kapiolani/Kalakaua intersection to make way for the BRT. With the recently-planted lush landscape screening removed, would we then be left with a huge concrete facade which was intended to be concealed by landscaping?*

Response: Minimal landscaping would need to be removed. Whatever was removed would be replaced with similar types of trees in the same general location.

16. *The BRT is planned to run along a separated traffic lane on the makai side of Kalakaua Avenue. The Kalakaua Avenue/Waikiki Beach coastal viewplane is listed as one of Oahu's significant views identified in the City's Coastal View Study". Thus the proposed electro-plate tram corridor appears to be misplaced and counter to the "Hawaiian Sense of Place" that continues to elude City planners.*

Response: The physical improvements that would be visible along Kalakaua Avenue would be minimal, consisting of a single transit station along the street on the makai side. It is felt that the station can contribute to the amenities that are presently there. The station is not thought of as a wall or building and would be designed to be airy and open. The transit station would be designed as an open, welcoming structure, well landscaped and integrated into the existing promenade.

17. *The BRT is planned to run along a separated traffic lane on the makai side of Kalakaua Avenue. The Kalakaua Avenue/Waikiki Beach coastal viewplane is listed as one of Oahu's significant views identified in the City's Coastal View Study". Thus the proposed electro-plate tram corridor appears to be misplaced and counter to the "Hawaiian Sense of Place" that continues to elude City planners.*

Response: See response to comment #16.

18. *Kalakaua Avenue is also the location of ancient Hawaiian burials. Curiously, this is neither mentioned nor addressed in the DEIS, which refers only to burial sites along Middle Street and Kalia Road.*

Response: Section 3.10.2 of the MIS/DEIS under "Archaeological Resources" states, "the sandy soil conditions of Fort DeRussy and Kalakaua Avenue make the discovery of burials in these locations not unexpected." The FEIS includes the archaeological survey results.

19. *Why would the City entertain the notion to intrusively impact internal traffic patterns and visitor center support services with a high-capacity transit corridor in Waikiki? Would not this transit experiment be better suited and better placed in the more open areas of Kapolei and Central Oahu -- where there could be more efficient use of time-proven technology and more time saved for more people over longer distances to the downtown destination?*

Response: The Refined LPA includes a Regional BRT component and an In-Town BRT component. The Regional BRT would serve Kapolei and Central Oahu. The FEIS Chapter 4 presents the traffic and transportation effects resulting from implementing the Refined LPA. The Refined LPA would not affect visitor center support services.

20. *BE IT RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board requests that further consideration of the MIS/DEIS be delayed until the Primary Urban Center Development Plan revision has been publicly reviewed, approved and adopted -- including any conceptual "urban villages" and "village inns" proposed to be developed on consolidated lots and accessed by "high capacity transit corridors" along Waialae Avenue, Date Street, and Kapahulu Avenue (where the Ala Wai Golf Course is now being planned to become a major regional park attraction), as well as in McCully-Moiliili along Date Street, King Street, the Sheridan area, and within Bingham Tract -- since transportation planning is integrally related to land use planning; and*

Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. . The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

21. *BE IT FURTHER RESOLVED that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board requests that further consideration of the MIS/DEIS be delayed until all segments of the larger project are fully disclosed and described in the MIS/DEIS, including peripheral parking locations contiguous to Waikiki and linkages to outlying transit centers at undisclosed locations, such as the "Keimuki Transit Center" mentioned in the MIS/DEIS; and*

Response: The FEIS fully discloses the benefits and effects of implementing the Refined LPA. There are no peripheral parking locations or transit centers planned as part of the PCTP beyond those identified as park-and-rides, transit centers or transfer points in the FEIS.

22. *BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes closure of vital vehicular traffic lanes and re-allocation of such to any separated high-occupancy vehicle transit lanes from Ward Avenue to Kapahulu Avenue until physical traffic testing is conducted over a period of several months, including along Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenues, to demonstrate successful mitigation of the expected exponential traffic overflow impact on surrounding communities and neighborhoods; and*

Response: See response to comment #8.

23. *BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town fixed and separated transit corridor loop around Waikiki, including along Kapahulu Avenue, that disrupts the transport and delivery of goods and services, that displaces local circulator carriers who provide frequent and convenient stops, that jeopardizes the survival of such carriers who service Waikiki successfully and without subsidy, and that impacts transport and delivery routes for goods and services that are Waikiki's lifeline to survival as a major visitor destination; and*

Response: Today, public transit service is only provided on Kuhio Avenue (both directions). The BRT will provide high frequency service on Kalakaua and Kuhio Avenues, thus increasing the area directly served by public transit. Based on the analysis of the potential impacts on private transportation providers as discussed in Section 5.1.5 of the FEIS, the private transportation providers will not be significantly adversely affected by the Refined LPA since they serve different travel markets. Even with the BRT, private operators will still be needed to serve the tourist travel market.

The BRT routings, stop locations and other features are designed to serve trips by Oahu residents when going to-and-from home, work, school, shopping and other purposes. It is not designed to serve the tourist market as are the private bus operations in Honolulu. Unlike the private sector buses, the BRT will not pick passengers up at their hotels and take them on various scenic tours. It will not take them to-and-from the Airport. It will not take them to-and-from their hotels and the Convention Center. It will not pick them up at the cruise ship terminal and carry them and their bags directly to their hotels. And unlike the private shuttles it is not designed to operate in a loop that only goes between the Waikiki hotels and the various tourist sites of interest.

Some tourists may use BRT because it does serve some of the same destinations that the tourists want to go to. But the BRT serves these places because they are also major employment sites or sites that attract local residents, such as shopping centers or restaurants. The tourists expected to use the public transit system with the BRT is forecast to be no greater proportionally than today (i.e., less than 10-15 percent of total daily boardings).

The BRT is meant to complement the local bus service in Waikiki and elsewhere in the Primary Transportation Corridor by providing a faster more reliable service for riders by offering limited stop operations in bus priority lanes. Workers and residents in Waikiki are among those who would benefit most from the Refined LPA. Rather than being intrusive, the BRT System has been designed to enhance and support the tourist-oriented urban character of Waikiki. There will be a 50 percent reduction in the number of buses on Kuhio Avenue and a 25 percent reduction of buses overall in Waikiki with the Refined LPA. This will make for a more pedestrian friendly environment not a more intrusive one.

As far as the affects to private tour vehicles and delivery vehicles, the Kalakaua/Kuhio loop maintains auto access as well as passenger and freight loading zones on Kalakaua and Kuhio Avenues. Private buses and trolleys will be able to share the semi-exclusive lanes in Waikiki with the BRT and local buses. This will be a substantial benefit for them. Freight carriers will be able to use the BRT shared lanes during legal delivery hours on Kalakaua Avenue (10 P.M. to 9 A.M.) and Kuhio Avenue (10 P.M. to 7:30 A.M.) so that the BRT would simply pass around a stopped loading truck by using the adjacent traffic lane. The impacts of the Refined LPA on traffic congestion in Waikiki are shown in Tables 4.3-11 to 4.3-13 of the FEIS.

24. *BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town fixed and separated transit corridor loop around Waikiki, including along Kapahulu Avenue, a) that necessitates the construction of power substations and peripheral parking for its support within the Diamond Head Special District and/or within Kapiolani Park Trust lands as listed on the Hawaii State Register of Historic Places, and b) that is permanently embedded on the makai side of Kalakaua Avenue, impacting the one of Oahu's significant views, the Kalakaua Avenue/Waikiki Beach coastal viewplane, and disturbing ancient Hawaiian burials along the Kalakaua Avenue shoreline; and*

Response: The proposed In-Town BRT alignment in Waikiki would not traverse Kapiolani Park, including Honolulu Zoo, or the Diamond Head Special District. Although the easternmost section of the alignment would be along Kapahulu Avenue, which is just outside the park and special district, it would be consistent with the Special District's land use objectives. In addition, as a result of the comments received regarding traction power substation locations and further project refinements since the MIS/DEIS was distributed, the traction power supply station originally shown in the Kapiolani Park area has been relocated to a site along Kuhio Avenue. It should also be noted that substations would only be constructed if the embedded plate technology is selected.

Regarding coastal view planes, the system's embedded plate technology would not affect the coastal view planes since it is flush with the surface of the street.

25. *BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town fixed end seperated transit corridor a) along Kapiolani Boulevard where the MIS/DEIS states that, "The majority of trees potentially affected are the monkeypods along Kapiolani Boulevard from Pensacola Street to Isenberg Street" where they will be removed, relocated or cut back to make way for the transit corridor, b) along University Avenue where a fixed two-way transit corridor is planned to be constructed in the street median, thus necessitating the removal of the recently-planted Shower trees, c) within the Kapiolani/Kalakaua intersection on the makai side of Kapiolani Boulevard where the MIS/DEIS states that the recently-planted costly landscaping fronting the Convention Center would be lost to make way for the BRT, and d) within the Diamond Head Special District and Kapiolani Park Trust lands where the MIS/DEIS indicates historic monkeypod trees will be removed, replaced or cut back; and*

Response: Project planning has involved careful consideration of the trees along the In-Town BRT alignment that may be adversely affected. Where possible, project designs have attempted to avoid trees. However, in some areas, namely on portions of Dillingham Boulevard, Kapiolani Boulevard, University Avenue, Saratoga Road, and Kalia Road in Waikiki, some trees will need to be set back slightly, relocated or removed and replaced to allow for necessary road widening. Trees that will be moved back from the existing curb or relocated will be pruned for replanting. Their canopies are expected to grow back within one year, with full recovery in three to five years. In the event that some larger trees cannot be successfully moved back, they will be replaced with smaller trees of the same species.

26. *BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board requests delay of an in-town separated high-occupancy vehicle lanes along Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenues until a) candidate technologies for the proposed in-town system are fully proven and a decision on the type of transit technology can be made, b) advancing state-of-the-art technology can ensure a reliable, economic and efficient transportation system with more flexible operations, and c) until the City and County of Honolulu can demonstrate that the cost to develop such a system will ensure that there will be neither an increase in local taxes nor sacrificing of City services, repairs, operations, improvements, or any other necessary day-to-day functions of the City, no matter whether they are budgeted and funded under capital improvements or under operations; and*

Response: As described in FEIS Chapter 1, there is sufficient present travel demand to justify the Refined LPA now. Not only is the system justified by present needs, but the need for the benefits of the system would become even more urgent as growth occurs. Therefore, as the executive agency charged with providing and maintaining adequate transportation infrastructure, it would be imprudent to not pursue implementing this project.

Transit technology is ever changing. However, DTS cannot wait for the perfect system. Some of the technology options for the In-Town BRT are not yet considered "proven in regular revenue service". The City has elected to proceed with hybrid-electric buses during the initial stage of the In-Town BRT operations through 2011. In the subsequent phase of project development, DTS will define the service-proven requirements that each technology manufacturer will need to meet in order to be selected. DTS will also establish its own safety certification process following guidelines and standards that have been found acceptable for similar transit systems and equipment. This safety certification process will comply with a System Safety Program Plan (SSPP) written specifically for each technology. The SSPP is expected to include independent reviews of the designs, manufacturing processes, installation procedures and specific application for Honolulu; hazard analyses; tests; and also include reviews of safety analyses carried out by or for the supplier/manufacturer.

Certification of a technology will involve two aspects: certification of the "product" and certification of the "application". Certification of the product would address basic design, operation, maintenance, and interface with associated activities. Certification of the application would address specific design and implementation of the technology in Honolulu, including operations and maintenance.

The current schedule, which does not require selecting the final technology until 2008 allows manufacturers of candidate technologies to further develop and refine their products, and for the City to gain further understanding of these technologies and the impacts the introduction of one of the technologies would have in the proposed application in Honolulu.

The proposed financing plan will not increase local taxes or sacrifice existing City services, repairs, operations or improvements or any other day to day functions of the City.

27. *BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes any high-capacity transit corridor, peripheral facilities and ancillary infrastructure that will adversely or intrusively impact Waikiki shoreline viewplanes, historic sites and landscapes, parklands, internal traffic patterns, visitor center support services, surrounding communities and neighborhoods, and the "Hawaiian Sense of Place"; and*

Response: The Refined LPA will not affect viewplanes or visitor center support services. Transit stations and substations will be designed collaboratively with the surrounding communities. Stations can be open and contextual; substations can be placed and designed so that they are unobtrusive, and integrated with the surrounding context. Community, neighborhood, historic, parklands, and traffic effects are addressed in the FEIS.

28. *BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board advocates full reconsideration of planning high-capacity transit corridors from Ward Avenue to Kapahulu Avenue and determination in the future where there could be more efficient and flexible use of time-proven technology with more time saved for more people over longer distances to the downtown destination; and*

Response: Alternatives are addressed in FEIS, Chapter 2. A full consideration of options was performed. Two candidate technologies are being considered: the Embedded Plate Technology (EPT) and the Hybrid-Electric Propulsion System. Both are state-of-the-art technologies. Although the EPT technology is currently not proven in revenue service, a decision on the final

technology does not need to be made until 2008. In the interim hybrid-electric buses will be deployed. The final technology chosen will meet the City's certification, and constitute a reliable, economic, and efficient transportation system with flexible operations.

See response to comment #26.

29. *BE IT FURTHER RESOLVED, that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board rejects the "Bus Rapid Transit" (BRT) Alternative, a fixed grade-level separated transit lane system proposed for the area inclusively between Middle Street and Kapahulu Avenue, and specifically along Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue, and Kuhio Avenue, for the reasons stated and outlined above; and*

Response: Comment noted. It is a statement of opinion.

30. *BE IT FURTHER RESOLVED that the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board strongly recommends the Transportation System Management (TSM) Alternative, a flexible and modifiable bus transit system, as the Preferred Alternative for the Primary Corridor Transportation Project, and supports the best efforts of the City and County of Honolulu to fulfill the commitment to expand and upgrade Honolulu's present bus transportation to it (sic) fullest potential and to ensure that is efficient, cost-effective and reliable;...*

Response: Comment noted. It states the commenter's preference for a LPA.

31. *We are pleased to inform you that we strongly support continuation and full implementation of the flexible and modifiable Transportation Service Management (TSM) Alternative to serve the entire Primary Corridor, including the urban Honolulu segment between Middle Street and Kaimuki.*

Response: Comment noted. It states the commenter's preference for an LPA.

32. *However, with respect to Bus Rapid Transit (BRT) Alternative, there appears to be sufficient reason to expect significant adverse In-Town impacts from the magnitude of this proposed cumulative transportation project on traffic patterns, business districts, neighborhoods, private transportation carriers, and surrounding communities.*

Response: DTS has been and will continue to work with the communities in the corridor to minimize and mitigate potential impacts of the project. The FEIS Chapters 4 and 5 disclose the benefits and impacts associated with implementing the Refined LPA. These chapters include proposed mitigation measures.

33. *Thus, we find we can neither support nor recommend the proposed In-Town BRT Alternative for the purpose of the public decision-making process on this project. For the purpose of this response, you will find that our concerns, questions and comments focus on the proposed BRT Alternative.*

Response: Comment noted. It states the commenter's preferences.

34. *Lack of correlation to pending Primary Urban Center development plan revisions.*

Response: See response to comment #20.

35. *Absence of information and location of impacts on registered historic sites, landscapes, parklands, and ancient burial sites.*

Response: Historic properties (historic and archaeological sites), viewplanes (landscapes) and parklands at or near the project area are identified and impacts to these resources discussed in Chapters 3 and 5 of the FEIS, respectively.

36. *Incomplete and questionable community involvement and consensus in recommending specific components, facilities, and routes for the BRT Alternative.*

Response: The Primary Corridor Transportation Project (PCTP) is the result of extensive public involvement. Public involvement began in 1998, at the very beginning of the planning process, and continues today. Input from the public was critical in developing and evaluating alternative transportation solutions. The development and refinement of the three alternatives discussed in the MIS/DEIS Chapter 2 was the result of public input.

In addition to four rounds of Oahu Trans 2K public workshops attended by a total of 1,250 individuals, meetings were held with more than 100 governmental agencies, elected officials, businesses, and business, community and civic organizations. The public also had the opportunity to provide input on the various alternatives at a series of four City Council Transportation Committee Meetings prior to selection of the Locally Preferred Alternative (LPA). The City Council selected the Locally Preferred Alternative (LPA) on November 29, 2000.

The public was given an opportunity to comment on the Environmental Impact Statement Preparation Notice (EISPN) and the Notice of Intent to Prepare an EIS (NOI).

The public provided comments on the MIS/DEIS from September 8 to November 30, 2000. These comments have now been addressed and the FEIS will be broadly announced.

After the LPA was selected, the DTS continued public involvement activities by forming six Working Groups in geographic sub areas along the primary transportation corridor to further refine the BRT alignment and design features.

Even after the NEPA process is concluded and the Record of Decision (ROD) has been issued, public involvement will continue in many areas, such as design and construction of transit centers, transit stops, joint development, streetscapes, landscaping, street tree master plan, substation location and design studies, aesthetic design of vehicles, ITS and particulars of the ticketing system.

37. *Absence of traffic testing for cumulative traffic impacts.*

Response: See response to comment #22.

38. *Public and private circulator transportation, service and delivery operations and traffic impacts.*

Response: See response to comment #23.

39. *Major infrastructure and utility impacts.*

Response: In Waikiki the BRT will be utilizing existing roadways and there will be no major infrastructure or utility impacts except for temporary impacts during construction.

40. *Absence of defined and proven technology and associated cumulative capital costs and operation subsidies.*

Response: See response to comment #26.

41. *Absence of ancillary facilities descriptions, locations, linkages and impacts on surrounding communities.*

Response: The FEIS includes information such as descriptions, locations, linkages and impacts of ancillary facilities such as transit centers and traction power supply stations in Chapters 2, 3, 4, and 5.

42. *Compromised present quality of life and "Hawaiian Sense of Place", e.g. destruction and/or adverse impact to scenic viewplanes and landscapes to provide for embedded rapid transit infrastructure, utilities and facilities.*

Response: The Refined LPA will not negatively affect viewplanes, landscapes or compromise the quality of life and "Hawaiian Sense of Place". Transit stations and substations will be designed collaboratively with the surrounding communities. Stations can be open and contextual; the substations can be placed and designed so that it is unobtrusive, and integrated with the surrounding context.

43. *Incomplete expansion and improvement of the present Transportation Service Management program to its fullest potential, including the hub-and-spoke circulator system, express and articulated vehicles, dedicated freeway "zipper" lanes, and public and private ridership incentives, prior to consideration of an embedded rapid transit alternative.*

Response: The Refined LPA described in the MIS/DEIS and FEIS does indeed include implementing a hub-and-spoke bus network including circulator routes, use of express and limited stop services, articulated vehicles, use of the existing dedicated "zipper" lane, and extension of this lane. The Refined LPA also includes Transportation Demand Management (TDM) measures to reduce or shift travel times of private automobiles.

44. *Therefore, based on the information provided for the purpose of the public decision-making process on this project, by strong consensus we have elected to reject the In-Town BRT Alternative.*

Response: Comment noted. It states the commenter's preference for a LPA.

45. *A significant point that has been repeatedly stated by representatives of the interested and affected community is that the proposed in-town transit plan is being quickly placed ahead of the 1999 Primary Urban Center Development Plan revision, even though transportation planning decisions depend upon existing land uses and land use planning in the urbanized Honolulu area. Although some may emphasize that subsidized rapid transit drives development, thus benefiting private investors and landowners at the expense of the Honolulu taxpayer, established land uses demand that transportation planning must follow adopted development plan guidelines.*

Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

46. *The proposed Development Plan draft revision also promoted the concept of "high capacity transit corridors" on Waialae Avenue, Date Street, and Kapahulu Avenue, where the Ala Wai Golf Course is now being envisioned by the State administration to become a major regional park attraction, and "urban villages" and "village inns" to be developed on consolidated lots along these routes, - with such consolidated development accessed by high capacity transit corridors also proposed for the McCully-Moiliili area along King Street and Date Street, the Sheridan area, and Bingham Tract. Yet, all of the above linkages are virtually undisclosed and remain unaddressed in the MIS/DEIS, which specifically refers to "Transit Villages of the Twenty-First Century" as a resource document (MIS/DEIS @ 5-6). Therefore, it is highly evident that the MIS/DEIS is incomplete even in draft form, and it is of overriding concern that the cumulative impact of the Larger Project remains undisclosed.*

Response: Many of the specifics of the 1999 Draft of the PUC DP relevant to the proposed project were not provided in the MIS/DEIS because the 1999 Draft was not adopted by the City Council, and therefore, was not the official plan. The 1990 version was and still is the official PUC DP. For your information, the Department of Planning and Permitting released another Draft PUC DP in May 2002, but as of October 2002, it has not yet been adopted by the City Council. The May 2002 Draft does not mention "high capacity transit corridors" on Waialae Avenue, Date Street, and Kapahulu Avenue. Instead, it states, "Identify and stimulate transit-oriented development on potential infill and redevelopment properties within the Bus Rapid Transit (BRT) corridor." Therefore, any implicit concern contained in this comment may no longer be an issue. Cumulative impacts are discussed in Section 5.13 of the FEIS.

47. *In addition, there is also justified concern about the undisclosed linkage to an undefined "Kalmuki Transit Center", as listed with the Iwilei Transit Center and the Middle Street Transit Center in the MIS/DEIS (figure 2.5-1B @ 2-39) which states that "connections ... to the regional and in-town BRT systems would occur at transit centers" and "enhanced local circulation and access to the BRT systems..." and "intermodal access (e.g., automobile, pedestrian, bicycle) and intermodal access (e.g., connections between feeder and line haul transit routes) to the regional and in-town BRT systems would occur at transit centers and park and ride lots" (MIS/DEIS @ 2-18 and 2-22). Further, the DEIS describes transit centers as having certain characteristics, such as passenger shelters, retail and public facilities, and street furniture, ornamental lights and landscaping (MIS/DEIS @ 5-40). However, the MIS/DEIS neither describes any location nor illustrates any linkage to the "Kalmuki Transit Center," which is also now represented at public meetings to be planned as a "neighborhood bus stop" adjacent to a school on Waialae Avenue. However, because this proposed facility it is charted in the MIS/DEIS as a Transit Center at an undisclosed location in Kalmuki, but such mention the MIS/DEIS might also be authorizing such a development at other hub sites on Waialae Avenue, such as Market City where Kapiolani Boulevard, Kapahulu Avenue and Waialae Avenue intersect.*

Response: The FEIS clarifies that the smaller on-street transfer points such as proposed for Kaimuki are modest in scope and would not involve any major new construction. Their primary function would be to allow for the convenient transfer between circulator routes and other bus routes that connect that community with other communities. The proposed Kaimuki Transfer Point would be on Koko Head Avenue just makai of Waialae Avenue.

48. *Of equal concern is the curious absence of peripheral parking locations for Waikiki hotel and shop employees as briefly mentioned in the MIS/DEIS and as independently recommended in the Joint Waikiki Task Force [JWTF] report of December, 1999, and the impact this will have on surrounding communities. However, the MIS/DEIS does point out that it has been seen in other cities that most land use impacts are generally concentrated within 1/4 mile of a transit stop (MIS/DEIS @ 5-10).*

Response: There are no parking locations planned as part of the Refined LPA beyond those identified as park-and-rides or transit centers in this FEIS. Waikiki employees could use any of the numerous park-and-ride facilities located throughout the island.

49. *As the location(s) of Waikiki peripheral parking facilities servicing the Waikiki segment of the proposed fixed transit system, and the impact of access to them through surrounding communities are not addressed in the MIS/DEIS, we emphasize that this should be accomplished before the MIS/DEIS is given further consideration.*

Response: See response to comment #48.

50. *Further, City officials claim the components of the MIS/DEIS have been chosen and crafted by the community. However, in light of community concerns and questions expressed at the recent public meetings on the MIS/DEIS, this appears to be somewhat of a misrepresentation. In fact, on November 2, the McCully-Moiliili community board announced, "The proposed dedicated fixed tram routes through McCully-Moiliili, as communicated by the City administration via the Department of Transportation Services as the preferred routes voiced by McCully-Moiliili residents during the Trans 2K community meetings," were never supported by participants from our community. The same can be said for the Diamond-Head Kapahulu community.*

Response: It is not DTS's intent to misquote anyone. We are unable to verify this misquote, based on the information provided in the comment.

51. *The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board therefore requests that any consideration of in-town separated transit lanes be deferred until a) the Primary Urban Center Development Plan revision has been publicly reviewed, approved, and adopted; and b) until all segments of the larger project are fully disclosed and described in the MIS/DEIS, including peripheral parking locations contiguous to Waikiki and linkages to outlying transit centers at undisclosed locations, such as, but not limited to, the "Kaimuki Transit Center" briefly referenced in the MIS/DEIS.*

Response: See responses to comments #45, #47, #48 and #49.

52. *The MIS/DEIS is deficient in its analysis of alternative transportation technologies, confirms that candidate technologies for the proposed in-town system are not yet fully proven, and admits that a decision on the type of transit technology cannot be made at this point. Yet, the City is moving on a fast track towards approval of a $1 billion system at estimated base cost, including future equipment replacement.*

Response: See response to comment #26.

53. *Further, the MIS/DEIS ignores that state-of-the-art technological advances will make today's plans obsolete, where such a permanently-fixed system as the one proposed may indeed be outdated by more flexible, cost-effective alternative energy systems before the proposed system can be completed.*

Response: A decision on the final technology for the In-Town BRT will not be made until 2008. At that time the technology assessment will involve working with suppliers and researchers to determine the state-of-the-art technology that will meet the long-term needs of the City. The Refined LPA incorporates anticipated technological advances and considers methods for allowing incorporation of technological advances in the future.

54. *There is also a weighty concern that elected City officials have recently claimed there will be no increase in taxes to build the proposed in-town transit system, but they neglect to define whether any City services and necessary capital improvements will be sacrificed so this system can be paid for without raising taxes.*

Response: See response to comment #7.

55. *Thus, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board advocates full reconsideration of the proposed fixed high-capacity transit corridors along Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenues to allow for a) a comprehensive urban Honolulu traffic management plan based on current, area-specific statistics; b) independent evaluation undertaken by nationally-recognized experts to determine where there can be more efficient and flexible use of transit options, with more time saved for more people over the greatest area; and c) future consideration of fully-proven candidate technologies, in order to define the most suitable type of transit technology for Honolulu and ensure a reliable, economic and efficient transportation system with more flexible operations.*

Response: a) The Refined LPA is only one element in a comprehensive set of multi-modal improvements planned for in the Oahu Regional Transportation Plan (TOP 2025). b) The Federal Transit Administration (FTA) is responsible for reviewing the comparative cost-effectiveness of all new proposed transit systems before federal New Starts funding can be received. c) The FEIS proposes two possible technologies: hybrid-electric and embedded plate (EPT). Both technologies have been under development for several years. Hybrid-electric technology is in revenue service elsewhere and EPT is in the process of becoming service-proven. No technology will be implemented before it is service proven. Hybrid-electric buses will be deployed as an interim technology while other viable long-term technologies are being proven in service elsewhere. See response to comment #26.

56. *In addition, the City and County of Honolulu will need to demonstrate the claim that the cost to develop such a system will ensure that there will be neither an increase in local taxes nor sacrificing of City services, repairs, operations, improvements, or any other necessary day-to-day functions of the City, no matter whether they are budgeted and funded under capital improvements or under operations.*

Response: The financial analysis in Chapter 6 of the FEIS assumes that the City will need to phase the project as money is available from different federal and local sources, without raising taxes for either capital or operating expenses. The analysis shows how that can be done within the current financial capability of the City.

57. *Another overriding concern expressed by community leaders and concerned citizens is that no physical traffic testing has been conducted to determine the impact of separated lanes for the proposed in-town tram corridors on Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenue, or to demonstrate that such traffic lane re-allocation will result in less traffic congestion.*

Response: See response to comment #22.

58. *Consequent to separated transit corridor lanes and platforms consuming major portions of traffic arterias and thoroughfares, traffic congestion and gridlock will escalate even if fewer people are driving cars and more are using transit. In addition, the MIS/DEIS states that such would result in a reduced level of service for auto traffic within the urban core.*

Response: The Refined LPA proposes reallocation of general-purpose lanes for transit as the most reasonable way to achieve greater person carrying capacity in the future. The Refined LPA will provide an attractive, dependable, affordable alternative to the private automobile. It is not the conversion of lanes that will create the congestion, the congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

59. *Further, the MIS/DEIS states that parades and large events will not be affected, as rapid transit would be rerouted and replaced by buses during parades and large events (see MIS/DEIS @ 4-19 and 4-29). As parades are frequent in Waikiki, and the JWTF recommends even more festivals and parades to "Recapture the Magic of Waikiki", rapid transit could conceivably be replaced by buses more often than not.*

Response: Just as with existing bus routes, design of the BRT vehicle will allow it to divert to alternate routes during parades and other special events. Specifically in Waikiki, the BRT will use Kuhio Avenue in both directions or turn back prior to entering the affected portions of Waikiki and have patrons transfer to local buses which will continue to serve Kuhio Avenue. Since most parades are of limited duration and frequency it is hard to imagine that there could ever be more hours where the In-Town BRT would be re-rerouted than hours where it follows the proposed routing.

60. *Although this system is proposed to be permanently fixed within Honolulu's main traffic arteries, there is serious concern that there has been no effort to demonstrate that a) that no massive gridlock will occur, b) that vehicular traffic congestion will not increase exponentially with the permanent re-allocation of existing vehicular traffic lanes to dedicated high-occupancy lanes, and c) that traffic squeezed out of these main thoroughfares will not overflow or migrate into the surrounding communities and neighborhoods, as now demonstrated by current conditions during roadwork, water main, and other infrastructure repairs.*

Response: A test of closing a lane is not a test of what will happen with the In-Town BRT in the long-term. It is only a test of what happens when a lane is temporarily closed, which is something everyone knows the consequences of from when lanes are temporarily closed during utility construction.

As is pointed out in Chapter 4 of the FEIS, over time there will be enough people diverted from autos to transit to offset the impact of converting lanes for priority use by buses. This diversion from autos will only happen once it is clear that the BRT installation is a permanent improvement, not part of some test.

What is proposed with the first branch between Iwilei and Waikiki will be a good test of the ability of BRT to attract new riders and the impacts of converting lanes in selected locations.

61. *The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes further consideration of in-town seperated transit until physical traffic testing is conducted over a period of several months, including along Kapiolani Boulevard, University Avenue, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenues, to demonstrate successful mitigation of the expected exponential traffic overflow impact on surrounding communities and neighborhoods.*

Response: See response to comment #22.

62. *In addition, the MIS/DEIS relies on arbitrary ridership projections for the proposed in-town transit system "based on today's needs", as stated by a City transportation consultant. Such projections stem from the 1990 Islandwide Oahu Census, as revised downward by 50,000 in 1999 by the State Department of Business, Economic Development and Tourism and as arbitrarily allocated solely to the Primary Urban Center by the City for the purpose of the MIS/DEIS and qualifying for federal funds. However, in addition to arbitrary allocation of islandwide population to the Primary Urban Center for the purpose of the MIS/DEIS, such arbitrary projections do not take into consideration a) the decrease in automobile registrations and bus ridership, b) corporate incentives for ride-sharing and van-pooling, c) more employees and businesses now choosing "telecommuting" over commuting to a downtown office, and d) the State administration advocating staggered work hours for City and State employees.*

Response: The travel forecasts for the Primary Corridor Transportation Project are not arbitrary, they were developed using travel forecasting procedures developed for the Oahu Metropolitan Forecasting Model Development Project in April 1998. These procedures simulate the choices made by residents, businesses, and visitors regarding the nature, number, mode, time-of-day, and geographic orientation of trips that they make on a typical weekday. The procedures have been developed with data obtained in extensive surveys of Oahu households, transit riders, and air passengers. Future year forecasts reflect the population and employment forecasts that have been prepared by DBEDT and the zonal allocations that have been prepared by the City Department of Planning and Permitting.

These forecasts were prepared for all future planning being done by the City and State and were not "arbitrarily allocated" for this or any other project to qualify for federal funds as is alleged. The forecasts do reflect recent and long-term trends in trip making, mode usage, and efforts of travel demand management measures.

The travel forecasting methodology and resulting travel forecasts used for the Primary Corridor Transportation Project are described in Chapter 2 of Product 7-19 Technical Memorandum of Travel Forecasting Results (Final). The transportation plan for Oahu is described in the Oahu Metropolitan Planning Organization's report, Transportation for Oahu Plan TOP 2025, April 6, 2001.

63. *Nor does the MIS/DEIS disclose who the perceived potential riders are other than the current bus ridership, and how they can be cajoled out of their valued vehicles – or how the in-town fixed transit operations costs and subsidies would be shared between the proposed in-town ridership and Honolulu taxpayers. Due to such arbitrary and incomplete statistical and fiscal information, we question the urgency to make a decision on establishing the proposed in-town dedicated fixed transit system.*

Response: Chapter 4 of the FEIS does define the composition of the ridership of the proposed transit system for all three alternatives. Chapter 6 of the FEIS shows the amount of O & M costs paid for from user fares and the amounts paid for from other sources including subsidies. The City Council passed Resolution 00-29, CD-1, that sets a policy that "the bus farebox recovery ratio not fall below 27 percent nor exceed 33 percent."

64. *Expressed concerns have also been presented regarding the proposed in-town tram system's consumption of the needed eastbound traffic lane on Kalakaua Avenue so the system might loop around Waikiki. One lane removal has recently occurred, where the City has reduced four traffic lanes to three lanes along Kalakaua Avenue in order to expand the Kuhio Beach recreation area. With the proposed addition of a dedicated rapid transit lane, traffic would be reduced to two lanes that would include stopping and loading by delivery, tour and other commercial transportation vehicles. This portends disaster for Waikiki by causing further congestion and gridlock of Waikiki's internal traffic and services. Thus, removal of any of the remaining vital vehicular traffic lanes on Kalakaua Avenue is unthinkable and unwarranted.*

Response: The proposed In-Town BRT lane along Kalakaua Avenue has been revised. The proposed curbside BRT lane would extend from Saratoga Road to Uluniu Avenue as a semi-exclusive lane, which allows private buses and right turning vehicles to share the curbside lane with the BRT. Koko Head of Uluniu, the BRT will operate in mixed traffic to Kapahulu Avenue where it turns left in the mauka direction.

65. *The MIS/DEIS is deficient in addressing the proposed in-town fixed transit system's impact on private transportation systems. Pertaining to the proposed in-town fixed transit system in Waikiki, transportation carriers, unions and hotel interests have expressed concerns that include a) displacement of established local carriers who provide frequent and convenient stops, b) jeopardy to the survival of such carriers who service Waikiki successfully and without subsidy (see: 1999 Joint Waikiki Task Force report, Appendix B), c) impact to tax revenues by such losses while spending more on higher public transportation subsidies, d) restricted curb lanes for trams running every four (4) minutes that force tour buses, trolleys and taxis to unload elsewhere and to use limited vehicular lanes to do so (see MIS/DEIS @4-24), and d) (sic) impact on transport and delivery routes for goods and services that are Waikiki's lifeline to survival as a major visitor destination.*

Response: See response to comment #23.

66. *The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town fixed and separated transit corridor loop around Waikiki that disrupts the transport and delivery of goods and services, displaces local circulator carriers who provide frequent and convenient stops, jeopardizes the survival of such carriers who service Waikiki successfully and without subsidy, and that impacts transport and delivery routes for goods and services.*

Response: See response to comment #23.

67. *There is paramount concern that the MIS/DEIS is seriously deficient by neglecting to disclose that Kapiolani Park is within the Diamond Head Special District; that the Park is listed on the Hawaii State Register of Historic Places; and that the Park is protected under the provisions of a public charitable Trust which precludes construction of municipal facilities or any other encumbrance of Trust lands. Although not disclosed in the MIS/DEIS, one of the 24 power sub-stations the size of a "small house" is planned to be constructed within Kapiolani Park Trust lands (see: In-Town BRT Map No. 14, dated July 24, 2000).*

Response: Thank you for the information about Kapiolani Park. The information provided is now in the FEIS. For your information, the proposed In-Town BRT alignment in Waikiki would not traverse Kapiolani Park, including Honolulu Zoo, or the Diamond Head Special District. Although the easternmost section of the alignment would be along Kapahulu Avenue, which is just outside the park and special district, it would be consistent with the land use objectives of the Special District. In addition, as a result of the comments received regarding traction power supply station locations and further project refinements since the MIS/DEIS was distributed, the substation originally shown in the Kapiolani Park area has been relocated to a site along Kuhio Avenue. It should also be noted that substations would only be constructed if the embedded plate technology is selected.

68. *The MIS/DEIS states that according to the "Environmental Baseline Report" dated June, 1999, landscapes with the highest visual quality and character include Kapahulu Avenue between Kalakaua Avenue and Kuhio Avenue (MIS/DEIS @ 3-52). However, the MIS/DEIS curiously omits the Diamond Head Special District when referring to special view opportunism in special districts that have a "distinctly unique character due to cultural and historical context". Pursuant to the City's Land Use Ordinance, significant viewplanes surrounding Diamond Head and historic Kapiolani Park are protected within the Diamond Head Special District. However, the DEIS proceeds to ignore the special district zoning designation of the Diamond Head area as a historic, cultural and scenic District.*

Response: FEIS Section 3.4.3 has been revised to include Diamond Head as an important viewshed along the potential project alignment. The Refined LPA will not affect the Diamond Head viewshed.

69. *Within this designated special district is situated the historic property of the Kapiolani Park Trust, on which a transit stop in planned adjacent to the Zoo parking lot. Curiously, this remains undefined in the MIS/DEIS, although a rapid transit station site is disclosed on photographic overviews distributed at the MIS/DEIS information meetings on October 2 and 5. Further, the MIS/DEIS discloses that the "area of potential effect" on historic resources is impacted by BRT station stops, transit centers, and new ramps where such facilities might be elevated.*

Response: While the proposed In-Town BRT transit stop would be located adjacent to Honolulu Zoo, it would not use any of its property. The transit stop would not affect the historic characteristics of Kapiolani Park.

70. *The MIS/DEIS states: "Parklands: Use of the overflow parking lot at Aloha Stadium (relating to prior federal ownership of the land) would be coordinated with the Aloha Stadium Authority" (MIS/DEIS @ S-16). However, the DEIS mentions nothing about the proposed transit stop at Kapiolani Park and the impact on the historic Kapiolani Park Trust lands, specifically the Zoo parking lot restricted solely for park use in Kapiolani Park under court order (see: S.P. No. 89-0015, Conclusions of Law and Order @ 12 and 13). The impact on the Zoo parking lot and surrounding area as proposed to service a rapid transit stop is not addressed in the MIS/DEIS.*

Response: There is no plan to use the zoo parking lot for a park-and-ride.

71. *Also of significant absence in the MIS/DEIS is the fact that Kapiolani Park was listed on the Hawaii State Register of Historic Places in 1992 and is eligible for the National Register, thus protected by federal historic preservation laws.*

Response: See responses to comments #67 and #69.

72. *The monkeypod trees within the Zoo parking lot of Kapahulu Avenue are an integral part of the historic landscape of Kapiolani Park, and living assets of the Kapiolani Park Trust. Collectively, they are a significant landscape feature along Kapahulu Avenue, a portion of which is also within Kapiolani Park Trust lands. Yet, the MIS/DEIS discloses that the monkeypod trees at this location are planned to be removed, relocated or cut back for rapid transit purposes (figure 5.7-1B), and the MIS/DEIS is silent on the significant negative impact this may have on the irreplaceable historic landscape and viewplanes of Kapiolani Park.*

Response: The monkeypods on Kapahulu Avenue at the Honolulu Zoo parking lot are part of the Kapiolani Park Trust lands, and may require some pruning, but they will not be removed nor relocated. Therefore, it is not expected that the pruning would have significant negative impacts on the landscape or viewplanes of Kapiolani Park Trust lands. The FEIS tree impacts discussion has been expanded to provide details on the individual tree impacts expected from the Refined LPA.

73. *Further, the MIS/DEIS states that there could be special paving at crosswalks, street lighting, banners, street furniture, and plantings along the entire corridor, which would "enforce the character of the area and sense of place." Kapiolani Park is a protected historic landscape, and the Zoo parking lot fronting Kapahulu Avenue is resplendent with majestic Monkeypod trees. To add a cluttered carnival of banners, street furniture and decorative paving would compromise the historic character and integrity of the historic landscape along Kapahulu Avenue, and annihilate Kapiolani Park's enduring historic sense of place.*

Response: The appropriateness of paving, landscape treatment, street furniture and lighting will be sensitively accomplished, with input from various community groups. It is true that there needs to be a balance, and that "sense of place" should be maintained and even reinforced.

74. *In addition, the MIS/DEIS states that the embedded electro-plate technology of the rapid transit system "requires substations every 1/2 mile (i.e., 24 buildings about the size of a small one-story house). They could be designed to blend in with the surrounding neighborhoods and placed underground where the water table permits, if necessary" (MIS/DEIS @ 5-38). Such a rapid transit electric substation is planned on Kapiolani Park Trust lands at the Zoo parking lot adjacent to a transit stop. This would not appear to have the ability to meet the "visual compatibility" assessment for Kapiolani Park's important visual resource, as the brackish water table is only inches below the sandy sub-surface layer. Ironically, the MIS/DEIS claims that this "offers an opportunity to enhance the visual quality of the streetscape..." (MIS/DEIS @ 5-39), and completely ignores Assessment of Effect on this historic resource on table 5.10-1.*

Response: See response to comment #67.

75. *Nor would such a municipal utility facility as a power substation be in conformance with the Court's findings (see: SP No. 89-0015, City and County of Honolulu v. State Attorney General and Kapiolani Park Preservation Society). Notably, the Court order precludes use of Kapiolani Park Trust lands for municipal facilities, and provides for addition of adjacent lands to the Trust to compensate for ongoing municipal use of such lands for a pre-existing fire station, while continuing to retain such lands within the Trust.*

Response: See response to comment #67.

76. *At a City Council presentation and public hearing on the MIS/DEIS on October 5, a Trans Hawaiian transportation representative recommended converting Jefferson School to a BRT terminus. In response, the City Councilmen for the district and Kapiolani Park Trustee interjected a suggestion for such use on only that portion of the school site which is currently open space. However, much of this contemplated portion of Jefferson School along Kapahulu Avenue is also within the historic Kapiolani Park Trust boundary (see: Monserrat Survey Map dated 1883). Prior to this, at a Kapahulu community visioning group meeting on June 21, 2000, the same Kapiolani Park Trustee and City Councilmen for the district suggested that the community "think large" and consider the Kapiolani Park Trust lands at the Zoo location and at Jefferson School as possible sites for a municipal parking lot and transit center locations. The significant impact of such suggestions, as well as the impact of the proposed transit stop on the Zoo parking lot set aside for park use only, and the impact on the surrounding community through which transit riders would commute to park at the Zoo parking lot, are not addressed in the MIS/DEIS. This supports the conclusion that the cumulative impact of the larger project has not been addressed, much less disclosed, in the MIS/DEIS.*

Response: The Refined LPA will not use Jefferson School as a municipal parking lot or transit center location. The Kapahulu transit stop, while adjacent to Honolulu Zoo, would not use any of its property. The transit stop will not affect Kapiolani Park, and will be consistent with land use objectives of the Diamond Head Special District. Cumulative impacts are fully discussed in the MIS/DEIS and in FEIS Chapter 4, Transportation Impacts and Chapter 5, Environmental Analysis and Consequences.

77. *There is mounting concern that the in-town tram system is planned to run along a seperated traffic lane on the makai side of Kalakaua Avenue, further impacting ancient Hawaiian burials at this locations, which is also neither mentioned nor addressed in the MIS/DEIS. The MIS/DEIS generally states, "Should archaeological resources be encountered during construction, work would stop immediately and the State Historic Preservation Officer would be contacted" (MIS/DEIS @ S-16). However, the MIS/DEIS then specifically refers to potential disturbance on Middle Street and Kalia Road, but mysteriously does not mention Kalakaua Avenue (MIS/DEIS @5-66), where such disturbance has happened several times before in Waikiki, most recently*

when public works projects along Kalakaua Avenue unearthed and disturbed Hawaiian burials – causing great public outcry and controversy. An embedded electro-plate transit corridor along the same route will undoubtedly disturb several more iwi kupuna. Yet, the MIS/DEIS states further that, "An archaeological contingency procedure would be developed in the 'unlikely' event that 'unanticipated' resources are encountered during construction" (MIS/DEIS @ S-17).

Response: Section 5.10.2 of the FEIS under the Refined LPA has been revised to disclose the potential for uncovering subsurface archaeological resources, such as cultural layers and deposits and human burials, during construction of the Middle Street maintenance facility and transit center, the Iwilei transit center, and at certain sections of the In-Town BRT should embedded plate technology be used. The FEIS includes the results of the archaeological assessment of the Refined LPA.

78. *The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town fixed and separated transit corridor loop around Waikiki, including along Kapahulu Avenue, a) that necessitates the construction of power substations and peripheral parking for its support within the Diamond Head Special District and/or within Kapiolani Park Trust lands as listed on the Hawaii State Register of Historic Places, and b) that is permanently embedded on the makai side of Kalakaua Avenue, impacting the one of Oahu's significant views, the Kalakaua Avenue/Waikiki Beach coastal viewplane, and disturbing ancient Hawaiian burials along the Kalakaua Avenue shoreline. By such omissions as the above, and with the cumulative impacts of such facilities on the Waikiki area and surrounding communities and parklands remaining undisclosed, the MIS/DEIS is rendered defective and deficient.*

Response: There will be no substations or peripheral parking for the In-Town BRT within the Diamond Head Special; District and/or within Kapiolani Park Trust Lands. The physical improvements that would be visible along Kalakaua Avenue would be minimal, consisting of a single transit station along the street on the makai side. The transit station would be designed as an open, welcoming structure, well landscaped and integrated into the existing promenade.

79. *There is serious concern that the in-town tram system is planned to run along a separated traffic lane on the makai side of Kalakaua Avenue, impacting the Kalakaua Avenue/Waikiki Beach coastal viewplane, one of Oahu's significant views. The MIS/DEIS states that according to the "Environmental Baseline Report" dated June, 1999, landscapes with the highest visual quality and character include the portions of Kalakaua Avenue along Waikiki Beach. In addition, the Kalakaua Avenue/Waikiki Beach coastal viewplane is listed as one of Oahu's significant views as identified on the City's "Coastal View Study" of 1987. (MIS/DEIS @ 3-52). A high-capacity dual tram every four minutes and associated transit stops dedicated to the makai lane of Kalakaua Avenue would adversely impact the shoreline viewplane and "Hawaiian Sense of Place" along the length of Kuhio Beach and in front of the historic Moana Hotel. This would result in a misplaced and ultimately destructive endeavor, demonstrating that the "Hawaiian sense of place" continues to elude City planners.*

Response: Because the visual quality and character of the Kalakaua Avenue/Waikiki Beach environment is rated very high, great care will be exercised in designing the alignment through this area. The proposed BRT system will have no visible overhead lines or rail tracks in the street. The stop at Uluniu Avenue would be designed as an open, welcoming structure, well landscaped, and integrated with the existing promenade.

80. *Further, there is significant community concern that a) the MIS/DEIS states that "The majority of trees potentially effected are the monkeypods along Kapiolani Boulevard from Pensacola Street to Isenberg Street" where they will be removed, relocated or cut back to make way for the transit corridor, b) that transit corridor exclusive median lanes will be constructed along the length of University Avenue, together with platforms and divisive curbs that bisect the main thoroughfare and divide the community and neighborhoods through which it runs, and which will necessitate the removal of the recently-planted Shower trees, and c) that historic monkeypod trees will be removed, replaced or cut back in the vicinity of Kapiolani Park (MIS/DEIS @ 5-56 and figure 5.7-1B). Yet, the MIS/DEIS is vague and unresponsive regarding the exact locations, and the size and value of these historic trees and landscapes.*

Response: The discussion on tree impacts in the FEIS has been expanded to provide details on specific tree impacts expected from the project action. Where possible, project designs have avoided trees. However, some trees will have to be set back slightly, relocated or removed and replaced to allow for necessary road widening. In particular, ten monkeypod trees on Kapiolani Boulevard will be replanted farther from the curb. Trees to be moved will be pruned before replanting. Their canopy is expected to grow back within one year, with full recovery in three to five years. In the event that some larger trees cannot be successfully replanted, they would be removed and replaced with smaller trees of the same species. Recently planted Rainbow Shower trees on University Avenue would be relocated in the same area to allow for necessary reconfiguration of the roadway. No trees in Kapiolani Park proper would be affected, but some trees in the Kapiolani Park Trust lands on Kapahulu Avenue at the Honolulu Zoo parking lot may have to be pruned, but they will not require removal or relocation.

81. *There is also serious concern that the MIS/DEIS states that "some landscaping would be lost fronting the Convention Center on the makai side of Kapiolani Boulevard in order to widen the Kapiolani/Kalakaua intersection" to make way for the in-town tram system. With the recently-planted lush landscape screening removed, this prominent street frontage would then be left with a huge concrete facade which was intended to be concealed, softened and cooled by landscaping.*

Response: Minimal landscaping will need to be removed at the Convention Center. Whatever is removed will be relocated or replaced with similar types of trees in the same general location.

82. *Thus, there is serious concern that the planned changes to the physical environment, including the removal of decades of beautification efforts that have generated established trees and landscaping, and the addition of fixed transit lanes bisecting and dividing neighborhoods, will contribute to a cumulative loss in the quality of life for the surrounding communities.*

Response: The In-Town BRT has been carefully planned to minimize the loss of existing trees. In certain areas along the alignment, particularly Dillingham Boulevard and Kuhio, extensive additional landscaping is proposed including sidewalk reconstruction, tree plantings, and other vegetation. The BRT will be designed to provide a greater sense of visual order and unity because of physical improvements and landscape treatments along the alignment. There could be special paving at crosswalks, street lighting, street furniture, and plantings along the entire corridor which would reinforce each area's unique character and sense of place. In historic districts designs will be coordinated with the State Historic Preservation Department and representatives of the special districts. Where existing landscaping is affected by the BRT, mitigation is proposed.

BRT priority lanes will be identified by colored pavement, but otherwise will look the same as the rest of the street. This will not create a barrier. To the contrary, the BRT stops have the potential through community input during design to become cherished parts of each community.

83. *The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes construction of an in-town separated high-capacity transit corridor a) along Kapiolani Boulevard, where monkeypods from Pensacola Street to Isenberg Street are slated to be removed, relocated or cut back to make way for the transit corridor, b) along University Avenue where a fixed two-way transit corridor is planned to be constructed in the street median, thus necessitating the removal of the recently-planted Shower trees, c) within the Kapiolani/Kalakaua intersection on the makai side of Kapiolani Boulevard where the recently-planted and costly landscaping fronting the Convention Center would be lost to make way for the in-town transit lanes, and d) within the Diamond Head Special District and Kapiolani Park Trust lands where historic monkeypod trees are slated to be removed, replaced or cut back to make way for the in-town fixed transit line and ancillary facilities.*

Response: See responses to comments #80, #81, and #82.

84. *Conclusively, public comments, questions and concerns emanating from the community sector indicate that the MIS/DEIS is a) premature, as the City is without the capability to represent defined technology and subsequently specific costs thereof, b) segmented, by not disclosing the cumulative impacts of the larger project as required by federal and state environmental impact statement regulations, and c) incomplete, by neglecting to address the types of transit contemplated to access certain locations, the linkage to and types of transit centers and facilities at other locations, and how the components of the proposed plan correlate with the existing Primary Urban Center Development Plan and its 1999 proposed revisions, and d) inadequate, by not addressing increased congestion caused by converting existing traffic lanes into separate transit corridors to accommodate fixed transit lanes, and the necessary mitigation thereof.*

Response: a) The FEIS proposes two possible technologies: hybrid electric and embedded plate. Both technologies have been under development for several years and are in the process of becoming service-proven. To be conservative, the higher-cost technology was used for costing purposes. b) Cumulative impacts are fully discussed in the MIS/DEIS and the FEIS in Chapter 4, Transportation Impacts and Chapter 5, Environmental Analysis and Consequences. c) The types of transit that will service various locations, their linkages, transit centers and facilities, are described in Chapter 2 of the MIS/DEIS and FEIS. How components of the project relate to the PUC DP and its proposed revisions is discussed in Chapter 5 of the FEIS. d) Traffic impacts, which include level-of-service analyses of streets and intersections in the study area, are discussed in Chapter 4 of the MIS/DEIS and FEIS.

85. *In light of the above, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes any high-capacity transit corridor, peripheral facilities and ancillary infrastructure that will adversely or intrusively impact Waikiki shoreline viewplanes, historic sites and landscapes, parklands, internal traffic patterns, visitor center support services, surrounding communities and neighborhoods, and the "Hawaiian Sense of Place".*

Response: See responses to comments #23, #27, #59, #67, #70, #72, #78, #79, #80, and #82.

86. *We question the rationale behind promoting an in-town fixed rapid transit to replace more convenient and flexible circulator systems, and thus advocate full reconsideration of in-town fixed*

transit corridors and determination in the future where there can be more efficient and flexible use of time-proven technology. Honolulu has a nationally-recognized bus system, and the City administration must continue to maintain and maximize this resource to its fullest potential, including but not limited to flexible in-town circulators; express-bus, zipper-lane, and alternative energy upgrades; and ridership incentives.

Response: The In-Town BRT is only one element of the transit plan for the Primary Urban Center. The plan also includes conversion of the bus system to a hub-and-spoke network. The hub-and spoke network will consist of new local circulator routes, as well as continuation of many existing line haul and express routes. The goal is to have an integrated network of transit services that provides convenient and cost-effective options for potential users.

87. *In conclusion, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board rejects the proposed embedded transit system planned between Middle Street and Kapahulu Avenue, described in the MIS/DEIS as the In-town BRT Alternative, for the reasons stated and outlined above. Instead, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board strongly recommends the flexible, modifiable bus transit alternative, described in the MIS/DEIS as the Transportation System Management (TSM) Alternative, as the Preferred Alternative for the Primary Corridor Transportation Project, and supports the best efforts of the City and County of Honolulu to expedite and fulfill the commitment to expand and maintain the Transportation System management program to ensure that it is efficient, cost-effective and reliable.*

Response: Comment noted. It states the commenter's preference for a LPA.

88. *We are pleased to inform you that we strongly support continuation and full implementation of the flexible and modifiable Transportation Service Management (TSM) Alternative to serve the entire Primary Corridor, including the Urban Honolulu segment between Middle Street and Kalmuki.*

Response: Comment noted. It states the commenter's preference for a LPA.

89. *However, with respect to Bus Rapid Transit (BRT) Alternative, there appears to be sufficient reason to expect significant adverse in-town impacts on traffic patterns, business districts, neighborhoods, private transportation carriers, and surrounding communities from the magnitude of this proposed cumulative transportation project.*

Response: Chapter 4 of the FEIS addresses transportation impacts of the project. See response to comment #58.

90. *Thus, we find we can neither support nor recommend the proposed In-Town BRT Alternative for the purpose of the public decision-making process on this project.*

Response: Comment noted. It states the commenter's preference for a LPA.

91. *Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following: lack of correlation to pending Primary Urban Center development plan revisions;*

Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. The In-Town

BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

92. *Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following: absence of information and location of impacts on registered historic sites, landscapes, parklands, and ancient burial sites;*

Response: Historic properties (historic and archeeological sites), viewplanes (landscapes) and parklands at or near the project area are identified and impacts to these resources discussed in Chapters 3 and 5 of the MIS/DEIS and FEIS.

93. *Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following: incomplete and questionable community involvement and consensus in recommending specific components, facilities, and routes for the BRT Alternative;*

Response: See response to comment #36.

94. *Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following: absence of traffic testing for cumulative traffic impacts;*

Response: See response to comment #22.

95. *Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following: public and private circulator transportation, service and delivery operations and traffic impacts;*

Response: Through community outreach efforts including working with members of the Hawaii Transportation Association which represents private freight and passenger carriers, the subarea Working Groups, the Waikiki Improvement Association, and others, the City has developed a plan which minimizes direct impacts on passenger and freight loading zones, and, in the event of unavoidable adverse impacts, identifies alternate loading locations for all businesses along the BRT route. There will not be any measurable impact on businesses resulting from the loss of any loading zones. The impacts of the BRT on traffic congestion in Waikiki are shown in Table 4.2-7 of the FEIS.

96. *Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following: major infrastructure and utility impacts;*

Response: See response to comment #39.

97. *Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following: absence of defined and proven technology and associated cumulative capital costs and operations subsidies;*

Response: See responses to comments #26, #54, and #63.

98. *Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following: absence of ancillary facilities descriptions, locations, linkages and impacts on surrounding communities;*

Response: The FEIS includes information such as descriptions, linkages and impacts of the ancillary facilities such as transit centers and traction power supply stations associated with the project. These facilities are described in FEIS Chapter 2 and their impacts are discussed in Chapters 3, 4, and 5.

99. *Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following: compromised present quality of life and "Hawaiian Sense of Place", e.g., destruction and/or adverse impact to scenic viewplanes, historic landscapes, and Hawaiian burials to provide for embedded rapid transit infrastructure, utilities and facilities;*

Response: The Refined LPA, including its transit stops, will be designed collaboratively with the community. Transit stops can be open and contextual; substations can be placed and designed so that they will be unobtrusive, and integrated with the surrounding context. Community, neighborhood, historic, parklands, and visual effects are addressed in Chapter 5 of the FEIS.

100. *Our concerns, questions and comments focus on the proposed BRT Alternative. Our specific concerns include, but are not limited to, the following: incomplete expansion and improvement of the present Transportation Service Management program to its fullest potential, including the hub-and-spoke circulator system, express and articulated vehicles, dedicated freeway "zipper" lanes, and public and private ridership incentives, prior to any consideration of an embedded rapid transit alternative.*

Response: The Refined LPA described in the MIS/DEIS and FEIS does indeed include implementing a hub-and-spoke bus network, using express and articulated vehicles, and using the existing dedicated "zipper" lane. The Refined LPA also includes Transportation Demand Management (TDM) measures to reduce or shift the time of travel by private automobiles.

101. *The Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board opposes such a high-capacity transit corridor, peripheral facilities and ancillary infrastructure that will adversely or intrusively impact Waikiki shoreline viewplanes, historic sites and landscapes, parklands, internal traffic patterns, visitor center support services, non-subsidized private transportation carriers, surrounding communities and neighborhoods, and the "Hawaiian Sense of Place".*

Response: See responses to comments #23, #27, #59, #67, #70, #72, #78, #79, #80, and #82.

102. *We question the rationale behind promoting in-town fixed rapid transit to replace more convenient and flexible circulator systems. Honolulu has a nationally recognized bus system, and the City administration must continue to maintain and maximize this resource to its fullest potential, including but not limited to flexible in-town circulators; express-bus, zipper-lane, and alternative-energy upgrades; and ridership incentives.*

Response: See response to comment #86.

103. *In conclusion, the Diamond Head/Kapahulu/St. Louis Heights neighborhood Board rejects the proposed embedded transit system planned between Middle Street and Kapahulu Avenue.*

Instead, we strongly advocate the TSM Alternative, as the Preferred Alternative for the Primary Corridor Transportation Project, and support the best efforts of the City expedite and fulfill your commitment to expand and maintain the TSM program to ensure that it is efficient, cost-effective and reliable.

Response: Comment noted. It states the commenter's preference for a LPA.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

McCULLY/MOILILI NEIGHBORHOOD BOARD NO. 8

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

THE POSITION OF THE McCULLY-MO'ILI'ILI NEIGHBORHOOD BOARD NO. 8
THE TRANSPORTATION PLAN

The McCully-Mo'ili'ili Neighborhood Board No. 8 submits the following comments regarding the proposed Transportation Plan to the City Council of Honolulu and the City Administration.

1. The proposed dedicated fixed tram routes through McCully-Mo'ili'ili as communicated by the City Administration via the Department of Transportation Services as the preferred route voiced by McCully-Mo'ili'ili residents during the Trans 2K community meetings were never supported by participants from our neighborhood. We do not understand the basis for this statement by the City Administration via the Department of Transportation Services. We never supported a route up University Avenue or down Kapi'olani Boulevard.

2. The Major Investment Study Draft Environmental Impact Statement MIS/DEIS is deficient in its economic analysis on alternative modes of transportation and its impact on private transportation systems. The Board takes a cautious approach in supporting a transportation monopoly.

3. We question the logic and arguments presented for an in-town rapid transit system supported by a hub and spoke bus system to a redesigned Middle Street terminus rather than a rapid transit system from the outlining country areas to a Middle Street terminus that would connect riders to bus expresses into the urban core.

4. Due to conflicting statistical information, we question the immediate necessity to make a decision on establishing a dedicated fixed route system.

5. We question whether the City has maximized the potential of the current bus system. We are pleased that the City is investigating alternative forms of energy for the BRT; likewise we suggest that buses in the future could be powered by photovoltaic fuel cells in the future.

6. We believe the MIS/DEIS does not adequately address 21st Century communication systems and its impact on a work force traditionally reliant on transportation to and from an established work center.

7. The City states that the transportation system will dictate future development for the PUC. We believe the MIS/DEIS is does not adequately address social and environmental impacts related to development and growth. We believe transportation, planning, zoning and water resource allocation are inseparable in planning urban growth; and thus believe that an EIS should be prepared with these four components as a sum of the total rather than as individual denominations. We believe segmenting these four components, while perhaps legal under the law, is ultimately detrimental in determining our vision for the future; and ensuring the quality of life we desire for our community of McCully-Mo'ili'ili.

8. We believe that transportation should be developed to help level the economic playing field for small land owners and businesses. We do not believe the Honolulu transportation system should subsidize large investors and land owners at the expense of Hawaii's taxpayer.

9. We recommend a transportation study be undertaken by an outside independent company on the proposed BRT and the MIS/DEIS.

10. We recommend the development of a urban Honolulu traffic management plan before proceeding with any other transportation system.

AR00015536

11. We note that the general public has been given very little time to fully study and comprehend the enormity of the proposals; especially in its impact to development as proposed in the City's Draft Primary Urban Center Development Plan.

12. There are too many unanswered questions for the Board to take the next step in supporting a billion dollar BRT transportation venture.

13. The McCully-Mo'ili'ili Neighborhood Board support further studies to analyze financial, social and environmental impacts.

The Board unanimously adopted this position at its regular meeting on Thursday, November 2, 2000.

John Kato JS

John Kato, Chairperson

McCULLY/MOILILI NEIGHBORHOOD BOARD NO. 8

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

November 13, 2000

Ms. Cheryl Soon
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Mr. Robert Bramen
Parsons, Brinckerhoff, Quade & Douglas, Inc.
Pacific Tower, Suite 3000
1001 Bishop Street
Honolulu, Hawaii 96813

Ms. Donna Turchie
Senior Transportation Representative
Federal Transit Administration, Region IX
U.S. Department of Transportation
201 Mission Street, Suite 2210
San Francisco, California 94105-1839

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State Office Tower, Suite 702
235 South Beretania Street
Honolulu, Hawaii 96813

Subject: Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement

Dear Ms.Soon, Mr. Bramen, Mr. Turchie and Ms. Salmonson:

Enclosed is the McCully-Mo'ili'ili Neighborhood Board No. 8 response to the Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement. This response was transmitted via facsimile to the City Department of Transportation Services on November 6, 2000 from the Neighborhood Commission Office by the McCully-Mo'ili'ili Neighborhood Board's neighborhood assistant.

In addition, the McCully-Mo'ili'ili Neighborhood Board No. 8 has taken a position to support further expansion of the current bus transportation system to serve the rural communities and the primary urban center prior to advancing a Bus Rapid Transit or any other dedicated fixed route system.

We particularly note that McCully-Mo'ili'ili residents never supported the proposed BRT route or any other dedicated routes up Kapi'olani Boulevard and University Avenue during the O'ahu Trans2K meetings. Neither has McCully-Mo'ili'ili residents supported the proposed routes during other community planning and transportation meetings.

We are very concerned of the cumulative impacts of the proposed Primary Urban Center Development Plan, Transportation Plan and the Integrated Resource Plan for Water on the McCully-Mo'ili'ili neighborhood and the entire Ala Wai Canal Watershed Lowlands from Sheridan to Kapahulu. We strongly believe that good planning needs to address planning, zoning, transportation and water as a whole rather than segmented into individual denominations.

Therefore, the McCully-Mo'ili'ili Neighborhood Board No. 8 does not support the proposed BRT and will present our concerns during City Council discussion on Resolution 00-249, "Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project."

AR00015537

Thank you for the opportunity to present McCully-Mo'ili'ili Neighborhood Board No. 8's position and we look forward to your response on our concerns and comments.

Sincerely,

John Kato

John Kato, Chairperson
McCully-Mo'ili'ili Neighborhood Board No. 8

cc: Federal Highway Administration
O'ahu Metropolitan Planning Organization
Honolulu City Council
State Senators and Representatives
O'ahu Neighborhood Boards
Community Organizations
Transportation Companies

CITY COUNCIL TRANSPORTATION COMMITTEE MEETING

November 14, 2000

Subject: RESOLUTION 00-249 SELECTION OF A LOCALLY PREFERRED ALTERNATIVE FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

Aloha Chairperson Bainum and Members of the City Council Transportation Committee:

My name is Charles Torigoe and I am here on behalf of the McCully-Mo'ili'ili Neighborhood Board No. 8.

We are pleased to inform you that McCully-Mo'ili'ili Neighborhood Board No. 8 has taken a position to support further expansion of the current bus transportation system to serve the rural communities and the primary urban center prior to advancing a Bus Rapid Transit or any other dedicated fixed route system.

Attached for your information are comments unanimously supported by the McCully-Mo'ili'ili Neighborhood Board No. 8.

We particularly note that McCully-Mo'ili'ili residents never supported the proposed BRT route or any other dedicated routes up Kapi'olani Boulevard and University Avenue during the O'ahu Trans2K meetings. Neither has McCully-Mo'ili'ili residents supported the proposed routes during other community planning and transportation meetings.

We are very concerned of the cumulative impacts of the proposed Primary Urban Center Development Plan, Transportation Plan and the Integrated Resource Plan for Water on the McCully-Mo'ili'ili neighborhood and the entire Ala Wai Canal Watershed Lowlands from Sheridan to Kapahulu. There lacks correlation between the Transportation Plan and the proposed Primary Urban Center Development Plan. We strongly believe that good planning needs to address planning, zoning, transportation and water as a whole rather than segmented into individual denominations.

Therefore, the McCully-Mo'ili'ili Neighborhood Board No. 8 does not support the proposed BRT and will present our concerns during City Council discussion on Resolution 00-249, "Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project".

Thank you for the opportunity to present McCully-Mo'ili'ili Neighborhood Board No. 8's position and we look forward to your response on our concerns and comments.

POSITION OF THE McCULLY-MO'ILI'ILI NEIGHBORHOOD BOARD NO. 8 THE TRANSPORTATION PLAN

November 14, 2000

The McCully-Mo'ili'ili Neighborhood Board No. 8 submits the following comments regarding the proposed Transportation Plan to the City Council of Honolulu and the City Administration.

1. The proposed dedicated fixed tram routes through McCully-Mo'ili'ili as communicated by the City Administration via the Department of Transportation Services as the preferred route voiced by McCully-Mo'ili'ili residents during the Trans 2K community meetings were never supported by participants from our neighborhood. We do not understand the basis for this statement by the City Administration via the Department of Transportation Services.

2. The Major Investment Study Draft Environmental Impact Statement MIS/DEIS is deficient in its economic analysis on alternative modes of transportation and its impact on private transportation systems. The Board takes a cautious approach in supporting a transportation monopoly.

3. We question the logic and arguments presented for an in-town fixed Bus Rapid Transit system supported by a hub and spoke bus system to a redesigned Middle Street terminus. We suggest that a rapid transit system from the outlining country areas to a Middle Street terminus that would connect riders to bus expresses into the urban core should be open to further exploration and discussion.

4. Due to conflicting statistical information, we question the immediate necessity to make a decision on establishing a dedicated fixed route system.

5. We question whether the City has maximized the potential of the current bus system. We are pleased that the City is investigating alternative forms of energy for the BRT; likewise we suggest that buses in the future could be powered by photo-voltaic and fuel cells.

6. We believe the MIS/DEIS does not adequately address 21st Century communication systems and its impact on a work force traditionally reliant on transportation to and from an established work center.

7. The City states that the transportation system will dictate future development for the PUC. We believe the MIS/DEIS is does not adequately address social and environmental impacts related to development and growth. We believe transportation, planning, zoning and water resource allocation are inseparable in planning urban growth: and thus believe that an EIS should be prepared with these four components as a sum of the total rather than as individual denominations. We believe segmenting these four components, while perhaps legal under the law, is ultimately detrimental in determining our vision for the future; and ensuring the quality of life we desire for our community of McCully-Mo'ili'ili.

8. We believe that transportation should be developed to help level the economic playing field for small landowners and businesses. We do not believe the Honolulu transportation system should subsidize large investors and landowners at the expense of Hawaii's taxpayer such as the major developments planned for Kapi'olani Boulevard.

9. We recommend that a study be undertaken by an independent company for the proposed BRT and the MIS/DEIS.

10. We recommend the development of a urban Honolulu traffic management plan before proceeding with a fixed rail transportation system.

11. We note that the general public has been given very little time to fully study and comprehend the enormity of the proposals; especially in its impact to development as proposed in the City's Draft Primary Urban Center Development Plan.

12. There are too many unanswered questions for the Board to take the next step in supporting a billion dollar BRT transportation venture.

13. The McCully-Mo'ili'ili Neighborhood Board support further studies to analyze financial, social and environmental impacts for fixed rail transportation systems.

Adopted unanimously by the McCully-Mo'ili'ili Neighborhood Board No. 8 on November 2, 2000.

John Kato, Chairperson
McCully-Mo'ili'ili Neighborhood Board No. 8.

AR00015539

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL O. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD11/00-05417R
TPD11/00-05504R

Mr. John Kato, Chairperson
McCully/Moiliili Neighborhood Board No. 8
Neighborhood Commission
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Mr. Kato:

Subject: Primary Corridor Transportation Project

This is in response to your November 2, 2000 letter, your November 13, 2000 letter, and your November 14, 2000 position paper and resolution for the selection of a Locally Preferred Alternative, regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *The proposed dedicated fixed tram routes through McCully-Moiliili as communicated by the City Administration via the Department of Transportation Services as the preferred route voiced by McCully-Moiliili residents during the Trans 2K community meetings were never supported by participants from our neighborhood. We do not understand the basis for this statement by the City Administration via the Department of Transportation Services. We never supported a route up University Avenue or down Kapiolani Boulevard.*

   Response: Comment noted. It is a statement of opinion.

2. *The Major Investment Study Draft Environmental Impact Statement MIS/DEIS is deficient in its economic analysis on alternative modes of transportation and its impact on private transportation systems. The Board takes a cautious approach in supporting a transportation monopoly.*

   Response: Today, public transit service is only provided on Kuhio Avenue (both directions). The BRT will provide high frequency service on Kalakaua and Kuhio Avenues, thus increasing the area directly served by public transit. Based on the analysis of the potential impacts on private transportation providers as discussed in Section 5.1.5 of the FEIS, the private transportation providers will not be significantly adversely affected by the Refined LPA since they serve different travel markets. Even with the BRT, private operators will still be needed to serve the tourist travel market.

   The BRT routings, stop locations and other features are designed to serve trips by Oahu residents when going to-and-from home, work, school, shopping and other purposes. It is not designed to serve the tourist market as are the private bus operations in Honolulu. Unlike the private sector buses, the BRT will not pick passengers up at their hotels and take them on various scenic tours. It will not take them to-and-from the Airport. It will not take them to-and-from their hotels and the

Convention Center. It will not pick them up at the cruise ship terminal and carry them and their bags directly to their hotels. And unlike the private shuttles it is not designed to operate in a loop that only goes between the Waikiki hotels and various tourist sites of interest.

Some tourists may use BRT because it does serve some of the same destinations that the tourists want to go to, but the BRT serves these places because they are also major employment sites or sites that attract local residents, such as shopping centers or restaurants. The tourists expected to use the public transit system with the BRT is forecast to be no greater proportionally than today (i.e., less than 10-15 percent of total daily boardings).

3. *We question the logic and arguments presented for an in-town rapid transit system supported by a hub and spoke bus system to a redesigned Middle Street terminus rather than a rapid transit system from the [outlying] country areas to a Middle Street terminus that would connect riders to bus expresses into the urban core.*

   Response: The Primary Corridor Transportation Project (PCTP) includes a Regional BRT component that services the area from Kapolei to Middle Street by providing a system of express lanes, extension of the zipper lane and addition of a P.M. zipper lane from Kapolei to Middle Street. From the Middle Street Transit Center, riders would have the option of continuing into town using the In-Town BRT bus lanes or transferring to other buses servicing other destinations in the urban core.

   In the Refined LPA, the BRT operations plan has been revised to permit many of the regional buses to continue into town using the In-Town BRT bus lanes rather than turning back at Middle Street and forcing passengers to transfer. This will result in a faster, one vehicle trip for many riders. The Regional and In-Town BRT makes efficient use of the already in-place transportation infrastructure so that it can carry more people without the major widenings or elevated structures that would be required with a separate rapid transit system.

4. *Due to conflicting statistical information, we question the immediate necessity to make a decision on establishing a dedicated fixed route system.*

   Response: Comment noted. It is unclear what statistical information is being referenced.

5. *We question whether the City has maximized the potential of the current bus system. We are pleased that the City is investigating alternative forms of energy for the BRT; likewise we suggest that buses in the future could be powered by photovoltaic fuel cells in the future.*

   Response: DTS continually reevaluates the level of service provided by the existing bus system and has begun to reconfigure the existing radial network of bus routes to a hub-and-spoke configuration. An integral part of the Refined LPA is a hub-and-spoke bus network that would connect with the Regional and In-Town BRT systems, integrating the hub-and-spoke network with a fast, high-capacity transit system spanning the primary transportation corridor. The evolution of alternative technologies including fuel cells will continue to be monitored. One of the advantages of BRT compared to rail is its ability to adapt to changes in traction power technology over time.

6. *We believe the MIS/DEIS does not adequately address 21st Century communication systems and its impact on a work force traditionally reliant on transportation to and from an established work center.*

Response: The concept of telecommuting has been discussed for decades and yet has had no noticeable impact on travel demand to date. Even if telecommuting increases significantly in the future it would not eliminate the need for the Refined LPA.

7. *The City states that the transportation system will dictate future development for the PUC. We believe the MIS/DEIS does not adequately address social and environmental impacts related to the development and growth. We believe transportation, planning, zoning and water resource allocation are inseparable in planning urban growth; and thus believe that an EIS should be prepared for these four components as a sum of the total rather than as individual denominations. We believe segmenting these four components, while perhaps legal under the law, is ultimately detrimental in determining our vision for the future; and ensuring the quality of life we desire for our community of McCully-Moiliili.*

Response: The City has not said that the transportation system will dictate future development for the PUC. What has been stated in the MIS/DEIS and the FEIS is that a transportation system such as the Refined LPA could help shape where development occurs when other factors such as zoning, land use regulations, infrastructure, and market factors, are also in place. While there are relationships clearly between transportation, land use, zoning, water and other infrastructure, the planning for each of these elements does not have to occur simultaneously for there to be proper balance between these elements. Indeed in almost all cities these are separate planning activities that are coordinated but are under the purview of separate departments or agencies. Plans are dynamic, not static elements that can be frozen in time. They must be continually updated and revised periodically as new information is available. This updating process allows for the different elements to be brought in balance on an on-going basis.

8. *We believe that transportation should be developed to help level the economic playing field for small land owners and businesses. We do not believe the Honolulu transportation system should subsidize large investors and land owners at the expense of Hawaii's taxpayer.*

Response: Comment noted. None of the transit alternatives including the Refined LPA reflect any bias either in favor or against small vs. large land owners.

9. *We recommend a transportation study be undertaken by an outside independent company on the proposed BRT and the MIS/DEIS.*

Response: The Federal Transit Administration (FTA) is responsible for reviewing all new proposed transit systems before receiving federal funding. They often use independent consultants to review the proposals by applicants. Also, once a project is approved to enter the final design phase, an independent consultant is selected by FTA to perform project management oversight.

10. *We recommend the development of an urban Honolulu traffic management plan before proceeding with any other transportation system.*

Response: The Refined LPA is only one element in a comprehensive set of multi-modal improvements planned as part of the Oahu Regional Transportation Plan (TOP 2025).

11. *We note that the general public has been given very little time to fully study and comprehend the enormity of the proposals; especially in its impact to development as proposed in the City's Draft Primary Urban Center Development Plan.*

Response: There are required minimum public review periods within the environmental review process. If you find that these periods, such as those provided for the MIS/DEIS and SDEIS, are not sufficient for your review, we encourage you to request an extension before the deadline. For the MIS/DEIS, DTS provided an extension of time for public review and comments.

12. *There are too many unanswered questions for the Board to take the next step in supporting a billion dollar BRT transportation venture.*

Response: Comment noted. It is a statement of opinion.

13. *The McCully-Moiliili Neighborhood Board support further studies to analyze financial, social and environmental impacts.*

Response: Since the MIS/DEIS was published, additional environmental studies were conducted. A cultural practices (Act 50), tree survey, hazardous materials survey, and archeological survey have been completed. In addition, a Supplemental Draft Environmental Impact Statement (SDEIS) was prepared for the Kakaako Makai branch, Pensacola Street alignment change, and Aloha Stadium (Luapele Drive) ramp.

14. *The McCully-Moiliili Neighborhood Board No. 8 has taken a position to support further expension of the current bus transportation system to serve the rural communities and the primary urban center prior to advancing a Bus Rapid Transit or any other dedicated fixed route system.*

Response: Comment noted. It is a statement of the commenter's preference for a LPA.

15. *We particularly note that McCully-Moiliili residents <u>never</u> supported the proposed BRT route or any other dedicated routes up Kapiolani Boulevard and University Avenue during the Oahu Trans2K meetings. Neither has McCully-Moiliili residents supported the proposed routes during other community planning and transportation meetings.*

Response: Comment noted. It is a statement of opinion.

16. *We are very concerned of the cumulative impacts of the proposed Primary Urban Center Development Plan, Transportation Plan and the Integrated Resource Plan for Water on the McCully-Moiliili neighborhood and the entire Ala Wai Canal Watershed Lowlands from Sheridan to Kapahulu. We strongly believe that good planning needs to address planning, zoning, transportation and water as a whole rather than segmented into individual denominations.*

Response: While there are relationships clearly between transportation, land use, zoning, water and other infrastructure, the planning for each of these elements does not have to occur simultaneously for there to be proper balance between these elements. Indeed in almost all cities these are separate planning activities that are coordinated but are under the purview of separate departments or agencies. Plans are dynamic, not static elements that can be frozen in time. They must be continually updated and revised periodically as new information is available. This updating process allows for the different elements to be brought in balance on an on-going basis.

DTS agrees that cumulative impacts should be considered in transportation planning. The EIS for the Primary Corridor Transportation Project addresses the potential cumulative impacts including water quality. Impacts on water resources can result from various urban development projects planned within the Ala Wai Canal watershed and other watersheds, respectively. Because this

project and other transportation projects are intended to enhance transit use and thereby reduce reliance on private vehicles, the cumulative effect of these planned projects would be to reduce pollution caused by automobiles over time.

17. *Therefore, the McCully-Moiliili Neighborhood Board No. 8 does not support the proposed BRT and will present our concerns during City Council discussion on Resolution 00-249, "Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project."*

Response: Comment noted. It states the commenter's preferance for a LPA.

18. *We are pleased to inform you that McCully – Moiliili Neighborhood Board No. 8 has taken a position to support further expansion of the current bus transportation system to serve the rural communities and the primary urban center prior to advancing a Bus Rapid Transit or any other dedicated fixed route system.*

Response: Comment noted. It states the commenter's preference for a LPA.

19. *We particularly note that McCully-Moiliili residents never supported the proposed BRT route or any other dedicated routes up Kapiolani Boulevard and University Avenue during the Oahu Trans 2K meetings. Neither has McCully-Moiliili residents supported the proposed routes during other community planning and transportation meetings.*

Response: Comment noted. It is a statement of opinion.

20. *We are very concerned of the cumulative impacts of the proposed Primary Urban Center Development Plan, Transportation Plan and the Integrated Resource Plan for Water on the McCully-Moiliili neighborhood and the entire Ala Wai Canal Watershed Lowlands from Sheridan to Kapahulu. There lacks correlation between the Transportation Plan and the proposed Primary Urban Center Development Plan. We strongly believe that good planning needs to address planning, zoning, transportation and water as a whole rather than segmented into individual denominations.*

Response: DTS agrees that cumulative impacts should be considered in transportation planning. The EIS for the Primary Corridor Transportation Project addresses the potential cumulative impacts including water quality. Impacts on water resources can result from various urban development projects planned within the Ala Wai Canal watershed and other watersheds, respectively. Because this project and other transportation projects are intended to enhance transit use and thereby reduce reliance on private vehicles, the cumulative effect of these planned projects would be to reduce pollution caused by automobiles over time.

21. *Therefore, the McCully-Moiliili Neighborhood Board No. 8 does not support the proposed BRT and will present our concerns during City Council discussion on Resolution 00-249, "Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project".*

Response: Comment noted. It is a statement of the commenter's preference for an LPA.

22. *The proposed dedicated fixed tram routes through McCully-Moiliili as communicated by the City Administration via the Department of Transportation Services as the preferred route voiced by*

McCully-Moiliili residents during the Trans 2K community meetings were never supported by participants from our neighborhood. We do not understand the basis for this statement by the City Administration via the Department of Transportation Services.

Response: Comment noted. It is a statement of opinion.

23. *The Major Investment Study Draft Environmental Impact Statement MIS/DEIS is deficient in its economic analysis on alternative modes of transportation and its impact on private transportation systems. The Board takes a cautious approach in supporting a transportation monopoly.*

Response: See response to comment #2.

24. *We question the logic and arguments presented for an in-town fixed Bus Rapid Transit system supported by a hub and spoke bus system to a redesigned Middle Street terminus. We suggest that a rapid transit system from the outlining country areas to a Middle Street terminus that would connect riders to bus expresses into the urban core should be open to further exploration and discussion.*

Response: See response to comment #3.

25. *Due to conflicting statistical information, we question the immediate necessity to make a decision on establishing a dedicated fixed route system.*

Response: Comment noted. It is unclear what statistical information is being referred to.

26. *We question whether the City has maximized the potential of the current bus system. We are pleased that the City is investigating alternative forms of energy for the BRT; likewise we suggest that buses in the future could be powered by photo-voltaic and fuel cells.*

Response: See response to comment #5.

27. *We believe the MIS/DEIS does not adequately address 21st Century communication systems and its impact on a work force traditionally reliant on transportation to and from an established work center.*

Response: See response to comment #6.

28. *The City states that the transportation system will dictate future development for the PUC. We believe the MIS/DEIS does not adequately address social and environmental impacts related to development and growth. We believe transportation, planning, zoning and water resource allocation are inseperable in planning urban growth; and thus believe that an EIS should be prepared with these four components as a sum of the total rather than as individual denominations. We believe segmenting these four components, while perhaps legal under the law, is ultimately detrimental in determining our vision for the future; and ensuring the quality of life we desire for our community of McCully-Moiliili.*

Response: See response to comment #7.

29. *We believe that transportation should be developed to help level the economic playing field for small landowners and businesses. We do not believe the Honolulu transportation system should subsidize large investors and landowners at the expense of Hawaii's taxpayer such as the major developments planned for Kapiolani Boulevard.*

    Response: See response to comment #8.

30. *We recommend that a transportation study be undertaken by an independent company for the proposed BRT and MIS/DEIS.*

    Response: See response to comment #9.

31. *We recommend the development of an urban Honolulu traffic management plan before proceeding with a fixed rail transportation system.*

    Response: See response to comment #10.

32. *We note that the general public has been given very little time to fully study and comprehend the enormity of the proposals; especially in its impact to development as proposed in the City's Draft Primary Urban Center Development Plan.*

    Response: See response to comment #11.

33. *There are too many unanswered questions for the Board to take the next step in supporting a billion dollar BRT transportation venture.*

    Response: Comment noted. It is a statement of position.

34. *The McCully-Moiliili Neighborhood Board support further studies to analyze financial, social and environmental impacts for fixed rail transportation systems.*

    Response: See response to comment #13.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

MAKIKI/LOWER PUNCHBOWL/TANTALUS NEIGHBORHOOD BOARD NO. 10
c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

October 26, 2000

City Council
City and County of Honolulu

At our October meeting after numerous meetings and briefings the Makiki, Lower Punchbowl, Tantalus Neighborhood Board, #10 voted for the following position with regard to the Primary Corridor DEIS. We recommend the TSM alternative with the addition of expanded zipper lanes, new access ramps and express lanes on H-1. We specifically oppose exclusive or semi-exclusive transit lanes on existing streets between Middle Street and Waikiki / University of Hawaii.

We believe that land use planning should proceed and not follow transportation planning. Growth forecasts are not supported in the plan, or by reference, and follow some vague but unstated goals. There is no community consensus that states growth in the PUC is desired. Existing growth plans for Kapolei and the changes in work habits due to technology changes are not factored into the study.

The flaw in the BRT plan is that it superimposes through traffic on existing local traffic. In comparing this to the elevated light rail proposed in 1992, we have the same proposal with no grade-separated traffic. We now use existing streets for the mass transit. This is not an improvement.

John Steelquist,
Chair

AR00015543

Makiki/Lower Punchbowl/Tantalus
Neighborhood Board

Primary Corridor Transportation DEIS

THREE TRANSPORTATION ALTERNATIVES
1) NO-BUILD-currently programmed transportation projects
2) HUB-&-SPOKE BUS NETWORK (TSM)
3) BUS RAPID TRANSIT (BRT) -dedicated (exclusive) lanes

BASIC INFORMATION
1) BUS RIDERSHIP HAS GONE DOWN
2) OAHU VEHICLE REGISTRATION HAS GONE DOWN
3) DEIS USED OLD PROJECTED 2025 POPULATION FIGURE
4) DEIS PROJECTED A 74% RIDERSHIP INCREASE FOR 2025

DEDICATED (EXCLUSIVE) LANES
1) 2 DEDICATED + STATION + 2 NON-EXPRESS BUS LANES ON KAPIOLANI BLVD. ALSO ON ALA MOANA BLVD
2) DIVERT TRAFFIC TO OTHER MAIN & NEIGHBORHOOD STS.
3) NEGATIVELY IMPACT NORTH/SOUTH STREETS LIKE WARD, PIIKOI, PENSACOLA, KEEAUMOKU & UNIVERSITY
4) NEGATIVELY IMPACT SALESPERSONS, DELIVERY & SERVICES PERSONS
5) LARGE DEVELOPMENTS LIKE WAL-MART & EXPANDED ALA MOANA CENTER

FACTORS NOT CONSIDERED IN THE 2025 DEIS
1) DEIS ASSUME PRESENT CONDITIONS FOR 2025, NOT FUTURE POTENTIAL CONDITIONS
2) CITY'S VISION FOR THE IN-TOWN GROWTH DEVELOPMENT
3) POTENTIAL GROWTH IN EWA & CENTRAL OAHU
4) ALTER WORK & SOCIAL HABITS OVER THE NEXT 25 YEARS
5) CHANGES IN VEHICLES, THEIR TOTALS & SUPPORT FIRMS

COSTS AND TAXES
1) ESTIMATING A BRT SYSTEM THAT HASN'T BEEN BUILT
2) DEIS ESTIMATES REQUIRES MORE REAL ESTATE TAXES
3) CAN HECO DELIVER THE ELECTRICITY,HOW & COST?

SENIOR CITZENS
1) SENIORS TEND TO USE NON-EXPRESS BUSES RATHER THAN EXPRESS BUSES WITH 1/4 TO 1/2 MILE STOP

CITY'S DTS STATED THAT IT WANTED TO ESTABLISH THE DEDICATED LANES AS SOON AS POSSIBLE

MAKIKI NEIGHBORHOOD BOARD ON OCT. 19TH PASSED THE FOLLOWING MOTIONS:

1) THE BOARD WAS AGAINST THE BUS RAPID SYSTEM WITH DEDICATED LANES. (11-0-1)

2) THE BOARD WAS FOR THE HUB-&-SPOKE NETWORK (TSM) WITHOUT DEDICATED LANES. (11-1-0)

MAKIKI/LOWER PUNCHBOWL/TANTALUS NEIGHBORHOOD BOARD NO. 10

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

March 22, 2002

Ms. Cheryl Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

The Makiki/Tantalus/Lower Punchbowl Neighborhood Board No. 10 voted unanimously (9-0) on March 21, 2002 to request the Department of Transportation Services to hold a public meeting on the Supplemental Draft Environmental Impact Statement – Primary Corridor Transportation Project (PCTP) during its review period. The meeting in the middle of April would be most appropriate to allow the public to prepare their comments for submission by May 7, 2002.

Also, the public should be permitted to ask questions on draft EIS and give comments at their meeting. This procedure was followed at a public meeting for the Major Investment Study/DEIS for PCTP.

This meeting would continue your excellent citizens participation for this project.

Sincerely,

John Steelquist, Chair

Cc: Councilmember Ann Kobayashi
Councilmember Duke Bainum
PUC Neighborhood Board Presidents
file

Oahu's Neighborhood Board System-Established 1973

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP3/02-01177R

April 12, 2002

Mr. John Steelquist, Chair
Makiki/Lower Punchbowl/Tantalus
Neighborhood Board No. 10
c/o Nieghborhood Commission
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Mr. Steelquist:

Subject: Primary Corridor Transportation Project

This responds to your March 22, 2002 letter related to the Makiki/Lower Punchbowl/Tantalus Neighborhood Board No. 10 request that a public meeting be held on the Supplemental Draft Environmental Impact Statement (SDEIS) for the subject project.

This is to inform you that a public hearing has been scheduled to receive comments on the SDEIS and the potential project impacts. The public hearing will be held on Saturday, April 20, 2002 at the Hawaii Convention Center, Rooms 319A & B, 1801 Kalakaua Avenue.

There will be an open house from 10:00 a.m. until 11:00 a.m., prior to the receiving of public testimony. Displays and other project information will be available to provide attendees with information on the proposed project. During this time, project staff will be available to answer any questions regarding the SDEIS.

The project presentation will begin at 11:00 a.m. and will be followed by public testimony on the project. Persons wishing to speak at the hearing should sign up at the hearing site between 10:00 a.m. and 11:00 a.m., prior to the start of the project presentation.

Should you have any questions regarding the subject project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

APR 2 0 2002

MAKIKI/LOWER PUNCHBOWL/TANTALUS NEIGHBORHOOD BOARD NO. 10

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

April 20, 2002

Ms. Cheryl D. Soon
DTS, City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, HI, 96813

The Makiki Neighborhood Board #10 opposes the Bus Rapid Transit (BRT) as currently proposed. It provides a small increase in transportation convenience for a small portion of the Oahu residents and imposes a large transportation inconvenience on a large portion of Oahu residents. The in-town part of the BRT system imposes a through traffic impact on the local in-town circulation without providing a relief or improvement to the in-town circulation. The Primary Urban Core (PUC) hub-and-spoke should be designed and tested before any construction of BRT past Middle Street. Design the in-town circulation first then link it with the Kapolei to Town rapid transit.

The supplemental DEIS states that transportation should "support desired development patterns", but PUC development plan is on hold again. Transportation construction should not precede community approval of the Development Plan.

This is titled a transportation plan, but it is a rapid transit plan. It is a bus plan. It has been written with a very strong bias. The desire to obtain Federal Transportation funds for mass transit seems to be a given. The need for through transit from Kapolei to Waikiki seems to be a given. A real transportation plan should include options such as a serious effort to reduce transportation needs by building the Second City or telecommuting. Will there really be an employment need to go from Kapolei to Waikiki in 2025? Ocean transportation is not mentioned. The shortest route from Kapolei to Downtown or Waikiki is by sea. The ocean doesn't have to be repaved. For a billion dollars we could have a terrific ferry system.

There is a transportation problem, but the current BRT is incomplete and expensive. Honolulu should complete the PUC Development Plan, implement the in-town hub-and-spoke, and more completely analyze the transportation options for the 21st century.

John Steelquist, Chair

Oahu's Neighborhood Board System-Established 1973

MAKIKI/LOWER PUNCHBOWL/TANTALUS NEIGHBORHOOD BOARD NO. 10

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

May 7, 2002

MAY 7 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Comments and Concerns
Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

The Makiki/Lower Punchbowl/Tantalus Neighborhood Board No. 10 continues to support the TSM alternative over the BRT, even though the City Council has accepted the BRT alternative.

The Board is concerned about the traffic operations on King Street, Kapiolani Blvd., Ala Moana Blvd., and Pensacola Street with the reduced passenger and commercial vehicles on these streets. Motorists will choose to take alternate routes through surrounding communities and neighborhoods. This BRT would move more traffic on to our streets. The SDEIS doesn't address this problem since the SDEIS assumes that people will get out of their vehicles and take the BRT. Some people will stop using their vehicles, but most will continue to drive.

There is also the problem of the mauka/makai streets being blocked at the intersections of the BRT corridors. This will affect traffic all the way up to the H-1 and beyond. SDEIS doesn't cover this problem.

On street parking is planned to decline along the transit corridors because the BRT will be consuming up to two traffic lanes, which will necessitate removing parking spaces as outlined in the SDEIS. Therefore, parking impacts in communities and neighborhoods surrounding BRT transit corridors will be compounded, which is not addressed in the SDEIS.

The Public Transportation System's operating costs for FY 2002 seems to be underestimates based on the actual operating costs for its FY 2001. This raise the question about the system's cash flow analysis for FYs 2003 to 2025 as being underestimates. Will we be increasing the City's debt service and our taxes to pay for this transportation system?

Sincerely,

John A. Steelquist, Chair

cc: OEQC Ms. Genevieve Salmonson, Director

Oahu's Neighborhood Board System-Established 1973

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD12/00-05937R/05938R
TPD3/02-01177R
TPD5/02-01833R

Mr. John Steelquist, Chair
Makiki/Lower Punchbowl/Tantalus
Neighborhood Board No. 10
Neighborhood Commmission
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Mr. Steelquist:

Subject: Primary Corridor Transportation Project

This responds to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your October 26, 2000 letter, your oral testimony at the October 26, 2000 Special Transportation Committee Meeting, and your summary sheet of comments regarding the MIS/DEIS. Part B responds to your March 22, 2002 letter, your oral testimony at the April 20, 2002 public hearing, your April 20, 2002 letter, and your May 7, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *At the October meeting after numerous meetings and briefings, the Makiki, Lower Punchbowl, Tantalus Neighborhood Board, #10 voted for the following position with regard to the Primary Corridor DEIS. We recommend the TSM alternative with the addition of expanded zipper lanes, new access ramps and express lanes on H-1. We specifically oppose exclusive or semi-exclusive transit lanes on existing streets between Middle Street and Waikiki / University of Hawaii.*

   Response: Comment noted. It states the commenter's preference for a LPA.

2. *We believe that land use planning should proceed and not follow transportation planning. Growth forecasts are not supported in the plan, or by reference, and follow some vague but unstated goals. There is no community consensus that states growth in the PUC is desired. Existing growth plans for Kapolei and the changes in work habits due to technology changes are not factored into the study.*

   Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

3. *The flaw in the BRT plan is that it superimposes through traffic on existing local traffic. In comparing this to the elevated light rail proposed in 1992, we have the same proposal with no grade-separated traffic. We now use existing streets for the mass transit. This is not an improvement.*

   Response: The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly effected, either semi-exclusive or mixed-flow operation is proposed rather than exclusive lanes. In areas of high BRT ridership volumes, exclusive transit lanes are proposed such as on Dillingham Boulevard. A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public and the City Council were not in favor of an elevated transit system because of its high cost and its physical and visual impacts as discussed in FEIS Chapters 2, 3, and 5.

4. *The Neighborhood Board No. 10, after going to many meetings, some of us for ten years or more, believe that you should not pursue the Bus Rapid Transit. We believe the Transportation System Management will work with the addition of the zipper lanes and express ramps and express lanes.*

   Response: Comment noted. It states the commenter's preference for a LPA.

5. *Our concern is that by coming from Middle Street into the rest of town on existing roadways, you're going to be taking normal traffic and piling it up. You're going to have Christmas Ala Moana all year round in downtown. You're just not going to be able to get around. Keeaumoku will not be a viable street. Can't get from here to there.*

   Response: The FEIS Chapter 4 presents the traffic effects associated with the Refined LPA. It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

6. *If you remember right, ten years ago, it's going to cost us $2 billion to get in. Now it's only cost us $1.5. How come? The other half billion dollars you're taking out of the hide of the people who are trying to drive around their neighborhoods. So, we're very concerned that that part of this item not be done.*

   Response: The system proposed in the early 90s was an elevated rail rapid transit system, which is different from the proposed BRT.

7. *Also, we're concerned that we have a transportation plan going towards approval but we don't have a PUC development plan. And, we very strongly believe that land use should precede not follow transportation. We have the transportation tail wagging the land use dog here and we're a little concerned about that.*

   Response: See response to comment #2.

8. *Some of our briefings said, and, of course, the PUC should grow. Everybody agrees. We've had PUC meetings and they've stopped having them because nobody agreed. Are we going to have growth? We have plans for Kapolei that says people going to be out there. If that happens, we may not need this.*

   Response: Thank you for your concerns about issues being addressed in the Primary Urban Center Development Plan (PUC DP) update. We encourage your continued participation in the PUC DP process. Although the BRT Alternative was evaluated as being consistent with the Public Review Draft of the PUC DP (June 1999), the In-Town BRT would still be designed to support current land uses plus future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the BRT project.

9. *Technology changes a great deal. Three years ago we wouldn't have thought about Internet. Five years from now who needs transportation at all. So that you need not to spend $1.5 billion for something that may not happen. Fortunately, the funding seems to be not required until 2003. So, you may have a chance to start the first part of it without taking our streets downtown.*

   Response: As described in FEIS Chapter 1, there is sufficient present travel demand to justify the Refined LPA now. Not only is the system justified by present needs, but the need for the benefits of the system would become even more urgent as growth occurs. Therefore, as the executive agency charged with providing and maintaining adequate transportation infrastructure, it would be imprudent to not pursue implementing this project. A decision on the final technology will not be made until 2008. By then the long-term options will be service proven.

10. *DEIS used old projected 2025 population figure.*

    Response: The FEIS 2025 population projections have been revised. These population projections are the same as those used in the Transportation for Oahu Plan (TOP 2025) prepared for the Oahu Metropolitan Planning Organization, April 6, 2001.

11. *DEIS projected a 74% ridership increase for 2025.*

    Response: Comment noted. It is a statement of fact not requiring a response.

12. *DEIS assumes present conditions for 2025, not future potential conditions.*

    Response: It is unclear what is meant by future potential conditions.

13. *Factors not considered in the 2005 DEIS: City's vision for the In-Town Growth Development.*

    Response: The goals of the Primary Corridor Transportation Project are consistent with the City's vision for In-Town Growth Development.

14. *Factors not considered in the 2005 DEIS: Potential growth in Ewa & Central Oahu.*

    Response: The goals of the Primary Corridor Transportation Project and the Ewa and Central Oahu growth forecasts used in the MIS/DEIS and FEIS are consistent with planned development in Ewa and Central Oahu.

15. *Factors not considered in the 2005 DEIS: Alter work & social habits over the next 25 years.*

    Response: To the extent that they can be predicted, changes in work and social habits over the next 23 years are factored into the Oahu Metropolitan Planning Organization's travel demand model used for the project.

16. *Factors not considered in the 2005 DEIS: Changes in vehicles, their totals & support firms.*

    Response: It is not clear what is meant by "changes in vehicles, their totals, and support firms".

17. *DEIS estimates require more real estate taxes.*

    Response: This project has been developed following City Council policy to not increase taxes. The financial analysis (Chapter 6 of the FEIS) shows that no increases in existing taxes or new taxes will be required to fund the project as proposed.

18. *Can HECO deliver the electricity, how & cost?*

    Response: HECO has indicated that they can supply the electricity needed with the EPT system within the available capacity of their present facilities.

19. *Seniors tend to use non-Express buses rather than Express buses with 1/4 to 1/2 mile stop.*

    Response: Along with implementing the In-Town BRT, local transit service will be maintained with the Refined LPA. For example, local transit service on Dillingham Boulevard will be maintained, thereby providing convenient transit access for those choosing not to use the BRT stops, or for those who use the BRT and then transfer to the local route to complete their journey. These local buses will continue to provide seniors and other passengers with more closely spaced stops.

20. *Makiki Neighborhood Board on Oct. 19th passed the following motions: 1) The Board was against the Bus Rapid Transit System with dedicated lanes (11-0-1). 2) The board was for the Hub-&-Spoke Network (TSM) without dedicated lanes. (11-1-0).*

    Response: Comment noted. It states the commenter's preference for a LPA.

Part B – SDEIS Comments

21. *The Makiki/Tantalus/Lower Punchbowl Neighborhood Board No. 10 voted unanimously (9-0) on March 21, 2002 to request the Department of Transportation Services to hold a public meeting on the Supplemental Draft environmental Impact Statement – Primary Corridor Transportation Project (PCTP) during it's review period. The meeting in the middle of April would be most appropriate to allow the public to prepare their comments for submissions by May 7, 2002. Also, the public should be permitted to ask questions on draft EIS and give comments at their meeting. This procedure was followed at a public meeting for the Major Investment Study/DEIS for PCTP.*

    Response: DTS responded with a letter dated April 12, 2002 stating that the SDEIS public hearing would be held April 20, 2002.

22. *I'm the chair of the Makiki Neighborhood Board. Our board has continuously opposed the BRT as currently designed.*

    Response: Thank you for attending the public hearing and expressing your views regarding the project.

23. *The idea is that those people living in Manoa, Makiki, Nuuanu and Kalihi are going to be greatly disadventeged because of the additional red lights and the co-use of the road we're using now.*

    Response: Chapter 4 of the FEIS fully discusses the consequences of converting selected general purpose lanes to priority use by transit vehicles.

    When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

24. *We don't object to getting in from Kapolei to Middle Street.*

    Response: We concur that the Regional BRT is an important component of the BRT project.

25. *We heard a briefing, actually Thursday evening, about the hub-and-spoke. That may be a good thing. Let's do that first.*

    Response: The conversion of the existing bus system to a hub-and-spoke configuration is already on-going and will precede many of the other elements of the Refined LPA.

26. *Let's get the circulation inside the Downtown area worked out. Then we find out where we went to plug in the BRT coming in.*

    Response: Comment noted. It is unclear what circulation needs to be worked out in the Downtown area. The BRT will enhance mobility not only downtown, but from Kapolei to Waikiki.

27. *Let's also look at this as a transportation plan, not a bus plan. Instead we went through all these things.*

    Response: The OMPO's Transportation for Oahu Plan, TOP 2025, is Oahu's transportation plan and the BRT project is the transit component of the plan.

28. *But if you look at the alternatives, we had minimum bus, moderate bus, and a large bus.*

    Response: Comment noted.

29. *If you look at the map, if you went to get from Kapolei to Waikiki, go by boat. For a billion dollars, they can get a whole lot of boats to come in there.*

    Response: Comment noted.

30. *We started with, "Let's get the Federal Transportation dollars and see what we can do with them."*

    Response: The PCTP was initiated to solve the purposes and needs stated in Chapter 1. Capturing federal dollars is an approach to funding the LPA, not the starting point.

31. *Speaking of planning, one time, you said we'll do those PUC, the Public Urban Core Development. That plan has been stalled for years. Let's do that first. If we have the buses moving down, then we'll have to say, "How can we build our city around the buses?" Let's build the city first, then put the buses in later.*

    Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

32. *The Makiki Neighborhood Board #10 opposes the Bus Rapid Transit (BRT) as currently proposed.*

    Response: Thank you for taking the time to comment of the project. Your opposition to the BRT is noted.

33. *It provides a small increase in transportation convenience for a small portion of the Oahu residents and imposes a large transportation inconvenience on a large portion of Oahu residents.*

    Response: Chapter 4 of the FEIS shows that there will be reduced delays to motorists as well as transit riders with the Refined LPA.

34. *The in-town part of the BRT system imposes a through traffic impact on the local in-town circulation without providing a relief or improvement to the in-town circulation.*

    Response: See response to comment #5.

35. *The Primary Urban Core (PUC) hub-and-spoke should be designed and tested before any construction of BRT past Middle Street. Design the in-town circulation first and then link it with the Kapolei to Town rapid transit.*

    Response: Design of the PUC portion of hub-and-spoke system is scheduled to occur in FY 2003 and 2004. This will permit full coordination with implementation of the In-Town BRT.

36. *The supplemental DEIS states that the transportation should "support desired development patterns", but PUC development plan is on hold again. Transportation construction should not precede community approval of the Development Plan.*

    Response: See response to comment #2.

37. *This is titled a transportation, but it is a rapid transit plan. It is a bus plan. It has been written with a very strong bias.*

    Response: Comment noted. The proposed BRT is the transit component of OMPO's multi-modal Transportation for Oahu Plan, TOP 2025.

38. *The desire to obtain Federal Transportation funds for mass transit seems to be a given. The need for through transit from Kapolei to Waikiki seems to be a given. A real transportation plan should include options such as a serious effort to reduce transportation needs by building the Second City or telecommuting.*

Response: Significant growth in the Second City is reflected in the TOP 2025 and PCTP. With regard to telecommuting, the concept of telecommuting has been discussed for decades and yet has not had a noticeable impact on travel demand to date. Even if telecommuting increases significantly in the future it would not eliminate the need for the Refined LPA. Instead it would help flatten out the peaks.

39. *Will there really be an employment need to go from Kapolei to Waikiki in 2025?*

Response: According to the OMPO's Transportation for Oahu Plan, TOP 2025, the 2025 Ewa District's (which includes Kapolei) employment is projected to increase by 260% from 14,898 in 2000 to 56,634 in 2025. Even with the major growth in jobs forecast for the Ewa District, many residents of the District will still be commuting to Honolulu and Waikiki.

40. *Ocean transportation is not mentioned. The shortest route from Kapolei to Downtown or Waikiki is by sea. The ocean doesn't have to be repaved. For a billion dollars we could have a terrific ferry system.*

Response: Comment noted. While some ferry service could be a good complement to the BRT, a ferry system could not serve the many types of trips which the BRT will serve in the primary corridor.

41. *There is a transportation problem, but the current BRT is incomplete and expensive. Honolulu should complete the PUC Development Plan, implement the in-town hub-and-spoke, and more completely analyze the transportation options for the 21st century.*

Response: Transportation options have been thoroughly analyzed as part of the OMPO regional planning and City PCTP processes. Implementation plans reflect the full coordination between the hub-and-spoke, Regional and In-Town BRT components of the Refined LPA transit system.

42. *The Makiki/Lower Punchbowl/Tantalus Neighborhood Board No. 10 continues to support the TSM alternative over the BRT, even though the City Council has accepted the BRT alternative.*

Response: Comment noted. We appreciate you taking the time to review the environmental documents and state your preference for the TSM Alternative.

43. *The Board is concerned about the traffic operations on King Street, Kapiolani Blvd., Ala Moana Blvd., and Pensacola Street with the reduced passenger and commercial vehicles on these streets. Motorists will choose to take alternate routes through surrounding communities and neighborhoods. This BRT would move more traffic on to our streets. The SDEIS doesn't address this problem since the SDEIS assumes that people will get out of their vehicles and take the BRT. Some people will stop using their vehicles, but most will continue to drive.*

Response: Chapter 4 of the FEIS addresses traffic impacts for each of the streets mentioned. It acknowledges that with the Refined LPA there will be additional impacts to some streets along the alignment, but that overall there will be more benefits to not only transit riders but motorists as well. With regard to impacts to neighborhood streets, most neighborhood streets are discontinuous and would not be used as an alternate route by through traffic. In the event a neighborhood street is impacted, there are a variety of traffic calming measures that can be used to mitigate the impacts.

44. *There is also the problem of the mauka/makai streets being blocked at the intersections of the BRT corridors. This will affect traffic all the way up to the H-1 and beyond. SDEIS doesn't cover this problem.*

Response: The potential to extend the green phase for BRT buses will only be installed at those intersections where it would not create undue congestion for cross-street traffic.

45. *On street parking is planned to decline along the transit corridors because the BRT will be consuming up to two traffic lanes, which will necessitate removing parking spaces as outlined in the SDEIS. Therefore, parking impacts in communities and neighborhoods surrounding BRT transit corridors will be compounded, which is not addressed in the SDEIS.*

Response: Parking impacts in communities and neighborhoods surrounding the BRT transit corridor is addressed in the MIS/DEIS, SDEIS, and FEIS Section 4.3. As stated in the FEIS, it is expected that the Refined LPA will divert over 21,000 people per day out of their cars onto transit. Some of these former auto drivers will be able to give up their cars or park their cars at outlying park-and-ride facilities, thereby lessening the need for parking in the PUC. Nonetheless, DTS has committed that in areas where there is a large concentration of spaces affected, replacement parking in new off-street parking facilities will be considered, but only if they meet other livable community objectives and are the result of community based planning.

46. *The Public Transportation System's operating costs for FY 2002 seems to be underestimated based on the actual operating costs for its FY 2001. This raise the question about the system's cash flow analysis for FYs 2003 to 2025 as being underestimates. Will we be increasing the City's debt service and our taxes to pay for this transportation system?*

Response: The operating costs are calculated based on the size of the fleet and its operating plan, with an additional amount added for inflation.

This project has been developed following City Council policy to not increase taxes. The financial analysis (Chapter 6 of the FEIS) shows that no increases in existing taxes or new taxes will be required to fund the project as proposed.

There will be an increase in the City's debt service to pay for the General Obligation bonds. The debt service needs to be paid whether these bonds are used for the public transportation system, or any other capital project of the City.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 24 2002

April 19, 2002

Cheryl Soon, Director
Department of Transportation Services
650 S. King Street Third Floor
Honolulu, Hawaii 96813

Dear Ms. Soon;

On July 24, 2001, Ala Moana/Kakaako Neighborhood Board #11 passed a resolution to support the City Council Resolution 01-208. This resolution related to the changes in the BRT proposed routes through the Downtown/Kakaako Neighborhood.

The BRT route through Kakaako and the Waterfront was divided and realigned to better serve the public, as well as facilitate redevelopment of the area. Changes were suggested by the group for relocation of the BRT from Ward Avenue to Pensacola Street to reduce the impact on rush hour traffic. The group also made suggestions about the location and style of shelters to be built.

Sincerely,

Joyce Kurtz, Vice Chair
Ala Moana/Kakaako Neighborhood Board #11
Honolulu Hale
Honolulu, Hawaii 96813

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01591R

November 13, 2002

Ms. Joyce Kurtz
Vice Chair
Ala Moana/Kakaako Neighborhood Board No. 11
Neighborhood Commission
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Ms. Kurtz:

Subject: Primary Corridor Transportation Project

This is in response to your April 19, 2002 letter and your oral testimony at the Public Hearing on April 20, 2002 regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *On July 24, 2001, Ala Moana/Kakaako Neighborhood Board #11 passed a resolution to support the City Council Resolution 01-208. This resolution related to the changes in the BRT proposed routes through the Downtown/Kakaako neighborhood.*

   Response: We appreciate the Neighborhood Board's support of the project.

2. *The BRT route through Kakaako and the Waterfront was divided and realigned to better serve the public, as well as facilitate redevelopment of the area. Changes were suggested by the group for relocation of the BRT from Ward Avenue to Pensacola Street to reduce the impact on rush hour traffic. The group also made suggestions about the location and style of shelters to be built.*

   Response: Changing the BRT alignment to Pensacola and the Kakaako Makai alignment were a direct result of the working groups' efforts. Also, the FEIS, Chapter 5 includes the station concepts that resulted from the working groups' brainstorming sessions.

3. *I'm speaking for Neighborhood Board 11, Ala Moana-Kakaako Neighborhood Board. We support the resolution for the changes in the City – or in the Bus Rapid Transit system.*

   Response: Thank you for supporting the project and taking the time to attend the public hearings.

4. *We feel that the route through Kakaako and the waterfront will better serve the public and it will facilitate the redevelopment of the area.*

   Response: Comment noted. This statement is consistent with the assessment provided in the SDEIS and Final Environmental Impact Statement (FEIS).

5. *We also feel that changes made to – from Ward Avenue – Pensacola Street will better serve the people of the area and will not impact the traffic.*

   Response: We concur. This change was one of the reasons that the SDEIS was prepared. The project changes analyzed in the SDEIS reflect the working groups and other community involvement activities.

We will send you a copy of the FEIS under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DOWNTOWN NEIGHBORHOOD BOARD NO. 13
c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

October 12, 2000

Mrs. Cheryl D. Soon, Director
City and County of Honolulu
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813
fax: 523-4730

Re: Comments for October 12, 2000 Public Hearing of Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS)

Dear Mrs. Soon:

On October 5, 2000 the Downtown Neighborhood Board voted, 6 in favor, 2 abstentions, to support Bus Rapid Transit as the Locally Preferred Alternative. The vote followed almost one and a half hours of a presentation of the plan, with an emphasis on the Downtown/Kakaako/Ala Moana areas, and discussion. In addition, Board members had previously perused the MIS/DEIS.

The following items of concern were raised at the meeting and the Board would like them to be addressed.

1. All of the mass transit options, except the previous Heavy Rail system approach, provide for high volume, high frequency movement of people into the Central Urban Core in the morning and out of the area in the evening. There is little or no consideration of moving people in the opposite direction during those periods. Most buses in any of the three alternatives, but especially under the Bus Rapid Transit scheme, will bring passengers into town from east and west during the morning rush hour and take them away during the afternoon rush hour. If some of the 100,000 people expected to live in the Downtown/Kakaako area 20 years from now work out of the area, they will have few transit options, and their options certainly will not offer capacity or frequency. Setting up Transit Stations as intermediary collection points makes the problem worse because contra-flow through those stations will be very difficult, if not impossible and few, if any straight-through long distance routes (Downtown to Kapolei) will be in use during rush hours.

AR00015552

2. Routing articulated electric buses along a two-way Richards-Halekauwila corridor will cost precious parking on Richards from Merchant to Halekauwila. More significantly, this route will create an almost impossible corner where Richards now curves in a single lane around to Halekauwila, separated only by a barrier wall from the slip road from Nimitz to Halekauwila. Now all traffic on Richards, makai of the entrance to the Ocean View Building (Post Office truck parking) and on Halekauwila is one-lane except for the last 50 yards on Halekauwila before Punchbowl. The present intersection probably does not meet good traffic safety standards but was dictated by the federal demand to close lanes on Halekauwila to meet Federal Courthouse/Office Building emergency security concerns after the Oklahoma City bombing.

3. Routing east-bound electric buses along the makai curb of Ala Moana Blvd. the length of Ala Moana Regional Park will remove very many heavily-used weekend parking spaces. It will also eliminate existing drop off points for park users unloading equipment, supplies, etc. for use in the mauka portions of the park. The Park Road is too narrow at-most points for this type of loading and unloading and too far from the mauka sections of the park.

4. Block J is mentioned in the document as a park and ride site. However it is not in any of the charts. Recently, the development project for the site was canceled and there has been talk of selling the City owned property. Given the fluid status of Block J, what is the latest scenario for a park and ride on the site, and if it is not selected, what alternate sites are under consideration?

5. A'ala Park is not mentioned as one of the sites for the Iwilei Transit Center. As you know, the Board has objected to using the park site. Have you dropped A'ala Park from consideration?

6. If electric substations need to be constructed, what will they look like? How large will they be? Will they be intrusive on the community?

7. On the equity portion of the report, you calculated the economic impact on minority and low income population. Did you use the same group (minority / low income population) for the cost-effectiveness analysis or did you include a larger population?

8. In that it is very difficult to estimate the potential demand for a new product, can you elaborate how you estimated the demand for the study? Did you conduct a broad scale survey of the population or have you used other tools for estimating the demand?

Sincerely,

Lynne Matusow

Lynne Matusow, Chair

cc: Councilmember Duke Bainum, Honolulu Hale, 2nd Floor
OEQC, 235 S. Beretania St. Suite 702, Honolulu, HI 96813, Attn: Governor Cayetano
Parsons Brinckerhoff Quade and Dougles, Inc., Pacific Tower, Suite 3000, 1001 Bishop Street, Honolulu, HI 96813

AR00015553

DOWNTOWN NEIGHBORHOOD BOARD NO. 13

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

October 26, 2000

Environmental Impact Statement (MIS/DEIS) Primary Corridor Transportation Project Testimony Before the City Council Transportation Committee Regarding the Major Investment Study/Draft

On October 5, 2000 the Downtown Neighborhood Board voted, 6 in favor, 2 abstentions, to support Bus Rapid Transit as the Locally Preferred Alternative. The vote followed almost one and a half hours of a presentation of the plan, with an emphasis on the Downtown/Kakaako/Ala Moana areas, and discussion. In addition, Board members had previously perused the MIS/DEIS.

The following items of concern were raised at the meeting:

1. All of the mass transit options, except the previous Heavy Rail system approach, provide for high volume, high frequency movement of people into the Central Urban Core in the morning and out of the area in the evening. There is little or no consideration of moving people in the opposite direction during those periods. Most buses in any of the three alternatives, but especially under the Bus Rapid Transit scheme, will bring passengers into town from east and west during the morning rush hour and take them away during the afternoon rush hour. If some of the 100,000 people expected to live in the downtown/Kakaako area 20 years from now work out of the area, they will have few transit options, and their options certainly will not offer capacity or frequency. Setting up Transit Stations as intermediary collection points makes the problem worse because contra-flow through those stations will be very difficult, if not impossible and few, if any straight-through long distance routes (Downtown to Kapolei) will be in use during rush hours.

2. Routing articulated electric buses along a two-way Richards-Halekauwila corridor will cost precious parking on Richards from Merchant to Halekauwila. More significantly, this route will create an almost impossible corner where Richards now curves in a single lane around to Halekauwila, separated only by a barrier wall from the slip road from Nimitz to Halekauwila. Now all traffic on Richards, makai of the entrance to the Ocean View Building (Post Office truck parking) and on Halekauwila is one-lane except for the last 50 yards on Halekauwila before Punchbowl. The present intersection probably does not meet good traffic safety standards but was dictated by the federal demand to close lanes on Halekauwila to meet Federal Courthouse/Office Building emergency security concerns after the Oklahoma City bombing.

3. Routing east-bound electric buses along the makai curb of Ala Moana Blvd. the length of Ala Moana Regional Park will remove very many heavily-used weekend parking spaces. It will also eliminate existing drop off points for park users unloading equipment, supplies, etc. for use in the mauka portions of the park. The Park Road is too narrow at most points for this type of loading and unloading and too far from the mauka sections of the park.

4. Block J is mentioned in the document as a park and ride site. However it is not in any of the charts. Recently, the development project for the site was canceled and there has been talk of selling the City owned property. Given the fluid status of Block J, the Board does not know what the latest scenario for a park and ride on the site is and what alternate sites are under consideration.

5. A'ala Park is not mentioned as one of the sites for the Iwilei Transit Center. The Board objects to using the park site.

6. The Board is concerned about the appearance, size, and potential intrusiveness of electric substations. What will they look like? How large will they be? Will they be intrusive on the community?

7. On the equity portion of the report, the economic impact on minority and low income population was calculated. It is not clear whether the same group (minority / low income population) was used for the cost-effectiveness analysis or a larger population was used.

8. It is very difficult to estimate the potential demand for a new product. The Board is interested in how the demand for the study was estimated. Was a broad scale survey of the population conducted or were other tools used to estimate the demand?

Lynne Matusow, Chair

AR00015554

DOWNTOWN NEIGHBORHOOD BOARD NO. 13

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

May 6, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 S. King Street, 3rd Floor
Honolulu, HI 96813
via fax: 523-4730

MAY - 7 2002

Re: Primary Corridor Transportation Project, Supplemental DEIS

Dear Ms. Soon:

At its May 2, 2002 meeting, the Downtown Neighborhood Board reviewed the Supplemental DEIS for the Bus Rapid Transit System. We have the following comments:

1. The Board wishes to thank you and your team for listening to us and moving the BRT from Richards Street, makai of King Street, to a Bishop/Alakea couplet.

2. The Board asks you to consider adding a transit stop on Bishop Street, by Bank of Hawaii. Board members felt the distance from the Union Mall stop to the Queen Street stop was too far.

3. Our concerns in our comments on the DEIS in October 2000 concerning removing parking spaces along the makai curb of Ala Moana Blvd. the length of Ala Moana Regional Park have not been addressed. Many heavily-used weekend parking spaces will be lost as will existing drop off points for park users unloading equipment, supplies, etc. for use in the mauka portions of the park. The Park Road is too narrow at most points for this type of loading and unloading and too far from the mauka sections of the park. We again ask you to address this issue.

4. Page 5-24 of the document says: "Security system would be provided to protect the public and the transit system from crime and vandalism in all of the alternatives. The security system may include a combination of the following: transit system workers, special transit police, and local police." The board is concerned that new duties may be assigned to HPD and that HPD funds may be used for this purpose. At the April 24 City Council public hearing on the budget Police Chief Donohue testified that his department is already several million dollars in the hole because of mandated salary increases. Meanwhile, the crime rate is rising and the department is, we believe, understaffed. We could, for example, use more police officers in our district to deal with the increase in rave parties attended by hundreds and the problems these events cause. We can't afford to have HPD assigned the duties of transit cops unless HPD is given additional manpower and funds, preferably from transit sources, to perform these duties. We would like this addressed in the final environmental impact statement.

Sincerely,

Lynne Matusow

Lynne Matusow, Chair

cc: Genevieve Salmonson, OEQC

Oahu's Neighborhood Board System-Established 1973

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01789R

November 13, 2002

Lynne

Ms. Lynne Matusow, Chair
Downtown Neighborhood Board No. 13
Neighborhood Commission
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Ms. Matusow:

Subject: Primary Corridor Transportation Project

This responds to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your October 12 and October 26, 2000 letters, and your oral testimony at the October 26, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS. Part B responds to your May 6, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *On October 5, 2000, the Downtown Neighborhood Board voted, 6 in favor, 2 abstentions, to support Bus Rapid Transit as the Locally Preferred Alternative.*

   Response: Comment noted. It states the commenter's preference for a LPA.

2. *All of the mass transit options, except the previous Heavy Rail system approach, provide for high volume, high frequency movement of people into the Central Urban Core in the morning and out of the area in the evening. There is little or no consideration of moving people in the opposite direction during those periods. Most buses in any of the three alternatives, but especially under the Bus Rapid Transit scheme, will bring passengers into town from east end west during the morning rush hour and take them away during the afternoon rush hour. If some of the 100,000 people expected to live in the Downtown/Kakaako area 20 years from now work out of the area, they will have few transit options, and their options certainly will not offer capacity or frequency. Setting up Transit Stations as intermediary collection points makes the problem worse because contra-flow through those stations will be very difficult, if not impossible and few, if any straight-through long distance routes (Downtown to Kapolei) will be in use during rush hours.*

   Response: The In-Town BRT vehicles will operate at short headways (as often as every two minutes or less) during the morning and evening peak periods in both directions, inbound and outbound. Thus, people traveling in the off-peak direction will have greatly increased transit service in terms of capacities and headways than they do today. In addition, 4 to 8 minute headways during the non-peak-hours in both directions would offer residents throughout the In-Town BRT service area, and the Downtown/Kakaako sub area in particular, many more transit options than are available today. Additionally, there will be frequent BRT service along the H-1 corridor in the non-peak direction.

3. *Routing articulated electric buses along a two-way Richards-Halekauwila corridor will cost precious parking on Richards from Merchant to Halekauwila. Most significantly, this route will create an almost impossible corner where Richards now curves in a single lane around to Halekauwila, separated only by a barrier wall from the slip road from Nimitz to Halekauwila.*

   Response: Since the MIS/DEIS was published, the Downtown/Kakaako Working Group recommended and the City has approved a change in the In-Town BRT alignment which removes the BRT from the section of Richards Street between S. King Street and Nimitz Highway/Ala Moana Boulevard and uses Alakea Street (mauka bound) and Bishop Street (makai bound) instead.

4. *Routing east-bound electric buses along the makai curb of Ala Moana Blvd. the length of Ala Moana Regional Park will remove very many heavily used weekend parking spaces. It will also eliminate existing drop off points for park users unloading equipment, supplies, etc. for use in the mauka portions of the park. The Park Road is too narrow at most points for this type of loading and unloading and too far from the mauka sections of the park.*

   Response: It is acknowledged in the FEIS that the proposed BRT lane will eliminate 124 on-street parking spaces on Ala Moana Boulevard adjacent to Ala Moana Regional Park, which are currently available at restricted times between 10 p.m. and 4 a.m. on weekdays, and all day on weekends. This elimination of parking spaces has been identified as an unavoidable adverse impact in the FEIS.

5. *Block J is mentioned in the document as a park and ride site. However it is not in any of the charts. Recently, the development project for the site was canceled and there has been talk of selling the City owned property. Given the fluid status of Block J, what is the latest scenario for a park and ride on the site, and if it is not selected, what alternate sites are under consideration?*

   Response: Block J is no longer being considered as a park-and-ride site. This is reflected in the FEIS. The Iwilei and Middle Street Transit Center/Park-and-Rides will serve as close-in park-and-rides.

6. *A'ala Park is not mentioned as one of the sites for the Iwilei Center. As you know, the Board has objected to using the park site. Have you dropped A'ala Park from consideration?*

   Response: A'ala Park is not being considered as a location for the Iwilei Transit Center.

7. *If electric substations need to be constructed, what will they look like? How large will they be? Will they be intrusive on the community?*

   Response: If the In-Town BRT uses the embedded-plate technology (EPT), a system of traction power supply stations (TPSS) spaced between 3,000 and 6,000 feet apart will be needed, for a total of fifteen TPSS along the entire In-Town BRT alignment. Where feasible, TPSS would be located within proposed transit centers or areas where they would be as unobtrusive as possible. These stations could be located on vacant lots, lots shared with existing buildings or structures, or within existing buildings, such as parking structures.

   A typical self-contained TPSS would be a metal structure measuring approximately 35 feet long by 15 feet wide by 10 feet high. The structure would include ventilation or air conditioning for cooling the equipment, and a paved area on one side of the structure to accommodate equipment access. The exterior enclosure/building cladding of the structure would be designed to suit the

location. Landscaping/screening would be added to mitigate visual impacts if necessary. If the TPSS is located in an open area or unpaved lot, depending on the location a perimeter fence may be used, although fencing is not necessary for safety reasons.

If the TPSS is located within an existing parking structure or building where height is limited, it could be designed to fit the space provided. The equipment would be enclosed using either pre-fabricated metal or masonry walls to partition the floor to ceiling space of the structure. Dimensions would be 35 feet long by 15 feet wide with the height varying to suit the structure. Since a decision on whether to use the EPT will not be made until 2008,and the status of potential sites could change between now and then the FEIS Appendix B shows general rather than specific locations for TPSS. The substation locations have changed since the MIS/DEIS.

8. *On the equity portion of the report, you calculated the economic impact on minority and low-income population. Did you use the same group (minority / low income population) for the cost-effectiveness analysis or did you include a larger population?*

   Response: In accordance with Federal Transit Administration guidelines, the cost-effectiveness analysis is for the entire Islandwide population.

9. *In that it is very difficult to estimate the potential demand for a new product, can you elaborate how you estimated the demand for your study? Did you conduct a broad scale survey of the population or have you used other tools for estimating the demand?*

   Response: The travel forecasts for the Primary Corridor Transportation Project were developed using travel forecasting procedures developed for the Oahu Metropolitan Forecasting Model Development Project in April 1998. These procedures simulate the choices made by residents, business, and visitors regarding the nature, number, mode, time-of-day, and geographic orientation of trips that they make on a typical weekday. The procedures have been developed with data obtained in extensive surveys of Oahu households, transit riders, and air passengers. Future year forecasts reflect the population and employment forecasts that have been prepared by DBEDT and the zonal allocations that have been prepared by the City Department of Planning and Permitting.

   The travel forecasting methodology and resulting travel forecasts used for the Primary Corridor Transportation Project are described in Chapter 2 of Product 7-19 Technical Memorandum of Travel Forecasting Results (Final). The transportation plan for Oahu is described in the Oahu Metropolitan Planning Organization's report, Transportation for Oahu Plan TOP 2025, April 6, 2001.

10. *The Board on October 5 did vote to support the Bus Rapid Transit system.*

    Response: Comment noted. It states the commenter's preference for a LPA.

11. *One of the concerns that was raised that we have with it is it's going to be dedicated to bringing people in the morning and out in the afternoon. But we will have reversed commuters. And this is something we've been concerned about for years. There needs to be something to get the people going in the opposite direction at that time of day.*

    Response: See response to comment #2.

12. *There was major concern voiced about routing articulated electric buses along a two-way Richards/Halekauwila corridor. It's going to cost precious parking on Richards from Merchant to Halekauwila and it's also going to create an almost impossible corner where Richards now curves in a single lane around to Halekauwila, seperated only by a barrier wall from the slip road from Nimitz to Halekauwila. Part of this is because the Feds wanted protection for the Courthouse. And we also understand have four driveways on that block. So, there was concern that how it's going to do.*

    Response: See response to comment #3.

13. *There was concern routing east-bound electric buses along the makai curb of Ala Moana Boulevard. The length of Ala Moana Regional Park will remove very many heavily used weekend parking spaces. This is also the area where the teams use to drop off points for their equipment for games. It's what we've been told. Because the Park Road is too narrow at most points for this type of loading and unloading and it's too far from the mauka sections of the park. So, there was concern about that.*

    Response: See response to comment #4.

Part B – SDEIS Comments

14. *The Board wishes to thank you and your team for listening to us and moving the BRT from Richards Street, makai of King Street, to a Bishop/Alakea couplet.*

    Response: You are welcome and we appreciate the Neighborhood Board's participation in the project development process and look forward to working with you throughout project development and implementation.

15. *The Board asks you to consider adding a transit stop on Bishop Street, by Bank of Hawaii. Board members felt the distance from the Union Mall stop to the Queen Street stop was too far.*

    Response: The distance between the Union Mall and Bishop Street BRT stops is less than ¼ mile. The average spacing between stops on the BRT is between ¼ and ½ mile, which is based on the need to have fewer stops than do local buses to provide a faster travel time option for users.

16. *Our concerns in our comments on the DEIS in October 2000 concerning removing parking spaces along the makai curb of Ala Moana Blvd. The length of Ala Moana Regional Park have not been addressed. Many heavily-used weekend parking spaces will be lost as will existing drop off points for park users unloading equipment, supplies, etc. for use in the mauka portions of the park. The Park Road is too narrow at most points for this type of loading and unloading and too far from the mauka sections of the park. We again ask you to address this issue.*

    Response: See response to comment #4.

17. *Page 5-24 of the document says: "Security system would be provided to protect the public and the transit system from crime and vandalism in all of the alternatives. The security system may include a combination of the following: transit system workers, special transit police, and local police." The board is concerned that new duties may be assigned to HPD and that HPD funds may be used for this purpose. At the April 24 City Council public hearing on the budget Police Chief Donohue testified that his department is already several million dollars in the hole because of mandated salary increases. Meanwhile, the crime rate is rising and the department is, we believe, understaffed. We could, for example, use more police officers in our district to deal with the increase in rave parties attended by hundreds and the problems these events cause. We can't afford to have HPD assigned the duties of transit cops unless HPD is given additional manpower and funds, preferably from transit sources, to perform these duties. We would like this addressed in the final environmental impact statement.*

    Response: The O&M costs for the BRT include provision for security personnel. A decision on whether to use these funds to reimburse HPD, contract with a private security firm, or establish its own security force will be decided during the next phase during operations planning and start-up.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

WAIANAE COAST NEIGHBORHOOD BOARD NO. 24
c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

November 14, 2000

Mr. Duke Bainum
Chair, Transportation Committee
City & County of Honolulu
530 South King Street, Rm. 200
Honolulu, Hawaii 96813

Aloha Councilmember Bainum and members of the Transporation Committee:

My name is Patty Kahanamoku Teruya, and I am speaking today as a member of Wai'anae Neighborhood Board No. 24.

The residents of Leeward Oahu are anxious to see more improvements to the Transportation system. The County Express bus is helping us to get to town faster than the local bus service. But further improvements such as those proposed under the Bus Rapid Transit Alternative would get Wai'anae bus riders to town even faster.

The exclusive lanes and special ramps on the freeway will allow the buses to get past the worst traffic spots. This will make the ride faster and keep the buses on schedule. More Leeward residents will be willing to take the bus if it can get them to town faster and if the schedule is reliable.

Once in town, people need to be able to get around in the same way - faster and on a dependable schedule. The in town BRT would do just that.

Therefore, I support Resolution 00-249 to adopt the Bus Rapid Transit Alternative as the Locally Preferred Alternative.

Mahalo for your consideration and time.

Sincerely,

Patty Kahanamoku Teruya
Board Secretary
Planning & Zoning Chair

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Ms. Patty Kahanamoku Teruya
Planning and Zoning Chair
Waianae Coast Neighborhood Board No. 24
Neighborhood Commission
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Ms. Teruya:

Subject: Primary Corridor Transportation Project

This is in response to your November 14, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *The residents of Leeward Oahu are anxious to see more improvements to the Transportation system. The County Express bus is helping us to get to town faster than the local bus service. But further improvements such as those proposed under the Bus Rapid Transit Alternative would get Waianae bus riders to town even faster.*

   Response: Comment noted. The project is in agreement with this statement.

2. *The exclusive lanes and special ramps on the freeway will allow the buses to get past the worst traffic spots. This will make the ride faster and keep the buses on schedule. More Leeward residents will be willing to take the bus if it can get them to town faster and if the schedule is reliable.*

   Response: Comment noted. The project is in agreement with this statement.

3. *Once in town, people need to be able to get around in the same way – faster and on a dependable schedule. The in town BRT would do just that.*

   Response: Comment noted. The project is in agreement with this statement.

4. *Therefore, I support Resolution 00-249 to adopt the Bus Rapid Transit Alternative as the Locally Preferred Alternative.*

   Response: Comment noted. It is a statement of the commenter's preference for an LPA.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

MILILANI/WAIPIO/MELEMANU NEIGHBORHOOD BOARD NO. 25

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

RESOLUTION SUPPORTING THE SELECTION OF THE BUS RAPID TRANSIT ALTERNATIVE AS THE LOCALLY PREFERRED ALTERNATIVE FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

WHEREAS, traffic is a problem and the existing system cannot handle the current demand which leaves no room for expected growth; and

WHEREAS, the Oahu Trans 2K process has been an extensive, community-based planning effort to gather community input and to fashion a transportation program that meets the varied needs and desires of the people of Honolulu; and

WHEREAS, participants in the Oahu Trans 2K process agreed that there is not enough room to build new streets or widen existing streets on a scale that would ease traffic congestion, and that any improvements to the transportation system must foster liveable communities; and

WHEREAS, the public has emphasized through the Oahu Trans2K process that the future plan and the proposed system must be affordable without needing to resort to any additional local funding sources such as user fees or tax increases; and.

WHEREAS, residents islandwide have stated the need to increase the people-carrying capacity by providing an attractive alternative to the private automobile; to support desired development patterns; to provide a transit-based option between Central/Leeward Oahu and Honolulu's Primary Urban Center; and to improve connections between destinations with the Primary Urban Center; and

WHEREAS, the City has completed a Major Investment Study/Draft Environmental Impact Statement for the Primary Corridor Transportation Project which identifies and analyzes three transportation alternatives to meet these goals; and

WHEREAS, only the Bus Rapid Transit Alternative meets all the transportation objectives noted in the project study; and

WHEREAS, the Regional Bus Rapid Transit program would make improvements to the freeway to permit increased people-carrying capacity, greater convenience, and faster speeds in transit service between outlying areas in Central and Leeward Oahu and Downtown Honolulu; and

WHEREAS, Regional Bus Rapid Transit improvements would include an extension of the morning zipper lane on H-1 from Radford Drive to the Keehi Interchange; dedicated ramps in Kapolei, Waipahu, Kaonohi Street, Radford Drive, and Middle Street that would provide access to the express and zipper lanes and allow transit vehicles to bypass traffic congestion; an outbound zipper lane on the H-1 in the afternoon peak hours; and improvements to the Waiawa Interchange to provide for an afternoon zipper lane crossover facility; and

WHEREAS, the Bus Rapid Transit system would improve the quality of life as well as offer transportation choices for Central Oahu residents who commute to and from Downtown Honolulu; now therefore

BE IT RESOLVED that the Mililani/Waipio/Melemanu Neighborhood Board No. 25 strongly supports the selection and implementation of the Bus Rapid Transit Alternative as the Locally Preferred Alternative by the Honolulu City Council; and

BE IT FURTHER RESOLVED that the Mililani/Waipio/Melemanu Neighborhood Board No. 25 strongly encourages the Mayor and City Council to explore and implement other measures that address Oahu regional transportation problems such as congestion road pricing and management and the use of appropriate "concurrency" mechanisms that could assure that allowing additional development in Central Oahu would not exceed the ability of the regional transportation infrastructure to accommodate such development; and

BE IT FURTHER RESOLVED that copies of this resolution be transmitted to the Mayor of the City and County of Honolulu; members of the City Council; the Director of Transportation Services and Planning and Permitting of the City and County of Honolulu; the Oahu Metropolitan Planning Organization; the Leeward Oahu Transportation Management Association; the Governor; all State Legislators, the State Office of Planning; the State Department of Transportation; and all Neighborhood Boards.

Adopted unanimously at the Board's regular meeting of September 27, 2000.

Dick Poirier, Chair

Oahu's Neighborhood Board System - Established 1973

AR00015559

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Dick Poirier, Chair
Mililani/Waipio/Melemanu Neighborhood
Board No. 25
Neighborhood Commission
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Mr. Poirier:

Subject: Primary Corridor Transportation Project

This is in response to your September 27, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Be it resolved that the Mililani/Waipio/Melemanu Neighborhood Board No. 25 strongly supports the selection and implementation of the Bus Rapid Transit Alternative as the Locally Preferred Alternative by the Honolulu City Council; and*

   Response: Comment noted. It is a statement of the commenter's preference for an LPA.

2. *BE IT FURTHER RESOLVED that the Mililani/Waipio/Melemanu Neighborhood Board No. 25 strongly encourages the Mayor and City Council to explore and implement other measures that address Oahu regional transportation problems such as congestion road pricing and management and the use of appropriate "concurrency" mechanisms that could assure that allowing additional development in Central Oahu would not exceed the ability of the regional transportation infrastructure to accommodate such development...*

   Response: These measures could be further incentives for people to use transit, but are not part of the Oahu regional transportation plan (TOP 2025), of which the Refined LPA is a part.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

To: Ms Cheryl Soon
Fax: 523-4730

KALIHI-PALAMA COMMUNITY COUNCIL
1117 Kalihi Street • Honolulu, Hawaii 96819

November 6, 2000

Ms Cheryl Soon, Director
Department of Transportation Services
711 Kapiolani Boulevard
Honolulu, Hawaii 96813

Dear Ms Soon:

Re: Response to the Primary Corridor Transportation Project

On Monday, October 30, the Kalihi-Palama Community Council held a Community Forum, "Establishing Public Policy."

KPCC's goal is to ensure that the neighborhood throughout Kalihi-Palama is a positive place to live.

There were five areas of concern that were presented at the forum with the Primary Corridor Transportation Project as the major presentation and discussion.

The attendees consisted of representatives from the KPCC's geographical area which encompasses from Nuuanu Avenue to the airport and from the Koolau mountains to the sea.

The representatives in attendance were members of the Liliha Business Association, Kalihi Business Association, Liliha-Kapalama Neighborhood Board, Kalihi-Palama Neighborhood Board, Kalihi Valley Neighborhood Board, residents from Kukui Gardens, Hale Posi senior housing, Hauiki Housing, Mayor Wright Housing, Kam-Kaahumanu Housing, residents from Kalihi Palama geographical area, major service providers, schools police department, hospital, lions club, legislators, councilmembers and aides, and resource persons for the workshop.

The following comments and concerns were expressed:

1. Avoid condemnation of property;
2. Dillingham Blvd., existing five lane roadway will be reduced to two lanes, plus the turning lanes;
3. Left turns at intersections as opposed to left turns at every driveway;

AR00015560

4. Businesses need loading/unloading;
5. Allow for alternative considerations;
6. Kalihi is being forced to carry the burden of cars coming in from Leeward, 1,000 parking spaces should not be provided on Dillingham Boulevard to accommodate vehicles coming in from outlying areas.
7. What is Kalihi-Palama getting in return?
8. More emphasis should be placed on the bus system;
9. Recent change of venue from King Street to Dillingham Boulevard;
10. Need people to stop and shop in Kalihi;
11. We need to support businesses in the Kalihi area;
12. Kalihi is a bottleneck;
13. Parking at Honolulu Community College will be affected;
14. One alternative which has not be explored is the limitation on cars;
15. Preserve safety and quality of life.

The Kalihi-Palama Community Council is supportive of the Primary Corridor Transportation Project.

The Kalihi-Palama area is the most densely populated area on this island with a large population who depend on public transportation.

Safety issues of residents getting on and off the transit services as well as the impact it will have on the pedestrians, especially the elderly is of primary concern.

For further questions and information, please call Irene Fujimoto at 845-5148.

Sincerely yours,

Br. Greg O'Donnell

Brother Greg O'Donnell
1st Vice President

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD11/00-05424R
TPD11/00-05411R

Brother Greg O'Donnell, 1st Vice President
Kalihi-Palama Community Council
1117 Kaili Street
Honolulu, Hawaii 96819

Dear Brother O'Donnell:

Subject: Primary Corridor Transportation Project

This is in response to your November 6, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Avoid condemnation of property.*

   Response: The alignment and elements of the Refined Locally Preferred Alternative (LPA) will be predominately within existing roadway right-of-way so that there will be no displacements of residents or businesses required. Some businesses and residences will lose landscaping or parking in areas where the existing roadway right-of-way are not be adequate for the proposed transit alignment, but no one will have to move as a result of the right-of-way takes. A summary of estimated potential business impacts by site is provided in Final Environmental Impact Statement (FEIS) Chapter 5.

2. *Businesses need loading/unloading.*

   Response: Comment noted. DTS agrees and substantial effort has been taken to maintain loading/unloading zones for businesses.

3. *Allow for alternative considerations.*

   Response: Through the public outreach process many alternatives were analyzed and refinements made to the project in response to comments received. The alternatives considered are described in Chapter 2 of the FEIS.

4. *Kalihi is being forced to carry the burden of cars coming in from Leeward, 1,000 parking spaces should not be provided on Dillingham Boulevard to accommodate vehicles coming in from outlying areas. What is Kalihi-Palama getting in return?*

   Response: Of the 1,000 parking spaces proposed to be provided at the Middle Street Transit Center about 300 spaces will be for employees of TheBus, the remaining spaces will mainly provide people living in Kalihi and nearby areas auto access to the BRT system. Providing parking at the Middle Street Transit Center will encourage people to ride transit instead of driving down Dillingham Boulevard.

5. *More emphasis should be placed on the bus system.*

   Response: DTS continually reevaluates the level of service provided by the existing bus system and has begun to reconfigure the existing radial network of bus routes to a hub-and-spoke configuration. An integral part of the Refined LPA is completing the conversion of the bus system to a hub-and-spoke bus network and connecting it with the Regional and In-Town BRT system, thereby integrating the hub-and-spoke network with a fast, high-capacity transit system.

6. *Need people to stop and shop in Kalihi. We need to support businesses in the Kalihi area.*

   Response: The In-Town BRT alignment through Kalihi will traverse Dillingham Boulevard, from Middle Street to Keaahi Street with a Middle Street Transit Center, McNeill Street transit stop, Alakawa Transit Stop and Iwilei Transit Center. With the Refined LPA there will be many more people traveling along Dillingham Boulevard than with the No-Build Alternative. For many businesses this increased exposure to potential customers could translate into increased sales.

7. *Parking at Honolulu Community College will be affected.*

   Response: Parking at Honolulu Community College will not be affected by the Refined LPA. The concern expressed in the comment may be referring to the previous conceptual plan to construct a parking structure on HCC property, and to place a traction power supply station (TPSS) within the structure. However, the TPSS has been relocated and no parking structure is currently proposed as a part of this project.

8. *One alternative which has not be [en] explored is the limitation on cars.*

   Response: DTS does not have the authority to limit cars on the island.

9. *Preserve safety and quality of life.*

   Response: The Refined LPA preserves and improves the quality of life of Oahu's residents by improving transportation linkages within the Primary Corridor and between Kapolei and the Urban Core. System security planning has been part of overall system design.

10. *The Kalihi-Palama area is the most densely populated area on this island with a large population who depend on public transportation.*

    Response: The Refined LPA will improve transit service for the Kalihi-Palama community.

11. *Safety issues of residents getting on and off the transit services as well as the impact it will have on the pedestrians, especially the elderly is of primary concern.*

    Response: The design of transit stops located in the median includes features such as protective railings separating the platforms from the adjacent traffic lane and to discourage transit patrons from exiting the platform except at designated locations. Traffic signals and cross walks will be provided at BRT stations to allow pedestrians to safely cross the street. It will be easier for the elderly to use the median stops on Dillingham Boulevard since they will only have to cross half the street width rather than the entire street when going to/or from the transit stops.

We will send you a copy of the FEIS under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

WAIPAHU COMMUNITY ASSOCIATION
94-440A Mokuola Street, Waipahu, Hawaii 96797

19 October 2000

Memorandum to Hearing Officer, Special City Council
Transportation Committee

I am C. O. "Andy" Anderson, President of the Waipahu Community Association and Waipahu Resident presenting testimony in favor of Alternative No. 3, the bus rapid transit (BRT) which expands on the hub-and-spoke network to provide regional BRT service from Kapolei to Kalihi.

Our organization has not selected any of the transportation options currently under consideration, we have supported the hub and spoke effort and supported the rail system that was under consideration in the past. There is a need for additional and improved public transportion

O'ahu must select the most ambitious transportation alternative currently offered to assure adequate transport options for present and future labor force workers. The recent expansion of bus service alternatives and addition of express service to and from Waipahu are a positive step. Further expansion, as currently proposed, is a must to assure transportation for the visitor industry labor force, most of whom work in the primary urban center and most commute from Ewa, Ewa Beach and Waipahu.

Thank you for accepting my testimony on this important matter.

Very Truly Yours,

C. O. "Andy" Anderson
President

cc: Neighborhood Board No. 22, Chair Yamaguchi; file.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. C. O. "Andy" Anderson, President
Waipahu Community Association
94-440A Mokuola Street
Waipahu, Hawaii 96797

Dear Mr. Anderson:

Subject: Primary Corridor Transportation Project

This is in response to your October 19, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I am C. O. "Andy" Anderson, President of the Waipahu Community Association and Waipahu Resident presenting testimony in favor of Alternative No. 3, the bus rapid transit (BRT) which expands on the hub-and-spoke network to provide regional BRT service from Kapolei to Kalihi.*

   Response: Comment noted. It is a statement of the commenter's preference for an LPA.

2. *Our organization has not selected any of the transportation options currently under consideration, we have supported the hub and spoke effort and supported the rail system that was under consideration in the past. There is a need for additional and improved public transportation.*

   Response: Comment noted. It is statement of opinion.

3. *The recent expansion of bus service alternatives and addition of express service to and from Waipahu are a positive step. Further expansion, as currently proposed, is a must to assure transportation for the visitor industry labor force, most of whom work in the primary urban center and most commute from Ewa Beach and Waipahu.*

   Response: The Refined Locally Preferred Alternative will provide further improvement to the connections requested.

We will send you a copy of the Final Environmental Impact Statement (FEIS) under separate cover. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Chapter 7.0

Comments and Responses
Organizations

AMERICAN PUBLIC WORKS ASSOCIATION HAWAII CHAPTER

April 19, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Subject: Supplemental Environmental Impact Statement
Bus Rapid Transit System
Public Hearing – Hawaii Convention Center Room 319 A & B
Saturday, April 20, 2002

Aloha Ms. Soon,

We are in support of the Supplemental EIS for the Bus Rapid Transit System. As the Chapter Delegate for the American Public Works Association Hawaii Chapter, a member of the Procurement Committee and Committee of Fellows for the American Council of Engineering Companies, I have seen mass transit projects developed throughout our fine country and understand the critical importance of development of a mass transit program for Hawaii.

We are in full support of the development of the Bus Rapid Transit System for Hawaii and understand the critical importance of developing dedicated corridors for the system to operate efficiently. We urge you and the City and County of Honolulu to move forward with the program and to proactively move toward a solution to our growing traffic problems on Oahu.

Our organization support the use of qualification based selection procedures for the future selection of design professionals for any design services for subject project and to ensure the quality of the final product. Please feel to call upon us for any assistance in these matters.

Very Truly Yours,
American Public Works Association, Hawaii Chapter

Lester H. Fukuda, P. E., FACEC
Chapter Delegate

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01554R

November 13, 2002

Mr. Lester Fukuda
Chapter Delegate
American Public Works Association, Hawaii Chapter
c/o 1132 Bishop Street, Suite 1003
Honolulu, Hawaii 96813

Dear Mr. Fukuda:

Subject: Primary Corridor Transportation Project

This is in response to your April 19, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *We are in support of the Supplemental EIS for the Bus Rapid Transit System. As the Chapter Delegate for the American Public Works Association Hawaii Chapter, a member of the Procurement Committee and Committee of Fellows for the American Council of Engineering Companies, I have seen mass transit projects developed throughout our fine country and understand the critical importance of development of a mass transit program for Hawaii.*

   Response: We appreciate your support for the Primary Transportation Corridor Project.

2. *We are in full support of the development of the Bus Rapid Transit System for Hawaii and understand the critical importance of developing dedicated corridors for the system to operate efficiently. We urge you and the City and County of Honolulu to move forward with the program and to proactively move toward a solution to our growing traffic problems on Oahu.*

   Response: Thank you for supporting the refined bus rapid transit alternative.

3. *Our organization supports the use of qualification based selection procedures for the future selection of design professionals for any design services for subject project and to ensure the quality of the final product. Please feel to call upon us for any assistance in these matters.*

   Response: Qualification based selection procedures will be used for procuring future design services. Thank you for your offer of assistance.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

BUILDING INDUSTRY ASSOCIATION
OF HAWAII

October 12, 2000

Cheryl Soon, Director
Department of Transportation Services, Testimony on the Primary Urban Corridor Transportation Project
Thursday October 12, 2000 6:30 p.m. hearing
Neal Blaisdell Center Hawaii Room

Director Soon:

Subject: Primary Urban Corridor Transportation Project

My name is Craig Watase, Building Industry Association of Hawaii Government Affairs Committee Vice Chair, and I would like to take this opportunity to offer our association's comments on the Primary Urban Corridor Transportation Project.

The Building Industry Association of Hawaii (BIA), one of Hawaii's largest trade associations, serves about 500 member companies, employing approximately 15,000 people. Its membership includes general contractors, specialty contractors, developers, suppliers, realtors, architects, financial institutions, attorneys and numerous other businesses, all related to the building industry.

The proposal presents three alternatives, no-build, reconfiguration of the bus system and Bus Rapid Transit. BIA has concerns that:

1. Rail transit alternatives should have been explored. Information on higher-capacity alternatives would have ensured that all of the best options were considered.

2. The requirement "any improvements be affordable", should not preclude Trans 2K from considering more comprehensive solutions. "Affordability" needs to include not only cost, but revenues, federal assistance and increased community productivity and quality of life measured over time.

3. Transportation solutions need to be evaluated over a longer period. Twenty five years may be too short and the City might want to consider investing more for a 50- or 75-year transportation solution.

Thank you for this opportunity to offer my comments.

Sincerely,

Craig Watase
Vice Chair
Government Affairs

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Craig Watase, Vice Chair
Government Affairs
Building Industry Association of Hawaii
1727 Dillingham Boulevard
Honolulu, Hawaii 96819

Dear Mr. Watase:

Subject: Primary Corridor Transportation Project

This is in response to your October 12, 2000 letter and your oral testimony at the formal Public Hearing regarding comments on the MIS/DEIS.

1. *Rail transit alternatives should have been explored. Information on higher-capacity alternatives would have ensured that all of the best options were considered.*

   Response: Grade-separated rail transit alternatives have been studied in the past and were rejected by the public and City Council early on in the PCTP. An at-grade light rail transit alternative was studied as part of the MIS/DEIS and was dropped after it was determined that it was substantially more costly than the BRT Alternative while offering no real advantages.

2. *The requirement "any improvements be affordable", should not preclude Trans 2K from considering more comprehensive solutions. "Affordability" needs to include not only cost, but revenues, federal assistance and increased community productivity and quality of life measured over time.*

   Response: Although it would be ideal not to be constrained financially, major sources of funding for the Primary Corridor Transportation Project are federal and local funds which are limited. Therefore, we do have to find "affordable" solutions. City funds by City Council directive were not to include a tax increase.

   The financial plan does consider federal assistance and future economic growth. However, to be fiscally responsible the financial plan assumes a conservative economic growth rate.

3. *Transportation solutions need to be evaluated over a longer period. Twenty-five years may be too short and the City might want to consider investing more for a 50- or 75-year transportation solution.*

   Response: The 20- to 25-year time horizon is set by the Federal Transit Administration. It provides a balance between taking long-term effects into account while reflecting what can be reasonably forecasted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

C.A.R.E.

Citizens Advocating Responsible Education

October 5, 2000

Dear Members of the Special Transportation Committee,

Thank you for providing this opportunity to offer opinions and ask questions about the new proposed Primary Corridor Transportation Project.

On Monday, October 2, 2000, I voiced my original concern that taking away existing public lanes from busy streets such as Kapiolani Blvd., Dillingham Blvd., or Ward Ave. > will only create bottlenecks. These restrictions to existing traffic flow patterns will create traffic jams and add to existing commuting times for people using automobiles, mopeds, motorcycles, school buses, tour buses, trucks, and vans. People who use existing bus routes on these same roads that are to be shared with BRT vehicles, or on roads near the new bottlenecks - will also find new delays.

Before I prepare a final written testimony against this illogical plan, I would like to have some specific answers to questions raised Monday evening by several concerned citizens.

1. How many bottlenecks (places where existing lanes are squeezed down – usually by losing two traffic lanes - to make room for the new BRT lanes and platforms) will be created by the complete BRT system?

2. What are the locations of each of these bottlenecks?

3. How much extra commuting time will be added to drivers and passengers of automobiles, mopeds, motorcycles, school buses, tour buses, trucks, and vans; and bus riders who use the existing city bus routes – by each of these new bottlenecks?

4. How many lane-miles of existing public roads will be taken out of existing service, if the BRT is adopted? (For example, if two lanes of Kapiolani Boulevard are to be given to exclusive BRT use and no new lanes are taken from parking lanes, then for each mile of Kapiolani Boulevard given to the BRT – two lane miles would be taken out of service.)

5. How frequently do you expect that frustrated motorists caught in the gridlock created by these new bottlenecks - will cross over into the open BRT lanes on these congested streets?

Phone & Fax 808-735-8049 E-mail wallyb41@aol.com
1235 Center Street, Honolulu, Hawaii 96816

6. Have you taken into consideration that vehicles that enter the new BRT lanes either by choice or by accident, may have difficulty getting back into the jammed public lanes?

7. Have you calculated the delays that such inevitable intrusions into the BRT lanes either by choice or by accident - into the projected expected savings in commuting times for BRT users?

8. Have you expected an increase in the noise level from horn honking that would accompany the gridlock created by all the new bottlenecks?

9. Have you expected an increase in road rage and other manifestations of frustration with increased traffic jams for automobiles, motorcycles, trucks, vans and other vehicles?

10. How many parking spaces will be lost to the new BRT system?

11. It was stated Monday that regular city buses will share the new curbside BRT lanes, but what time savings will remain if new BRT vehicles find the adjacent lane backed up and cannot pass the slower local busses that must stop in these new BRT lanes to accept and discharge passengers at the many bus stops that are along the BRT routes?

12. Have you calculated the negative impact on our ability to attract visitors by increasing noisy traffic jams and decreasing the amount of parking spaces (as many tourists also rent automobiles or mopeds or will get stuck in regular buses caught in the regular traffic lanes that will be snarled in gridlock if this plan is ever adopted)?

13. Have you considered coning off the proposed BRT lanes on these busy streets temporarily for one week, to observe the impact on the rest of the traffic? When will this trial to test this hypothesis begin? (as I hope the City Council will soon adopt this scientific approach before money is wasted on an Environmental Impact Statement that will not be needed)

Sincerely yours,

Wally Bachman

Wally Bachman
Science Advisor
wallyb41@aol.com

C.A.R.E.

Citizens Advocating Responsible Education

October 12, 2000

Dear Members of the EIS Committee,

Thank you for providing this opportunity to offer opinions about the Draft Environmental Impact Statement (DEIS) for the Primary Corridor Transportation Project for Honolulu.

On Monday, October 2, 2000, I voiced my original concern that taking away existing public lanes from busy streets such as Kapiolani Blvd., Dillingham Blvd., or Ward Ave. > will only create bottlenecks. These restrictions to existing traffic flow patterns will create traffic jams and add to existing commuting times for people using automobiles, mopeds, motorcycles, school buses, tour buses, trucks, and vans. People who use existing bus routes on these same roads that are to be shared with BRT vehicles, or on roads near the new bottlenecks - will also find new delays.

On Oct. 11, I talked with Toru Hamayasu about the proposed plan. The major bottleneck on Kapiolani Blvd. starts on Atkinson Drive (where two lanes in the Ewa direction will be lost if we adopt the CityTram or BRT). Traffic will therefore back up in front of the new Convention Center.

Some of the other major bottlenecks formed by the proposed CityTram include University Avenue above Sinclair Circle and also on the corner with Kapiolani Blvd.

Ward Ave. and King St. will get find new delays, as will travelers along Ala Moana Blvd., Kuhio Ave., and Richards Street - as all will lose lanes now used by all vehicles, when they become restricted by prohibiting vehicles that use these busy lanes now.

The most serious gridlock will probably develop along Dillingham Blvd. In front of HCC, the plan now has only one lane left in each direction for all other vehicle traffic - including the local city buses, which must make regular stops in the right hand lane (as the proposed CityTram takes up the two center lanes). Obviously, these single lanes in each direction will back up.

The loss of many miles of heavily used public traffic lanes for the proposed CityTram also will lead to less people being able to use the existing roads even if it works as planned, because most of the time the new CityTram lanes will be empty. During rush hour, they are now filled with people in various vehicles that

are still moving. An empty lane obviously does not increase the total number of people in motion, and it is planned to be empty most of the time – if it works according to plan.

Unfortunately, another major fault of this design, is that it does not take into account human nature. Without any physical barrier to separate the lanes, some people will cross over into the open transit lanes – particularly if the remaining public lanes get all jammed up. Accidents and mistakes by people not familiar with this new system will also put non-transit vehicles in the CityTram lanes.

UNFORTUNATELY, ONCE THEY GET INTO THIS CENTER AISLE – THEY MAY HAVE DIFFICULTY GETTING BACK OUT (PARTICULARLY WHEN THE ADJACENT LANES ARE ALL JAMMED UP AT RUSH HOUR). THE RESULT IS ***GRIDLOCK***!

GRIDLOCK will also significantly increase the frequency of other unwanted behaviors including horn honking and road rage. It will also impede or prevent emergency and police vehicles from doing their jobs.

There will also be 947 existing parking spaces lost to the new CityTram lanes, making the already scarce parking spaces even more difficult to find.

Before the City wastes considerably more money on an EIS, I believe they should try to cone off the proposed BRT lanes on these busy streets temporarily for one week, to observe the impact on the rest of the traffic.

I hope the City Council will soon adopt this scientific approach before money is wasted on an Environmental Impact Statement that will not be needed if this hypothesis is correct, as nobody in their right mind wants ***GRIDLOCK***.

As one citizen remarked, "The most expensive system is one that does not work." I believe the level of appropriation must be raised in order to come up with a system that actually moves more people during peak hours by providing new dedicated lanes all along the route – as the BRT proposal to eliminate many miles of existing lanes will only make things much worse by increasing the existing travel times because of traffic jams and ***GRIDLOCK***.

Sincerely yours,

Wally Bachman

Wally Bachman
Phone & Fax 808-735-8049 E-mail wallyb41@aol.com
1235 Center Street, Honolulu, Hawaii 96816

C.A.R.E.

Citizens Advocating Responsible Education

October 26, 2000

Dear Members of the Special Transportation Committee,

Thank you for providing this opportunity to again offer opinions and ask questions about the new proposed Primary Corridor Transportation Project.

Today, the Honolulu Advertiser printed my letter entitled "New bus plan will lead to city gridlock", and I am including it today as the main focus of my testimony.

Beyond the gridlock predicted for rush hours, there is another error in the calculations of increased carrying capacity under the new system - even if everybody were to somehow stay out of the new "BRT only" lanes.

At the present time, these lanes are full of various vehicles – particularly during the morning and evening rush hours. According to the proposed plan, most of the time the new BRT lanes would be empty. A sparsely used lane obviously does not increase the total number of people in motion – unless you are only counting bus riders and forgetting the rest of the people who use these busy streets.

My question is, where can one find the "Worst Case Scenario" section of the Draft Environmental Impact Statement? It seems that this document avoids discussing relevant problems that happen each day during rush hour.

With the great number of negative consequences that would arise if gridlock regularly entangles our busiest roads, I again repeat C.A.R.E.'s request that you cone off the proposed BRT lanes on these busy streets temporarily for one week. This will enable us to observe the impact on the rest of the traffic and test whether this plan is even possible.

I hope the City Council will soon adopt this scientific approach before money is wasted on an Environmental Impact Statement that will not be needed, if test results reveal this vision to be true.

Sincerely yours,

Wally Bachman

Wally Bachman
Science Advisor
Phone & Fax 808-735-8049 E-mail wallyb41@aol.com
1235 Center Street, Honolulu, Hawaii 96816

Misc. Com. No. 1304

ALREADY ON FAST TRACK

New bus plan will lead to city gridlock

Larry Dove's Oct. 20 letter, "Drivers are ignoring diamond lane on H-1," points out a fundamental flaw of the proposed "in-town BRT" system, now being put on the fast track at a series of public meetings.

This new bus rapid transit system is the most expensive part of the Primary Corridor Transportation Project for Honolulu and depends on all drivers staying out of new restricted "BRT only" lanes on many of our busiest streets.

This project is posed as three alternatives and costs over $7 million to create plans as far as the draft environmental impact statement (which is still open for written public comment until Nov. 6).

The public presentations have heavily favored the BRT choice over the no-build and transportation system management options. Unfortunately, this "bus rapid transit" will be "bus riders trapped" in gridlock (along with those squeezed into the remaining lanes) for the most expensive in-town segment.

This plan is based on the notion that traffic flow will become more efficient by taking the two center lanes from busily traveled thoroughfares such as Dillingham, Kapi'olani and Ward. These center lanes will then be supposedly reserved for an unspecified BRT bus. The new "express" BRT stops will also be in the middle of these busy streets.

On the other hand, local buses will continue in the right lanes, making their customary frequent stops, but with the BRT in place, there will often be no room to pass them.

Unfortunately, the city planners also seem to assume that everybody will stay in line as traffic backs up behind the bottlenecks and in the more restricted left-turn lanes too.

It would seem obvious that some fraction of the people stuck in traffic will pull into the relatively open center lanes either from frustration or by mistake.

Once in the restricted center lanes, they will have difficulty getting back — as they are surrounded by traffic and will probably have to proceed to the next intersection to get out.

These new BRT intersections will be quite a mess, as the major savings in time anticipated (without delays) depend on the BRT vehicles being able to turn the lights green when they actually reach the intersection.

Any accidents that could easily occur at any of the many BRT intersections can again cause gridlock, which will spread like cancer to nearby streets — choking off the essential flow of people and products vital to our economy. Emergency and police vehicles will also face significant new problems.

City planners should test their assumption that the rest of the traffic will continue to flow after losing two lanes of many of our most traveled roads — by temporarily coning them off for a week.

This scientific approach is not unreasonable, as we will lose even more lanes during the construction period if this expensive project proceeds. Such a test may also be easily called off after a day or two, if this prediction is accurate.

Before we invest more public funds in the proposed BRT that will make conditions during morning and evening rush hour unbearable, I invite you to bring your opinions to the City Council hearing on these proposed changes, today at 6:30 p.m. at City Hall.

Wally Bachman
Science Adviser
Citizens Advocating Responsible Education

C.A.R.E.

Citizens Advocating Responsible Education

November 14, 2000

Dear Members of the Special Transportation Committee

I urge you to reject Resolution 00-249 because it includes support for the most expensive part of Honolulu's transportation plan - the "In Town BRT".

I hope you have read my previous testimony of Oct. 26 and Letter to the Editor of the Honolulu Advertiser of the same day entitled "New bus plan will lead to city gridlock". Here is a summary of my previous testimonies:

First, the assumption that you can increase the carrying capacity in the primary transportation corridor by taking two lanes out of general public use on our busiest thoroughfares defies the laws of physics - as a lane that is usually empty cannot carry more people than one that is quite full, but still moving now during rush hours.

Secondly, traffic jams will be caused by having busses in four of the six lanes of Kapiolani and Dillingham Blvds. With the In Town BRT plan, the right lanes will still have local city busses in them, making their regular frequent stops - so that lane often does not move.

Then, what is now the middle lane becomes the left-turn lane. This will have a terrible impact on traffic because that central lane is now the only through lane. When the BRT gobbles up the two middle lanes, the through lane will be eliminated - as it becomes the new left-turn lane. Of course, traffic will back-up because it will become even more difficult to make a left turn with the BRT and its stations - in the middle of the street.

To find more evidence of this projected gridlock, I went through the two inches of documents and drawings that comprise the Draft EIS for this controversial project.

I was looking for the number of vehicles now using the roads where the new In Town BRT is supposed to go. While I was expecting a lane by lane, hour by hour tabulation - I was surprised to find no detailed data of existing traffic patterns on any of the major streets where the In Town BRT is now being planned.

Measuring the flow of vehicles now using these very busy lanes on Kapiolani, Dillingham, Ward and other busy thoroughfares would be the logical point to start a realistic environmental impact analysis.

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Without any such measurement, the number of vehicles that will be displaced when turning the lanes over to the proposed BRT remains unknown. They all seem to magically vanish - as no serious mention of what happens to them can be found in this unscientific report.

The number of displaced vehicles is central to a true Environmental Impact Statement. By failing to count them and then ignoring the impact that these displaced vehicles will have on the surrounding streets and on the freeways - a completely distorted picture has been presented in the Draft EIS.

Thus, the entire Draft EIS report is just unrealistically optimistic conjecture that overlooks the likely problems that will arise through the creation of major new bottlenecks and simultaneously eliminating lanes now being used by the general public.

Resolution 00-249 supports this grossly misleading Draft EIS and should be defeated before we waste more public funds on a plan that has not done its basic background measurements. It also has not even considered the likely problems to arise when thousands of vehicles are evicted from our busiest roads - and forced onto other already crowded streets and freeways.

If you proceed with this illogical plan, you will find that BRT really does stand for "Bus Riders Trapped" in gridlock!

Sincerely yours,

Wally Bachman

Wally Bachman
Science Advisor
wallyb41@aol.com

C.A.R.E.

Citizens Advocating Responsible Education

November 30, 2000

Toru Hamayasu
Chief Transportation Planning Division
711 Kapiolani Blvd., Suite 300
Honolulu, HI 96813

Dear Toru,

Thank you very much for working late on the day before Thanksgiving and returning my calls to the Transportation Office for more specific information about the traffic flow rates on Kapiolani Blvd. - particularly the section between Ward Ave. and Atkinson Drive, where the BRT will take the two center lanes if it goes according to the present plan. This information was also requested by Richard Port at the conclusion of his testimony before the City Transportation Committee on Nov. 14, 2000.

I am enclosing a copy of the information that you conveyed to me during that conversation for your review for correctness. I would also like to know if this data appears in the Draft Environmental Impact Statement for the BRT, as I have a copy of the CD version that was distributed by your Department.

I believe this data is illogical because 1,600 vehicles per hour cannot just vanish from Kapiolani Blvd. (near the intersection with Pilkoi - PM Peak) without having a significant environmental impact on the traffic flow - yet I could find no mention of these displaced vehicles in the Draft EIS. (4,000 vehicles/hour under the "No Build" Plan and 2,400 vehicles/hour with the BRT) Could you point out where this very significant problem of vehicle displacement is discussed in the Draft EIS?

Secondly, I still believe that this 1,600 vehicles per hour evicted from Kapiolani Blvd. figure derived from the data that you supplied to me on Nov. 22, 2000 - also underestimates the actual number to be displaced by the BRT because your data also assumes that the two lanes that are left for the general public to use can carry 1,200 vehicles per hour each. This also assumes that the existing city buses will still travel and stop in the right hand lanes, which will be shared with the general public.

Unfortunately, these regular city buses also back up traffic behind them whenever they stop to accept or discharge their passengers. If any turns are to be allowed, the left lane will also back up when people must wait for a clear path to make their left turns.

This data is unscientific because it has not been shown that two lanes can carry 2,400 vehicles per hour during peak periods. Because some of these vehicles will be city buses making their regular stops – this figure is unrealistic, and should be put to a test by coning off the BRT lanes temporarily to see how it will affect the remaining two lanes on Kapiolani Blvd.

I also thank you for providing me with a copy of the MEMORANDUM from Kenneth Banao on the subject of TRAFFIC COUNTS ON KAPIOLANI BOULEVARD just before the City Council Meeting began yesterday. The data of 2218 vehicles per hour in the 4 East Bound (Makai) Lanes for the P.M. Peak Hour was dated 12/24/94 – almost six years ago (555 vehicles/hr/lane). Did you find anything more recent?

I am also looking for some similar traffic counts and projections for Ala Moana Blvd. near Piikoi, to help gauge the impact that the second CityTram spur will have on traffic flow patterns in that area.

cc. Richard Port

Sincerely yours,

Wally Bachman

Wally Bachman
Science Advisor
C.A.R.E.

Summary of Traffic Flow Information received from Toru Hamayasu, Chief of Transportation Planning on Nov. 22, 2000 at 6:15 PM via telephone conversation:

KAPIOLANI BLVD. PEAK RATES (vehicles/hour)

MORNING PEAK

INTERSECTION	PLAN	RATE	# LANES & RATE/LANE
WARD	NO BUILD	2,700	3 950
	BRT	1,900	2 950
PIIKOI	NO BUILD	3,700	3 1,233
	BRT	2,500	2 1,250
KALAKAUA	NO BUILD	3,500	4 875
	BRT	3,600	4 900
WARD	NO BUILD	3,400	4 850
	BRT	2,500	2 1,250
PIIKOI	NO BUILD	4,000	4 1,000
	BRT	2,400	2 1,200
KALAKAUA	NO BUILD	3,400	4 850
	BRT	3,800	4 950

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Wally Bachman, Science Advisor
Citizens Advocating Responsible Education
1235 Center Street
Honolulu, Hawaii 96816

Dear Mr. Bachman:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your October 5, 2000 letter, your oral testimony at the October 5, 2000 Special Transportation Committee Meeting, your oral testimony at the formal public hearing, your October 12, 2000 letter, your October 26, 2000 letter, your Letter to the Editor entitled, "New bus plan will lead to city gridlock" published October 26, 2000 in The Honolulu Advertiser, your October 26, 2000 oral testimony at the Special Transportation Committee Meeting, your November 14, 2000 letter, your oral testimony at the November 14, 2000 Special Transportation Committee Meeting, and your November 30, 2000 letter regarding the MIS/DEIS. Part B responds to your oral testimony at the April 20, 2002 public hearing regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *How many bottlenecks (pieces where existing lanes are squeezed down – usually by losing two traffic lanes to make room for the new BRT lanes and platforms) will be created by the complete BRT system?*

   Response: See response to comment #4.

2. *What are the locations of each of these bottlenecks?*

   Response: See response to comment #4.

3. *How much extra commuting time will be added to drivers and passengers of automobiles, mopeds, motorcycles, school buses, tour buses, trucks, and vans; and bus riders who use the existing city bus routes – by each of these new bottlenecks?*

   Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

4. *How many lane-miles of existing public roads will be taken out of existing service, if the BRT is adopted? (For example, if two lanes of Kapiolani Boulevard are to be given to exclusive BRT use and no new lanes are taken from parking lanes, then for each mile of Kapiolani Boulevard given to the BRT, two lane miles would be taken out of service.)*

   Response: Utilizing lanes for the BRT does not "take them out of service." It permits these lanes to carry a greater number of people than if the lanes were not converted. The distribution of lane miles would be as follows for the In-Town BRT: 10.0 for exclusive BRT use, 4.1 for shared use with other transit vehicles including private buses, and 2.6 shared use with right-turning vehicles. Along the remaining portions of the alignment (8.9 lane miles) the BRT would operate in mixed traffic. There are only 2.5 route miles (5.0 lane miles) where there would be two general-purpose traffic lanes on the same segment converted to exclusive BRT use. These are on Dillingham Boulevard, where street widening is proposed; and on Pensacola Street and University Avenue, where parking on both sides of the street would be removed to offset the lane conversions.

5. *How frequently do you expect that frustrated motorists caught in the gridlock created by these new bottlenecks will cross over into the open BRT lanes on these congested streets?*

   Response: Although certainly not gridlock, congestion is forecast to occur even without the BRT lanes, so the system will include enforcement mechanisms to discourage private vehicles from entering BRT-priority lanes. Enforcement mechanisms will be in the form of a fine for entering a BRT-exclusive lane, similar to the fines imposed on the existing HOV lanes.

6. *Have you taken into consideration that vehicles that enter the new BRT lanes either by choice or by accident may have difficulty getting back into the jammed public lanes?*

   Response: There will be no physical barriers between the BRT exclusive lanes and mixed traffic lanes. Therefore, if a motorist enters the lane by accident they will be able to move from an exclusive BRT lane to an adjacent lane when there is a break in traffic in the adjacent lane.

7. *Have you calculated the delays that such inevitable intrusions into the BRT lanes either by choice or by accident – into the projected expected savings in commuting times for BRT users?*

   Response: If properly enforced, such intrusions, if they occur at all, will be rare and random events that will have a very limited impact on overall system delays and projected time savings for BRT passengers.

8. *Have you expected an increase in the noise level from horn honking that would accompany the gridlock created by all the new bottlenecks?*

   Response: See response to comment #3.

9. *Have you expected an increase in road rage and other manifestations of frustration with increased traffic jams for automobiles, motorcycles, trucks, vans and other vehicles?*

   Response: See response to comment #3.

10. *How many parking spaces will be lost to the new BRT system?*

    Response: The In-Town BRT will affect approximately 373 unrestricted and 533 restricted on-street parking spaces, as disclosed in Section 4.4 of the Final EIS. Unrestricted spaces are currently available during peak and off-peak hours; restricted spaces are available only during designated off-peak periods. Some off-street parking spaces will also be affected in various places along the alignment. These partial displacements are described in detail in Section 5.2 of the Final EIS.

11. *It was stated Monday that regular city buses will share the new curbside BRT lanes, but what time savings will remain if new BRT vehicles find the adjacent lane backed up and cannot pass the slower local buses that must stop in these new BRT lanes to accept and discharge passengers at the many bus stops that are along the BRT routes?*

    Response: The two candidate technologies, embedded plate and hybrid propulsion, both provide the flexibility to operate outside of the designated BRT lanes and therefore can maneuver around local buses and right-turning traffic, if necessary. On Kuhio Avenue in Waikiki the In-Town BRT will share the priority lanes with local buses and private buses. To accommodate the local transit service without blocking the transit lane, bus pullouts will be provided so that local buses and private buses can pull out of the bus lane to stop.

12. *Have you calculated the negative impact on our ability to attract visitors by increasing noisy traffic jams and decreasing the amount of parking spaces (as many tourists also rent automobiles or mopeds or will get stuck in regular buses caught in the regular traffic lanes that will be snarled in gridlock if this plan is ever adopted)?*

    Response: See response to comment #3.

13. *Have you considered coning off the proposed BRT lanes on these busy streets temporarily for one week, to observe the impact on the rest of the traffic? When will this trial to test this hypothesis begin?*

    Response: The proposed BRT system is based on ridership experience of the City's existing bus services, including the recently implemented express bus services that use much of the proposed BRT alignment, forecasts of BRT and local bus ridership using regional travel forecasting models, and input received at hundreds of public outreach meetings. A test without all features of the BRT system in place (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-floor vehicles with level boarding through multiple doors and pre-payment of fares) would be misleading and not a true test of the system. For example, the project proposes to completely reconstruct Dillingham Boulevard through the Kalihi area to provide significant pedestrian amenities to facilitate access to BRT stations, as well as building new BRT stations and exclusive lanes in the center of the roadway. Without such major reconstruction, it would not be possible to provide the substantial time savings for transit riders through this corridor that would be offered by the BRT. Most importantly, potential new riders would not likely perceive the demonstration service as permanent and would not be induced to change their travel mode.

14. *What we need is light rail. But that's already ruled out. So, let's look at this new system that's been offered. The two most important point is, one, you're going to have more noise from honking, from people stuck in the traffic, and…*

    Response: See response to comment #3.

15. *Secondly, the last important point I have is that I'd like you to consider coning off the proposed BRT lanes on these busy streets temporarily for one week to observe the impact on the rest of the traffic and adopt the scientific approach which is to try it out. I mean, every day you go out here and you change the traffic pattern on Kapiolani three times. It's three different patterns out there. It wouldn't take much to cone off these things with some of those cones and see what happens. You could try some City buses running up and down if you'd like or just leave it empty. I'm worried about the impacts on the rest of the traffic. I think it's all going to back up and it's going to cause gridlock.*

    Response: See response to comment #13.

16. *On Monday, October 2, I voiced my original concern in that taking away existing public lanes from busy streets, such as Kapiolani Boulevard, Dillingham Boulevard and Ward Avenue, will only create bottlenecks.*

    Response: See response to comment #3.

17. *These restrictions to existing traffic flow patterns – I think Richard Port talked about it, and I also agree with Dennis and Craig, who said that the light rail alternative would be much better.*

    Response: Light rail unless grade separated would have greater impacts to general purpose traffic than the BRT since it lacks the flexibility to go around blockages along the alignment. If by "light rail" you are referring to elevated guideway transit, it was determined at the outset of the PCTP that the public was not in favor of elevated transit due to its high costs and visual impacts.

18. *And one of the big bottlenecks will be on Kapiolani, right in front of the Convention Center, where the two new lanes start; also, on University Avenue, above Sinclair Circle, it should back up University Avenue; also, on the bottom of University Avenue, the corner with Kapiolani Boulevard, as people encounter the new BRT lanes.*

    Response: The Refined LPA as described in the FEIS contains modifications to the BRT corridor configurations that were initially proposed in the MIS/DEIS. Many of these modifications came about through discussions with the communities affected. As a result of these inputs, the UH-Manoa Branch of the In-Town BRT was modified to run in mixed-flow mode on Kapiolani Boulevard from Kaheke Street to University Avenue. This modification allowed contra-flow operation to continue on Kapiolani Boulevard, east of Atkinson Drive. On University Avenue, the BRT vehicles travel in exclusive lanes between Kapiolani Boulevard and South King Street. No traffic lanes are taken from University Avenue, so traffic flow on University is not greatly affected. Mauka of South King Street, the BRT is mostly in mixed-flow operation and would not displace any traffic lanes. These modifications are projected to greatly reduce the traffic impact of the In-Town BRT in the segments mentioned.

19. *The most serious gridlock, I think, will probably develop along Dillingham Boulevard in front of HCC. There's only one lane left in each direction for all the other vehicles, including the buses. The local buses will have to share the one lane. And the loss of many miles of the public traffic lanes will also lead to people being able to use the roads less now with the traffic backing up.*

    Response: The Refined LPA also includes changes to the In-Town BRT along the Dillingham Boulevard corridor.

In Kalihi provisions have been made to accommodate local bus service. Local transit service on Dillingham Boulevard will be maintained, thereby providing convenient transit access for those choosing not to utilize the BRT stops. To address the impacts of local buses stopping at bus stops, bus bays are proposed for the segment of Dillingham Boulevard between Kaaahi Street and Waiakamilo Road. Between Waiakamilo Road and Puuhale Road, Dillingham Boulevard is proposed to be widened to provide 18-foot traffic lanes. These lanes would be wide enough for through traffic to pass a local bus stopped at a bus stop or vehicles loading along Dillingham Boulevard. Forecasts of year 2025 peak hour traffic along Dillingham Boulevard indicate that the combination of mode shift to transit and capacity improvements on Nimitz Highway would enable Dillingham Boulevard to operate at comparable level of service with the exclusive BRT lanes implemented.

20. *Unfortunately, one of the major faults in this plan is that it doesn't take into account human nature. Without any physical barriers to separate the lanes, some people will cross over into the open transit lanes, particularly if the remaining public lanes get all jammed up. Accidents and mistakes by people not familiar with this new system will also put non-transit vehicles in the CityTram lanes. Unfortunately, once they get into the center aisle, they may have difficulty getting back out, particularly when the adjacent lanes are all jammed up at rush hour. The result will be gridlock, where all the lanes will be jammed up.*

    Response: See response to comment #5.

21. *This will also significantly increase the frequency of other unwanted behaviors including horn honking and road range.*

    Response: See response to comment #3.

22. *It will also impede or prevent emergency and police vehicles from doing their jobs.*

    Response: On the contrary, the proposed network of exclusive and semi-excusive BRT lanes will greatly enhance emergency vehicle response times by providing an uncongested lane for such vehicles to reach incident locations. With proper emergency traffic signal preemptions in place, BRT vehicles will be able to move out of the exclusive lane at the nearest intersection to allow emergency vehicles to pass through the intersection unimpeded by either left turning or cross street traffic.

23. *Before the City wastes considerably more money on the EIS, I believe they should try to cone off the proposed – now the In-Town BRT lanes...try it for at least a week and observe the impact on the rest of the traffic. This would be the scientific approach. In other words, let's see what happens when you just put the cones down on these lanes, the center two lanes, down Dillingham, down Kapiolani, where I'm really concerned with other people here, and let's see how far the traffic backs up and how quickly it backs up. Maybe it will keep flowing. I don't know. I don't think so. But anyway, my opinion, it's going to back up. You have your opinion, you have your slide show. Therefore, I'd like to see the test before more money is wasted on a project that I think cannot move anywhere.*

    Response: See response to comment #13.

24. *The major bottleneck on Kapiolani Blvd. starts on Atkinson Drive (where two lanes in the Ewa direction will be lost if we adopt the CityTram or BRT). Traffic will therefore back up in front of the new Convention Center.*

    Response: See response to comment #18.

25. *Some of the other major bottlenecks formed by the proposed CityTram include University Avenue above Sinclair Circle and also on the corner with Kapiolani Blvd.*

    Response: See response to comment #18.

26. *Ward Ave. and King St.. will get find new delays, as will travelers along Ala Moana Blvd., Kuhio Ave., and Richards Street – as all will lose lanes now used by all vehicles, when they become restricted by prohibiting vehicles that use these busy lanes now.*

    Response: The Refined LPA includes a shift of the UH-Manoa Branch of the In-Town BRT from Ward Avenue to Pensacola Street. The shift would allow the BRT to serve the McKinley High School/Kaiser Clinic area better and avoids the heavily utilized Ward Avenue. Traffic analyses located Chapter 4 of the FEIS indicate that the BRT could be accommodated on South King Street.

    Parts of Ala Moana would operate with slightly higher congestion in the Refined LPA than in the No Build Alternative. However, these areas would be congested with or without the BRT, so the BRT provides an alternative mode through the congestion. The segment of Ala Moana Boulevard between Ala Wai Canal Bridge and Kalia Road would actually improve in the Refined LPA. In this alternative, it is proposed to widen Ala Moana Boulevard by one lane in each direction. The outside lanes would become semi-exclusive lanes, serving BRT vehicles, City buses, tour buses, and vehicles turning right into side streets or driveways.

    The Refined LPA results in more congestion than the No Build on Kuhio Avenue. However, Kuhio Avenue is projected to operate in congested mode with or without the BRT. The BRT would provide an alternative mode and would work with current Waikiki Livable Communities concepts to narrow Kuhio Avenue to provide wide pedestrian promenades on Kuhio Avenue.

27. *Comment repeated. See comment #19.*

    Response: See response to comment #19.

28. *The loss of many miles of heavily used public traffic lanes for the proposed CityTram also will lead to less people being able to use the existing roads even if it works as planned, because most of the time the new CityTram lanes will be empty. During rush hour, they are now filled with people in various vehicles that are still moving. An empty lane obviously does not increase the total number of people in motion, and it is planned to be empty most of the time – if it works according to plan.*

    Response: In those places where some lanes will be dedicated for the exclusive use of BRT, the total people carrying capacity of the effective roadway will increase.

    The BRT vehicles will operate at short intervals, as often as every two minutes or less during the morning and evening peak periods, and 4- to 6-minute intervals during off-peak hours. With a

standard occupancy level of 75 percent, each BRT vehicle will be carrying the equivalent number of passengers as 65 automobiles at a 1.2 passengers/auto occupancy. Since a typical highly utilized arterial traffic lane carries about 500 vehicles per hour during peak periods, the BRT will be accommodating two to four times as many people as the adjacent traffic lane, depending on the frequency of BRT service along that section of the alignment.

29. *Comment repeated. See comment #20.*

Response: See response to comment #5.

30. *Comment repeated. See comment #21.*

Response: See response to comment #3.

31. *Comment repeated. See comment #22.*

Response: See response to comment #22.

32. *There will also be 947 existing parking spaces lost to the new CityTram lanes, making the already scarce parking spaces even more difficult to find.*

Response: With limited right-of-way, major streets should be used for moving people, not parking cars. In areas where a large concentration of parking spaces will be affected, replacement parking in new off-street parking facilities will be considered, but only if it meets other livable community objectives and is the result of community-based planning. For example, replacement parking will be considered for the neighborhood around University Avenue, where 78 on-street parking spaces will be lost. Each area of concern will be addressed on a case by base basis during the project's Final Design phase.

33. *Before the City wastes considerably more money on the EIS, I believe they should try to cone off the proposed BRT lanes on these busy streets temporarily for one week, to observe the impact on the rest of the traffic.*

Response: See response to comment #13.

34. *Beyond the gridlock predicted for rush hours, there is another error in the calculations of increased carrying capacity under the new system – even if everybody were to somehow stay out of the new "BRT only" lanes. At the present time, these lanes are full of various vehicles – particularly during the morning and evening rush hours. According to the proposed plan, most of the time the new BRT lanes would be empty. A sparsely used lane obviously does not increase the total number of people in motion – unless you are only counting bus riders and forgetting the rest of the people who use these busy streets.*

Response: See response to comment #28.

35. *My question is, where can one find the "Worst Case Scenario" section of the Draft Environmental Impact Statement? It seems that this document avoids discussing relevant problems that happen each day during rush hour.*

Response: Many of the impact analyses contained in the EIS evaluate normal worst-case conditions. For example, the highway impact section in Chapter 4 of the MIS/DEIS describes the traffic conditions during A.M. and P.M. peak hours. It is not appropriate to evaluate unusual worst-case conditions such as traffic conditions during a traffic accident.

36. *With the great number of negative consequences that would arise if gridlock regularly entangles our busiest roads, I again repeat C.A.R.E.'s request that you cone off the proposed BRT lanes on these busy streets temporarily for one week. This will enable us to observe the impact on the rest of the traffic and test whether this plan is even possible. I hope the City Council will soon adopt this scientific approach before money is wasted on an Environmental Impact Statement that will not be needed, if test results reveal this vision to be true.*

Response: See response to comment #13.

37. *The public presentations have heavily favored the BRT choice over the no-build and transportation system management options.*

Response: A complete and balanced description and comparison of the No-Build Alternative, Transportation System Management (TSM) Alternative, and Bus Rapid Transit (BRT) Alternatives were presented in the MIS/DEIS and at the public hearing.

38. *This plan is based on the notion that traffic flow will become more efficient by taking the two center lanes from busily traveled thoroughfares such as Dillingham, Kapiolani and Ward. These center lanes will then be supposedly reserved for an unspecified BRT bus. The new "express" BRT stops will also be in the middle of these busy streets. On the other hand, local buses will continue in the right lanes, making their customary frequent stops, but with the BRT in place, there will often be no room to pass them.*

Response: In certain areas provisions would be made to accommodate local bus service. In Kalihi local transit service on Dillingham Boulevard will be maintained, thereby providing convenient transit access for those choosing not to utilize the BRT stops at McNeill or Alakawa Streets. To accommodate the local transit service without blocking the traffic lanes, 16-foot wide lanes are proposed on Dillingham Boulevard, west of Walakamilo Road. This is sufficient width for traffic to go around the stopped bus. East of Walakamilo Road, bus pullouts will be provided so that local transit can pull out of the way of vehicular traffic.

On the section of Kapiolani Boulevard with two exclusive BRT lanes, there will be two general purpose traffic lanes in each direction as well as the exclusive BRT lanes. Motorists will be able to use the adjacent lane to go around stopped buses.

With the Refined LPA the BRT alignment has been moved from Ward Avenue to Pensacola Street. Since the makai-bound BRT lane will be curbside on Pensacola, local buses will share the BRT stop.

39. *Unfortunately, the city planners also seem to assume that everybody will stay in line as traffic backs up behind the bottlenecks and in the more restricted left-turn lanes too. It would seem obvious that some fraction of the people stuck in traffic will pull into the relatively open center lanes either from frustration or by mistake.*

Response: See response to comment #5.

40. *Once in the restricted center lanes, they will have difficulty getting back – as they are surrounded by traffic and will probably have to proceed to the next intersection to get out. These new BRT intersections will be quite a mess, as the major sevings in time anticipated (without delays) depend on the BRT vehicles being able to turn the lights green when they actuelly reech the intersection.*

    Response: There would be no physical barriers between the BRT exclusive lanes and mixed traffic lanes. Therefore, in e blockage siluation motorists will be able to move from an exclusive BRT lane to an adjacent lane when there is a break in traffic in the adjacent lane. Traffic signals will not be pre-empted by the BRT. At certain intersections, BRT vehicles approaching a green signal will activale a 10-second extension of the green indication for that cycle only.

41. *Any accidents that could easily occur at any of the many BRT intersections can again cause gridlock, which will spread like cancer to nearby streets – choking off the essential flow of people and products vital to our economy. Emergency and police vehicles will also face significent new problems.*

    Response: The two candidate technologies, embedded plate and hybrid-electric propulsion, both provide the flexibility to operate outside of the designated BRT lanes and therefore can easily maneuver around accident sites, emergency vehicles and traffic. Also, the proposed network of exclusive and semi-exclusive BRT lanes would greatly enhance emergency vehicle response times providing an uncongested lane for such vehicles to reach incident locations.

42. *City plenners should test their assumption that the rest of the traffic will continue to flow efter losing two lenes of many of our most treveled roads – by temporarily coning them off for a week.*

    Response: See response to comment #13.

43. *Unfortunately, when the BRT goes in taking two lenes out of the major thoroughfares like Kapiolani and King Street, where ere all those displaced cers supposed to go. Beck on the freeway making conditions up there worse? I don't know.*

    Response: See response to comment #3.

44. *Even if one assumes that all these people ere going to stay out of these new BRT lenes, which I think is e felse assumption, you can't expect everybody to stay out of these lanes. They're going to get in there either from accident or frustration. They're going to pull in there and once they get in there, how do they get out. Walled in by traffic. The only way to get out is go down to the next intersection end these intersections are going to be something else. So, then they're going to be all tied up there and backed up both ways.*

    Response: See response to comment #40.

45. *I think you have to put in extre lines. You cannot solve the problems that exist by just trying to jam it up more with more buses on the seme old streets.*

    Response: There is insufficient room within the existing roadway right-of-way to accommodate additional lanes. The alignment and elements of the Refined LPA are designed to be predominately wilhin the existing roadway right-of-way in order to minimize right-of-way takes.

46. *So agein, I repeat in summary thet if you think this is going to work, please cone off these lanes for a week, maybe a day or two before everybody screams and hollers that this cannot work.*

    Response: See response to comment #13.

47. *First, the assumption that you can increase the cerrying capacity in the primary transportation corridor by taking two lanes out of general public use on our busiest thoroughfares defies the laws of physics – as a lane that is usually empty cannot carry more people than one that is quite full, but still moving now during rush hours.*

    Response: See response to comment #28.

48. *Secondly, traffic jams will be caused by having buses in four of the six lenes of Kapiolani and Dillingham Blvds. With the In-Town BRT plen, the right lanes will still have local city buses in them, making their regular frequent stops – so that lane often does not move. Then, what is now the middle lane becomes the left-turn lane. This will have a terrible impect on traffic because that central lane is now the only through lane. When the BRT gobbles up the two middle lanes, the through lane will be eliminated – as it becomes the new left-turn lane. Of course, traffic will beck up because it will become even more difficult to meke a left turn with the BRT end its stations – in the middle of the street.*

    Response: Left-turn lanes will be provided along Dillingham and Kapiolani Boulevards such that the scenario described would not occur.

49. *To find more evidence of this projected gridlock, I went through the two inches of documents and drawings that comprise the Dreft EIS for this controversial project. I was looking for the number of vehicles now using the roads where the new In-Town BRT is supposed to go. While I was expecting a lane by lane, hour by hour tabulation – I was surprised to find no detelled data of existing traffic pattems on any of the major streats where the In-Town BRT is now being planned. Meesuring the flow of vehicles now using these very busy lanes on Kapiolani, Dillingham Ward and other very busy thoroughfares, would be the logical point to stert e reelistic environmental impact enelysis. Without any such measurement, the number of vehicles that will be displaced when turning the lanes over to the proposed BRT remains unknown. They all seem to magically vanish – as no serious mention of what happens to them can be found in this unscientific report.*

    Response: Chapter 4 of the FEIS shows quantitatively the effects of converting designated lanes to priority use by transit vehicles.

50. *The number of displaced vehicles is central to e true Environmental Impact Statement. By failing to count them end then ignoring the impact that these displaced vehicles will have on the surrounding streets end on the freeways – a completely distorted picture has been presented in the Dreft EIS.*

    Response: See response to comment #49.

51. *Thus, the entire Dreft EIS report is just unrealistically optimistic conjecture that overlooks the likely problems that will arise through the creation of major new bottlenecks and simultaneously eliminating lanes now being used by the general public.*

    Response: See response to comment #3.

52. *Resolution 00-249 supports this grossly misleading Draft EIS and should be defeated before we waste more public funds on a plan that has not done its basic background measurements. It also has not even considered the likely problems to arise when thousands of vehicles are evicted from our busiest roads – and forced onto other already crowded streets and freeways.*

    Response: On November 29, 2000, the City Council adopted Resolution 00-249 identifying the Bus Rapid Transit (BRT) Alternative as the Locally Preferred Alternative (LPA).

53. *I would also like to know if this data (summary of traffic flow along Kapiolani Blvd.) appears in the Draft Environmental Impact Statement for the BRT, as I have a copy of the CD version that was distributed by your Department.*

    Response: The referenced information does not appear in the MIS/DEIS; however, it is included in the FEIS.

54. *I believe this data (summary of traffic flow along Kapiolani Blvd.) is illogical because 1,600 vehicles per hour cannot just vanish from Kapiolani Blvd. (near the intersection with Piikoi - PM Peak) without having a significant environmental impact on the traffic flow – yet I could find no mention of these displaced vehicles in the Draft EIS. (4,000 vehicles/hour under the "No Build" Plan and 2,400 vehicles/hour with the BRT). Could you point out where this very significant problem of vehicle displacement is discussed in the Draft EIS?*

    Response: Table 4.4-6 in Chapter 4 of the FEIS summarizes the differences in traffic volumes on roadways parallel to Kapiolani Boulevard. The magnitude of the traffic volumes is different from those shown in the MIS/DEIS due to the use of an updated version of the Oahu Metropolitan Planning Organization (OMPO) travel demand forecasting model. This most recent version of the model was used for the update of the Oahu Regional Transportation Plan (ORTP). The FEIS utilized this updated model to be consistent with the regional transportation agency data.

55. *Secondly, I still believe that this 1,600 vehicles per hour evicted from Kapiolani Blvd. figure derived from the data that you supplied to me on Nov. 22, 2000 – also underestimates the actual number to be displaced by the BRT because your data also assumes that the two lanes that are left for the general public to use can carry 1,200 vehicles per hour each.*

    Response: See response to comment #54.

56. *This also assumes that the existing city buses will still travel and stop in the right hand lanes, which will be shared with the general public. Unfortunately, these regular city buses also back up traffic behind them whenever they stop to accept or discharge their passengers. If any turns are to be allowed, the left lane will also back up when people must wait for a clear path to make their left turns.*

    Response: Typically where local buses will be operating on the same street as the BRT, they will be operating in mixed traffic. If there are not multiple lanes, bus turnouts or extra-wide lanes are being proposed so that motorists will not have to wait behind stopped buses.

57. *This data is unscientific because it has not been shown that two lanes can carry 2,400 vehicles per hour during peak periods. Because some of these vehicles will be city buses making their regular stops – this figure is unrealistic, and should be put to a test by coning off the BRT lanes temporarily to see how it will affect the remaining two lanes on Kapiolani Blvd.*

    Response: See response to comment #13.

58. *I also thank you for providing me with a copy of the MEMORANDUM from Kenneth Benao on the subject of TRAFFIC COUNTS ON KAPIOLANI BOULEVARD just before the City Council Meeting began yesterday. The data of 2218 vehicles per hour in the 4 East Bound (Makai) Lanes for the P.M. Peak Hour was dated 12/24/94 – almost six years ago (555 vehicles/hr/lane). Did you find anything more recent?*

    Response: More recent traffic data is used in the FEIS.

59. *I am also looking for some similar traffic counts and projections for Ala Moana Blvd. near Piikoi, to help gauge the impact that the second CityTram spur will have on traffic flow patterns in that area.*

    Response: See response to comment #58.

Part B – SDEIS Comments

60. *I started speaking against this plan a year and a half ago, and I was already a latecomer since I was told that the plans had been developed three years previously to that.*

    Response: We appreciate you taking the time to attend the public hearing and express your views regarding the project.

61. *And when I found out more about the community discussions that led up to this plan, I was surprised to find out that any kind of fixed rail was already ruled out, you couldn't consider any kind of fixed rail in all these discussions that led to the system. And I think that's why we got this system.*

    Response: A grade separated rail system was eliminated at the outset by the public and the City Council as being too costly and unsightly.

62. *Because I am also from New York, and I find that it was much better to take the subway usually, because that kind of system is dependable. When you have a fixed rail system, you can have fairly dependable schedules, and it doesn't – it's not held up by all the different traffic lights.*

    Response: There is no question that a subway is faster and more reliable than an at-grade system. A subway system is not an option for Honolulu.

63. *This was originally called the City Tram, and then they changed the name to Bus Rapid Transit, because the initials are now BRT, which is very similar to – and the BRT sounds a lot like BART, which is in San Francisco, which is a fixed rail system. It's very nice, it's very quiet, it's very good.*

    Response: The official project name is the Primary Corridor Transportation Project and the alternatives considered through the process have always referred to bus rapid transit or BRT.

64. *But our system is no way anywhere close to the BART, the BART in San Francisco. Instead of that, we get something that's much more similar to the cable car system, which is so slow, you can walk faster most of the time, because it stops at every traffic light.*

    Response: Unlike the San Francisco cable cars, the proposed In-Town BRT will achieve relatively fast speeds by offering limited stop service in priority lanes, with level boarding from multiple doors.

65. *Now, the trouble with this system is, again, if anything happens, any big accident at an intersection, the system goes down. You're held up with the same traffic, you're held up by the buses that are in front of you, which often will be other kinds of City buses.*

    Response: The BRT buses will only be impacted if the BRT lane is affected by the accident. In the rare instance where the whole intersection is tied-up, the BRT buses have the flexibility to go around blockages.

66. *And they assume that you can pass around them, but this might not be practical, particularly in rush hour, because then those lanes will be blocked with other vehicles. And since there is no dependability to having a rapid transit, that then this is a glorified bus system.*

    Response: The accident situation described would not be of such frequent occurrence as to render the proposed system "undependable".

67. *I think the money would be much better spent and just -- maybe if there's not enough buses, if they add some more buses.*

    Response: The City does plan to expand the existing bus fleet as necessary.

68. *Again, I'd like to thank the planners for eliminating, from the first phase, the places that I thought would be getting the most trouble, which is Dillingham, particularly near Honolulu Community College, and the old Kapiolani route, which is going to be held off for the first year. Those are the places where I thought there'd be the most trouble, and they're not going to be in the first year of this program. And I want to commend them for deleting them. But I think they're not -- not to be temporarily deleted, because it will not work in those areas, because they cannot afford to give up lanes in those very heavily traveled roads, particularly in the rush hour.*

    Response: See response to comment #3.

69. *Finally, I'd like to -- not finally. Two more points. One is that I'm still not sure what's going to happen to bicycles that are now on the right-hand side, when these vehicles take up the right-hand side. I haven't had much discussion of what happens to bicycles or mopeds. And mopeds mostly stay in the traffic. But bicycles on the right-hand side, I'm not sure where they're going to go. Do they have to go in the middle of the road then? It would be very impractical for bicycles.*

    Response: Implementing the In-Town BRT will improve city streets for cyclists because they will be allowed to use the wider curbside In-Town BRT lanes if no bike lanes are provided on that section of street. In addition, the Refined LPA will maintain bike lanes wherever they exist today or are planned for in the Honolulu Bicycle Master Plan or the State Bike Plan Hawaii.

70. *And finally, I think they should look a little bit more at the experimental Kaimuki trolley system, which doesn't take exclusive lanes, but it's taking about a million dollar subsidy. They are running on time. But ever time they come up to Kaimuki, there's one or two people on it. And if people aren't going to give up their cars and take the trolley, which only costs one dollar, why do you think that everybody is going to flock to this BRT when it could be just as slow as the regular bus system? That's it.*

    Response: The Kaimuki trolley was implemented primarily to attract tourists to the Kaimuki business district. It has no relevency to the In-Town BRT which is designed to serve the resident population.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

ACEC
American Council of Engineering Companies

Consulting Engineers Council of Hawaii

April 19, 2002

Ms. Cheryl D. Soon
Director of Transportation Services
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Subject: TESTIMONY IN SUPPORT OF SDEIS FOR BUS RAPID TRANSIT

My name is Ken Hayashida, President of the Consulting Engineers Council of Hawaii (CECH). I am speaking in support of SDEIS for the Bus Rapid Transit (BRT) project.

We support the goals of BRT are to improve mobility in Honolulu, foster livable communities, and strengthen the connections within the city and from outlying areas. The BRT will provide transit alternatives for the residents and visitors in Honolulu. Having a clean, efficient, modern, dependable public transit system is an important component in making Honolulu a livable city, and laying the groundwork fortransportation infrastructure for our future generations. Thank you for allowing me to testify today.

Ken K. Hayashida, President
Consulting Engineers Council of Hawaii

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01509R

November 13, 2002

Mr. Roy Yamashiro
President
American Council of Engineering Companies of Hawaii
P. O. Box 86840
Honolulu, Hawaii 96830

Dear Mr. Yamashiro:

Subject: Primary Corridor Transportation Project

This is in response to the April 19, 2002 testimony regarding your organization's comment on the Supplemental Draft Environmental Impact Statement (SDEIS).

We support the goals of BRT to improve mobility in Honolulu, foster livable communities, and strengthen the connections within the city and from outlying areas. The BRT will provide transit alternatives for the residents and visitors in Honolulu. Having a clean, efficient, modern, dependable public transit system is an important component in making Honolulu a livable city, and laying the groundwork for transportation infrastructure for our future generations. Thank you for allowing me to testify today.

Response: We concur and thank you for supporting the BRT project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

GENERAL CONTRACTORS ASSOCIATION OF HAWAII

1065 AHUA STREET • HONOLULU, HAWAII 96819-4493 • TELEPHONE 833-1681

October 26, 2000

TO: Chair Duke Bainum and Members of the City Council Transportation Committee

Subject: Primary Corridor Transportation Project MIS / DEIS dated August 2000

Dear Chair Bainum and Members of the City Council Transportation Committee:

The General Contractors Association of Hawaii (GCA), an organization composed of 470 general contractors, subcontractors and construction related firms, supports the Bus Rapid Transit (BRT) Alternative presented in the Major Investment Study (MIS) / Draft Environmental Impact Statement (DEIS) for the Primary Corridor Transportation Project.

The community visioning meetings and Oahu Trans 2K workshops established three points of agreement that a transportation system needed to achieve. These were 1) Improve mobility; 2) Strengthen island-wide connections; and 3) Foster livable communities.

After four rounds of meetings with community groups, three alternatives emerged. These were:

1. **No Build:** This alternative would include roadway projects committed to implementation in the next three years and expansion of the bus and van pool service.

2. **Transportation System Management (TSM):** This would reconfigure the present bus route network to a hub-and-spoke network.

3. **Bus Rapid Transit (BRT):** This alternative builds on the hub-and-spoke bus system and adds Regional and In-Town BRT elements. The In-Town element between Middle Street and UH Manoa and Waikiki would involve dedicated lanes with electric or hybrid diesel / electric technology.

It is our opinion the BRT alternative, by far, addresses the three points of agreement established from the visioning meetings and Oahu Trans 2K workshops.

The area affected by the Primary Corridor project encompasses more than 60 percent of the island's population and more than 80 percent of its employment. Furthermore, there are several residential, commercial and industrial developments ongoing or

already approved in the Kalaeloa, Kapolei, Ewa, Waikele, Waipahu, Pearl City, Pearl Harbor, Kalihi, Downtown, Kakaako, Ala Moana, and Waikiki areas. So travel along this corridor will only increase in the future.

In 1982, the typical Oahu driver experienced 14 hours of delay time per year. In 1997 this number more than doubled to 29 hours per year. This equates to 25 million gallons of wasted fuel per year. The No Build and TSM alternatives will do very little to improve our mobility, strengthen island wide connections, and foster livable communities. In fact our situation will only get worse. In all likelihood, we will be faced with 12 hours of peak traffic, gridlock, and communities facing increased air, water, noise and ground pollution.

The BRT alternative offers a coordinated macro solution to not only our transportation needs, but also preserving or even improving our quality of life and protecting our environment for future generations. It introduces the use electric or hybrid diesel / electric powered vehicles, at least in the In-Town section, and coordinates and encourages the use of bicycles and walking. This is a major step in using alternate sources of energy for our transportation needs.

There will be some, along the corridor, that will be affected by traffic pattern changes or relocations. But what is better to have? Efficient, quiet transportation, improved quality of our environment and neighborhoods, or grid lock, noise and pollution for the sake of not changing our traffic patterns and our lifestyles.

Though the capital cost of the BRT system at $1 billion is three times the cost of a No Build alternative and double the cost of the TSM system, it can be spread over an affordable period of time and receive substantial federal funding. Of the dedicated lane or fixed rail alternatives, it is the least costly and most flexible.

If we do not start investing in our future through innovative, environmentally and socially conscious alternatives, we will pay for it in wasted time, aggravation, crime, traffic fatalities and environmental damage.

The General Contractors Association of Hawaii supports the BRT Alternative presented in the Major Investment Study / Draft Environmental Impact Statement for the Primary Corridor Transportation Project.

We thank you for this opportunity to testify.

Yours truly,

Glenn M. Nohara

Glenn M. Nohara
Chairman, GCA of Hawaii Legislative Committee

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Glenn M. Nohara, Chairmen
GCA of Hawaii Legislative Committee
1065 Ahua Street
Honolulu, Hawaii 96819

Dear Mr. Nohara:

Subject: Primary Corridor Transportation Project

This is in response to your October 26, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *The community visioning meetings and Oahu Trans 2K workshops estebilshed three points of agreement thet a transportetion system needed to achieve. These were 1) Improve mobility; 2) Strengthen islandwide connects; end 3) Foster livable communities. It is our opinion the BRT alternative, by far, eddresses the three points of agreement established from the visioning meetings and Oahu Trans 2K workshops.*

   Response: Comment noted. The project agrees with this statement.

2. *The BRT alternative offers e coordinated macro solution to not only our transportetion needs, but also preserving or even improving our quality of life end protecting our environment for future generations. It introduces the use electric or hybrid diesel/electric powered vehicles, et least in the In-Town section, end coordinates and encourages the use of bicycles and walking. This is e major step in using alternete sources of energy for our transportetion needs.*

   Response: Comment noted. The comment agrees with the MIS/DEIS.

3. *There will be some, along the corridor, that will be effected by traffic pattern changes or relocations. But whet is better to have? Efficient, quiet transportation, improved quality of our environment and neighborhoods, or grid lock, noise and pollution for the seke of not changing our traffic patterns and our lifestyles.*

   Response: Comment does not require a response since commenter is addressing City Council.

4. *Though the capitel cost of the BRT system at $1 billion is three times the cost of a No Build alternetive end double the cost of the TSM system, it can be spread over en affordable period of time end receive substantial federal funding. Of the dedicated lene or fixed rail alternetives, it is the least costly end most flexible.*

   Response: The comment is in agreement with the MIS/DEIS and FEIS.

5. *The General Contractors Association of Hawaii supports the BRT Alternative presented in the Major Investment Study / Draft Environmental Impact Statement for the Primary Corridor Transportation Project.*

   Response: Comment noted. It states the commenter's preference for an LPA.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamolo at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

HAATA
HAWAII ACTIVITIES AND TOURS ASSOCIATION

FAX

MAY 8 2002

Date: 5.7.2002

To: Ms. Cheryl D. Soon, Director
Department of Transportation Services

Fax #: 523-4730

From: Darci Evans, Administrative Assistant
HAWAII ACTIVITIES AND TOURS ASSOCIATION

Subject: Primary Corridor Transportation Project — BRT

I am faxing 2 pages (including cover sheet). If there's a problem in the transmittal, please call me at 524-6424 or e-mail me at "darci@haata.org". Mahalo.

MESSAGE:

Comments for City & County of Honolulu and the Federal Transit Administration

PMB 3101, 375 COOKE STREET #A HONOLULU, HI 96813 • PH 524-6424 • FAX 543-6044
WEBSITE: HAATA.ORG E-MAIL: INFO@HAATA.ORG

HAATA
HAWAII ACTIVITIES AND TOURS ASSOCIATION

RE: BUS RAPID TRANSIT FUNDING

- No members of the Hawaii Activities and Tours Association who responded to a recent poll about street closures were in favor of the Waikiki leg of the proposed Bus Rapid Transit.

- A BRT in Waikiki would inconvenience all except the Tram riders. Besides hindering services, the BRT would also be in direct competition to private sector transportation operations — displacing the private sector is against federal law.

- Why is approval of this ill-conceived idea being rushed? Some HAATA members report that meetings regarding the system have been one-sided presentations and not opened to dialogue. Also, many questions brought up have gone unanswered by the City's Department of Transportation Services. The planning process has been anything but "open" — it has been instead a closed-minded process.

- We question why the in-town portion being pushed to be built first. The part of the population which needs the most servicing it is outlying population... the "suburbs"... which in the case of the BRT is the Leeward/Central/Ewa side.

- It is felt that the City has orchestrated traffic congestion in Waikiki... namely 1) predominance of one-way streets; 2) the permanent closure of a lane on Kalakaua Avenue; 3) incorrectly "synchronized" traffic lights that don't allow for maximum-efficiency traffic flow; 4) and not choosing to add a lane on Ala Moana Blvd. entering onto Kalakaua, which the State had wanted to do.

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AR00015583

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TPD5/02-01865R

November 13, 2002

Ms. Darci Evans
Administrative Assistant
Hawaii Activities and Tours Association
575 Cooke Street, #A
Honolulu, Hawaii 96813

Dear Ms. Evans:

Subject: Primary Corridor Transportation Project

This is in response to your May 7, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *No members of the Hawaii Activities and Tours Association who responded to a recent poll about street closures were in favor of the Waikiki leg of the proposed Bus Rapid Transit.*

   Response: There will be no street closures as a result of implementing the BRT project.

2. *A BRT in Waikiki would inconvenience all except the Tram riders. Besides hindering services, the BRT would also be in direct competition to private sector transportation operations – displacing the private sector is against federal law.*

   Response: Comment noted. It is a statement of opinion. The public transit system complies with all federal regulations.

3. *Why is approval of this ill-conceived idea being rushed?*

   Response: The Primary Transportation Corridor Project was initiated in September 1998 and has involved over 200 meetings. Using an extensive public outreach process for over four years since its inception there has been continual progress made in evaluating alternatives and in defining the best transit solution for the primary corridor. One could hardly call this a "rushed" process.

4. *Some HAATA members report that meetings regarding the system have been one-sided presentations and not opened to dialogue. Also, many questions brought up have gone unanswered by the City's Department of Transportation Services. The planning process has been anything but "open" – it has been instead a close-minded process.*

   Response: There have been hundreds of public meetings regarding the project, plus the six working groups that were formed in the areas along the BRT corridor. Except where the format prohibited it, all of these meetings involved open dialog that resulted in project refinements as analyzed in the SDEIS

5. *We question why the in-town portion being pushed to be built first. The part of the population which needs the most servicing it is outlying population ... the "suburbs" ... which in the case of the BRT is the Leeward/Central/Ewa side.*

   Response: Timing and implementation of the P.M. zipper lane and related Regional BRT improvements must be coordinated with the State DOT. SDOT wants to widen the H-1 Freeway in the areas where the P.M. zipper lane is proposed before installing the zipper lane. Since the Iwilei-Waikiki segment of the In-Town BRT can be a viable improvement to the transit system immediately, the City Council has elected to proceed with this segment as the first step in phasing of the BRT system.

6. *It is felt that the City has orchestrated traffic congestion in Waikiki – namely 1) predominance of one-way streets; 2) the permanent closure of a lane on Kalakaua Avenue; 3) incorrectly "synchronized" traffic lights that don't allow for maximum-efficiency flow; 4) and not choosing to add a lane on Ala Moana Blvd. entering onto Kalakaua, which the State had wanted to do.*

   Response: The City continually works to enhance transportation and does not orchestrate traffic congestion.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

HAWAII ATTRACTIONS ASSOCIATION
615 Piikoi Street, Suite 1812 • Honolulu, HI 96814
(808) 596-7733 • Fax (808) 596-2277
WebSite: http://www.HawaiiAttractions.com
E-Mail: aloha@hawaiiattractions.com

November 6, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kaplolani Blvd., Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Thank you for taking the time to meet with our Board of Directors regarding the O'ahu Trans 2K Plan.

We believe that the BRT is the preferred option, however want to express our concern as it relates to Waikiki.

Since the majority of attractions are located outside of Waikiki, the ability for us to transport visitors to and from Waikiki with ease is of the utmost importance. We strive to accommodate our visitors needs with convenience, comfort and aloha.

The current plan proposes taking the makai lane of Kalakaua for the BRT tram. The City is proposing that this lane can be a shared lane with tour buses and trolley's.

We would like the opportunity to continue to dialog with you on this issue Ideally the plan that is implemented should benefit both residents and visitors.

Thank you for your consideration.

Sincerely,

Bob Taylor

Bob Taylor
Chairman of the Board

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05410R

November 13, 2002

Mr. Bob Taylor, Chairman of the Board
Hawaii Attractions Association
615 Piikoi Street, Suite 1812
Honolulu, Hawaii 96814

Dear Mr. Taylor:

Subject: Primary Corridor Transportation Project

This is in response to your November 6, 2000 letter regarding your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

> *Since the majority of attractions [is] located outside of Waikiki, the ability for us to transport visitors to and from Waikiki with ease is of the utmost importance. We strive to accommodate our visitors' needs with convenience, comfort and aloha. The current plan proposes taking the makai side of Kalakaua for the BRT tram. The City is proposing thet this lane can be a shared lane with tour buses and trolleys. We would like the opportunity to continue to dialog with you on this issue. Ideally, the plan thet is implemented should benefit both residents and visitors.*
>
> Response: It is the City's intent to shere the makai curb lane on Kalakaua Avenue with private buses and trolleys.

We will send you e CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require e printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Hawaii Construction Industry Association

Kukulu Kumuhana
Uniting Our Strengths

TESTIMONY IN SUPPORT OF BUS RAPID TRANSIT

PUBLIC HEARING
NEAL BLAISELL CENTER HAWAII ROOM
OCTOBER 12, 2000

The **Hawaii Construction Industry Association** (HCIA) is a joint cooperative organization established in 1985 and is the largest construction organization in Hawaii representing both labor and management. HCIA's Board of Directors represent nine Hawaii construction trade unions and ten Hawaii contractor organizations employing union labor. Our member organizations and more than 600 companies employ over 20,000 people in the Hawaii construction industry who are responsible for more than 75% of all the construction work performed in our state.

Construction has not fully recovered in Hawaii. Our industry has lost over 30% of our workers over the last nine years, a total of over 10,000 jobs. Construction related unemployment claims also make up 28% of all claims, the largest percentage of unemployment claims of any industry in Hawaii, according to the State Department of Labor.

The construction industry supports the Bus Rapid Transit Alternative. It is the best choice for quickly and efficiently improving the travel times for the most number of people. These projects could be funded heavily with Federal dollars, and should create about 3,000 jobs just for the construction industry. These additional jobs in the local construction industry will greatly stimulate economic activity as the construction money passes hands several times in the local economy and creates a multiplier effect that will benefit the entire state.

The improved transportation in our communities will also greatly increase personal freedom, mobility, and people's choices, just as it will reduce costs for shipping and transportation of goods and services. Business will be helped by a better transportation infrastructure that speeds up deliveries and brings in new customers. An improved transportation system is vital to our tourist industry. Without updating our infrastructure, Hawaii will continue to fall behind other destinations in providing a safe and comfortable experience for potential travelers to enjoy.

Oahu Trans2K has done its homework, conducted numerous rounds seeking community input, and tried to be responsive to island-wide community needs. The public, especially the large number who are not able to drive, overwhelmingly support this project and want it now. Please support this win-win proposal for our community.

Aloha,

Brian Lee
Executive Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 · Fax: (808) 523-4730 · Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Brian Lee, Executive Director
Hawaii Construction Industry Association
2828 Paa Street, #3115
Honolulu, Hawaii 96819

Dear Mr. Lee:

Subject: Primary Corridor Transportation Project

This is in response to your October 12, 2000 letter and oral testimony at the formal Public Hearing regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *The construction industry supports the Bus Rapid Transit Alternative. It is the best choice for quickly and efficiently improving the travel times for the most number of people.*

   Response: Comment noted. It states the commenter's preference for an LPA.

2. *These projects could be funded heavily with Federal dollars, and should create about 3,000 jobs just for the construction industry. These additional jobs in the local construction industry will greatly stimulate economic activity as the construction money passes hands several times in the local economy and creates a multiplier effect that will benefit the entire state.*

   Response: Comment noted. The project agrees with these statements.

3. *The improved transportation in our communities will also greatly increase personal freedom, mobility, and people's choices, just as it will reduce costs for shipping and transportation of goods and services.*

   Response: Comment noted. It is a statement of opinion.

4. *Business will be helped by a better transportation infrastructure that speeds up deliveries and brings in new customers.*

   Response: Comment noted. It is a statement of opinion.

5. *An improved transportation system is vital to our tourist industry. Without updating our infrastructure, Hawaii will continue to fall behind other destinations in providing a safe and comfortable experience for potential travelers to enjoy.*

   Response: Comment noted. It is a statement of opinion.

6. *We feel the Oahu Trans 2K has done its homework as they conducted numerous forums, seeking community input. The public, especially the large numbers who are not able to drive, overwhelmingly support this project, and we want it now. We urge you to support the Bus Rapid Transit alternative.*

Response: Comment noted. It states the commenter's preference for an LPA.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

HAWAII HOTEL ASSOCIATION
2250 KALAKAUA AVENUE, #404-4
HONOLULU, HI 96815-2564
TELEPHONE: (808) 923-0407
FAX: (808) 924-5843
E-MAIL: hha@pamworld.net
WEBSITE: www.hawaiihotels.org

Testimony of Murray Towill
President
Hawai`i Hotel Association

October 26, 2000

Re: Primary Corridor Transportation Project

Good evening Chairman Balnum and members of the City Council's Transportation Committee. I am Murray Towill, President of the Hawai`i Hotel Association and I appreciate this opportunity to present comments on the Primary Corridor Transportation Project.

We have reviewed the Primary Corridor Transportation Project and generally agree with the direction and plans proposed for the BRT options. Clearly the status quo in traffic planning is not acceptable, and the city is to be applauded in its efforts to improve public transit as an alternative. We also understand that in any large scale proposal like this, the details present the greatest challenge.

Nevertheless, I would like to point out some issues that specifically pertain to Waikiki that we would like to see more fully evaluated and/or explained. First, a number of our members have questioned putting transit vehicles on Kalakaua Ave. The city has just spent millions of dollars improving Kuhio Beach, and this proposal would move city buses adjacent to these improvements. BRT service to Waikiki seems desirable, but other solutions such as a Kuhio Ave. and Ala Wai Blvd. loop might work.

Second, if the Kalakaua Ave. and Kuhio Ave loop is to be used, we are concerned about the dedication of a vehicle lane on Kalakaua for transit vehicles only. Between Kaluiani Ave. and Kapahulu Ave., Kalakaua Ave. was recently reduced to three moving lanes in conjunction with the Kuhio Beach improvements. The BRT proposed would remove another lane for non-transit vehicles. Director Soon has indicated this dedicated lane may not be necessary. We would ask the Council to emphasize this point if the BRT proposal is selected since we believe severe traffic congestion would result from the elimination of another lane.

Third, we would like to see a more detailed analysis and explanation of how businesses in Waikiki would obtain freight and goods service. The reduction of lanes and elimination of loading areas will certainly complicate operations of Waikiki businesses. The outcomes of this type of analysis must be integrated into any final Transportation Plan.

Finally, we would like to see a more detailed analysis of the BRT plan of Kuhio Ave. It appears that Kuhio would be reduced to four (4) moving lanes. One would be dedicated to the BRT, one would handle local buses, trucks and automobiles moving in a Diamondhead direction. Two lanes would accommodate local buses, trucks and automobiles moving in an Ewa direction. This configuration seems likely to create serious movement problems.

Again, thank you for the opportunity to provide comments.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD10/00-05268R

November 13, 2002

Mr. Murray Towill, President
Hawai'i Hotel Association
2250 Kalakaua Avenue, #404-4
Honolulu, Hawaii 96815

Dear Mr. Towill:

Subject: Primary Corridor Transportation Project

This responds to your oral testimony at the October 26, 2000 Special Transportation Committee Meeting and your October 26, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We generally agree with the direction and the plans proposed in the BRT option.*

   Response: Comment noted. It is a statement of opinion.

2. *First of all, some of our members have questioned the logic of putting City buses on Kalakaua Avenue especially after the City has invested millions of dollars at the Kuhio Beach improvements then to be putting City transit vehicles immediately adjacent to those improvements.*

   Response: Proposed vehicles will be environmentally compatible electrically powered buses that will provide an option to the private auto. This is completely consistent with the City's objectives of reinforcing Waikiki and Kalakaua Avenue as a pedestrian-oriented precinct.

3. *And they question whether perhaps a Kuhio/Ala Wai loop might be considered in lieu of a Kalakaua/Kuhio loop. As another way to create a couplet moving transit vehicles through Waikiki.*

   Response: Prior to selection of Kalakaua and Kuhio Avenues as the Locally Preferred Alternative route in Waikiki, the City analyzed a variety of alternate routes including: (1) two-direction service on Kuhio; (2) a Kuhio-Ala Wai BRT couplet; (3) a Kalakaua-Ala Wai BRT couplet; and (4) turning back BRT service at or near Saratoga and Kalakaua. None of these alternatives would provide anywhere as convenient service to residents and employees in central Waikiki as the Refined LPA

4. *Secondly, the Kalakaua/Kuhio BRT loop dedicates traffic lanes to BRT vehicles. And that becomes especially critical on Kalakaua in the section between Kaiulani and Kapahulu Avenue where recently a lane of traffic was removed for the Kuhio Beach improvements. And now we're talking about dedicating another lane to transit vehicles, the BRT and other sort of transit vehicles. So, you would end up with all other vehicles and all sorts of truck traffic being limited to two lanes. Again, recognizing there will be additional loading requirements removed from the street.*

Director Soon has indicated that it may not be necessary to dedicate a BRT lane in that particular four-block stretch. And that's something that we would certainly like to see to have the Council emphasize on that.

Response: A semi-exclusive BRT lane on Kalakaua Avenue will not be required Koko Head of the Kalakaua/Ulunlu Stop. Therefore no lane-use restrictions are proposed for any of the existing three lanes in the five-block segment between Ulunlu Street to Kapahulu Avenue. The makai curb lane Ewa of Ulunlu Street, including the one block segment between Kaiulani Avenue and Ulunlu Street will be converted to a semi-exclusive transit lane for use by BRT buses, private buses and trolleys, and right-turning autos.

5. *And, I guess, finally the reductions of lanes and elimination of loading options is clearly going to impact business operation in Waikiki. And the City has talked about a loading study. We would like to make sure that that's done in conjunction with the transportation or the transit planning to make sure that these are dovetailed into the final transit solutions.*

   Response: Through community outreach efforts including working with members of the Hawaii Transportation Association which represents private freight and passenger carriers, the sub area Working Groups, the Waikiki Improvement Association, and others, DTS has developed a plan which minimizes direct impacts on passenger and freight loading zones, and, in the event of unavoidable adverse impacts, identifies alternate loading locations for all businesses along the BRT route. There will not be any measurable impact on businesses due to the loss of any loading zones. This will be achieved by allowing freight carriers to continue to use the BRT shared lanes during legal delivery hours (10 P.M. to 9 A.M.) on Kalakaua Avenue and 10P.M. to 7:30 A.M. on Kuhio Avenue). During these hours the BRT would simply pass around a stopped loading truck by using the adjacent traffic lane.

6. *First, a number of our members have questioned putting transit vehicles on Kalakaua Ave. The city has just spent millions of dollars improving Kuhio beach, and this proposal would move city buses adjacent to these improvements. BRT service to Waikiki seems desirable, but other solutions such as a Kuhio Ave. and Ala Wai Blvd. loop might work.*

   Response: The pedestrian experience along Kuhio Beach and other portions of the In-Town BRT alignment should improve because noise levels will be lower and air quality will be cleaner with the use of environmentally friendly, electric or hybrid-electric vehicles.

7. *Second, if the Kalakaua Ave. and Kuhio Ave. loop is to be used, we are concerned about the dedication of a vehicle lane on Kalakaua for transit vehicles only. Between Kaluleni Ave. and Kapahulu Ave., Kalakaua Ave. was recently reduced to three moving lanes in conjunction with the Kuhio Beach improvements. The BRT proposed would remove another lane for non-transit vehicles. Director Soon has indicated this dedicated lane may not be necessary. We would ask the Council to emphasize this point if the BRT proposal is selected since we believe severe traffic congestion would result from the elimination of another lane.*

   Response: See response to comment #4.

8. *Third, we would like to see a more detailed analysis and explanation of how businesses in Waikiki would obtain freight and goods service. The reduction of lanes and elimination of loading areas will certainly complicate operations of Waikiki businesses. The outcomes of this type of analysis must be integrated into any final Transportation Plan.*

Response: See response to comment #5.

Moreover, according to the traffic analysis presented in the FEIS Table 4.2-8, the level of congestion on Kalakaua Avenue will not be significantly different in 2025 with or without the BRT. Tour busas will still be able to drop off and pick up passengers at designated loading zones.

9. *Finally, we would like to see a more detailed analysis of the BRT plan of Kuhio Ave. It appears that Kuhio would be reduced to four (4) moving lanes. One would be dedicated to the BRT, one would handle local buses, trucks and automobiles moving in a Diamondhead direction. Two lanes would accommodate local buses, trucks and automobiles moving in an Ewe direction. This configuration seems likely to create serious movement problems.*

Response: Since publication of the MIS/DEIS, the City has worked with the Waikiki Working Group and other interested parties in the Kuhio Avenue corridor to redesign the BRT in Waikiki to minimize impacts on vehicular traffic, and to maximize opportunities for widening sidewalks on Kuhio Avenua. Changes include providing for a minimum of a combined eight feet of sidewalk widening on one or both sides of Kuhio Avenue. Within the remaining roadways, the lane designation on Kuhio Avenue would be one 18-foot-wide mixed traffic lane in each direction, a shared BRT/bus and trolley lane adjacent to the mauke curb, and left- or right-turn pockets at key intersections. The impacts of this configuration on traffic conditions along Kuhio Avenue are shown in Table 4.3-13 of the FEIS.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

HAWAII TEAMSTERS AND
ALLIED WORKERS, LOCAL 996
Affiliated with the International Brotherhood of Teamsters

1817 Hart Street
Honolulu, Hawaii 96819-3205

Telephone: (808) 847-6633
Fax: (808) 842-4575

November 14, 2000

Written Testimony of Robert Costa Sr., on behalf of the Hawaii Teamsters and Allied Workers, Local 996, to the City Council Transportation Committee on the Primary Corridor Transportation Project.

Chair Bainum and Members of the City Council Transportation Committee,

I would like to encourage the committee to consider the Transportation System Management alternative.

As a city bus driver for twenty five years, I have seen the traffic on the H-1 freeway, Dillingham Blvd. and King Street increase dramatically, and believe that any restriction of traffic on these streets would be a nightmare. The BRT alternative cuts the number of traffic lanes in half and will result in a traffic disaster.

As an example, the recent construction at King and Dillingham backed up traffic, sometimes to Kapalama canal on Dillingham.

The Transportation System Management alternative will use our present system more efficiently. As a bus driver, I see many areas where small changes could lead to big improvements in traffic flow.

In closing, as a city bus driver who drives these traffic corridors on a regular basis, I would be glad to make myself available for the committee to talk about traffic situations I encounter every day.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Robert Costa, Sr.
Hawaii Teamsters and Allied Workers, Local 996
1817 Hart Street
Honolulu, Hawaii 96819

Dear Mr. Costa:

Subject: Primary Corridor Transportation Project

This responds to your oral testimony at the November 14, 2000 Special Transportation Committee Meeting, and your November 14, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I would like to encourage the committee to consider the Transportation System Management alternative.*

   Response: Comment noted. It states the commenter's preference for an LPA.

2. *As a city bus driver for twenty five years, I have seen the traffic on the H-1 freeway, Dillingham Blvd. And King Street increase dramatically, and believe that any restriction of traffic on these streets would be a nightmare. The BRT alternative cuts the number of traffic lanes in half and will result in a traffic disaster.*

   Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there with or without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

3. *The Transportation System Management alternative will use our present system more efficiently. As a bus driver, I see many areas where small changes could lead to big improvements in traffic flow.*

   Response: Comment noted. It states the commenter's preference for an LPA.

4. *In closing, as a city bus driver who drives these traffic corridors on a regular basis, I would be glad to make myself available for the committee to talk about traffic situations I encounter every day.*

   Response: Thank you for your comments and offer of assistance.

Submitted by the Hawaii Teamsters Local 996 for Special Transportation Committee meeting on 11/14/00 on Res. 00-249, Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project.

609 signatures

Petition No. 24

PETITION TO SUPPORT THE TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVE

PRINT NAME	SIGNATURE	ADDRESS
Frank Kawamura	Frank Kawamura	1467 Ilima Lp.
Josephine Matsu	Josephine M Kau	1467 Ilima Lp.
Roy Hamamoto	Roy Hamamoto	1088 Ala Napunani St.
Naomi Fuchi	Naomi Fuchi	1495 Kinau St #28
Valerie Salmon	Valerie Salmon	94-283 Kuluawahine St.
Charlene Ostrom	Charlene Ostrom	94-283 Kuluawahine St.
Shanti Narsai	Shanti Narsai	94-311 Hoomoe St #2E7
ELMER LARANANA	Elmer Laranana	98-129 Oihana Pl. Waipahu 96797
Cathy Okamura	Cathy Okamura	94-715 Kaahiost.
Glen Takahashi	Glen Takahashi	95-225 Waikoloa Pl. Mililani
Jerilynn Tom	Jerilynn Tom	1707 Poki St. #207 Hon. HI 96822
Paula Yamachika	Paula Yamachika	99-177 Aiea Ka'ihu Aiea, HI 96701
SANDRA YOSHIKAWA	Sandra Yoshikawa	1442 Lusitana #1004 Hon. HI 96813
ELMER NAKAYA	Elmer Nakaya	1442 Lusitana #1004 Hon. HI 96813
[illegible]	[illegible]	94-1046 Kuluawahine St. Waipahu HI

SUBMITTED WITH CLERK'S OFFICE

AR00015590

We will sand you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

HAWAII TEAMSTERS AND
ALLIED WORKERS, LOCAL 996
Affiliated with the International Brotherhood of Teamsters.

1817 Hart Street
Honolulu, Hawaii 96819-3205

Telephone: (808) 847-6633
Fax: (808) 842-4575

November 6, 2000

Public Comment Regarding DEIS

On October 26, 2000 testimony was held at the City Council Chamber to determine the alternative transit investments that could and will affect transportation, traffic congestion, and the environment in communities between Kapolei and the University of Hawaii.

The three options are the No-Build Alternative, the Transportation System Management Alternative (TSM), and the Bus Rapid Transit (BRT).

Teamster Local 996 President Mel Kahele and the Assistant to the President, Pat Kahele, gave testimony in defense of the TSM project citing the benefits of that alternative. Our current system costs taxpayers $122 million annually (TheBus and paratransit). The BRT Alternative will cost $181.7 million plus the $122 million. What's going to happen if and when we need to add additional corridors to connect to the Downtown area from the Windward side? Do we now spend another $181+ million toward the construction, maintenance, and the operations of another BRT system? How many more additions to the BRT will be needed to finally relieve the congestion if at all possible? And how many billions will it cost upon completion?

"Let's not put politics before reasonableness", stated President Kahele. "The hub and spoke can and will work, we need more parking for the riders... why not support a system that has already been proven?" President Kahele encourages everyone to please sign a petition to support this TSM System and to send it to the HTAW Local 996 office located at 1817 Hart Street, Honolulu, Hawaii 96819 or to the Department of Transportation Services at 711 Kapiolani Blvd., Ste. 1200, Honolulu, Hawaii 96813.

T. K. Hannemann
Business Representative

HAWAII TEAMSTERS AND
ALLIED WORKERS, LOCAL 996
Affiliated with the International Brotherhood of Teamsters.

1817 Hart Street
Honolulu, Hawaii 96819-3205

Telephone: (808) 847-6633
Fax: (808) 842-4575

November 13, 2000

Good Morning Chair Bainum, Transportation Committee,

My name is T.K. Hannemann, Business Representative from the Hawaii Teamsters, Local 996. I am here today to give testimony in regards to Resolution 00-249-Section of Locally Preferred Alternative for the Primary Corridor Transportation Project. The Union's position that this committee take a serious look at different alternatives to better suite our transportation problems in Honolulu. As a former bus driver with The Bus, I for one know of the increasing traffic and horrible conditions that residents of this city face everyday.

We cannot support a fully integrated mass transit system, instead we would rather see more study be put into the (TSM) Transportation System Management Alternative. We need to increase services into our brand new hub-n-spoke system, which was shoved down our throats just a few months ago. We need to nurture this project, provide more park-n-ride facilities, more routes and eventually more buses. We do not need to spend some 188 million in a BRT system that may look good, but cost too much. Let's be reasonable and equitable and concentrate our efforts toward the TSM.

Thank you for your time,

T.K. Hannemann
Business Representative
Hawaii Teamsters, Local 996

Copy to: Mel Kahele, President
Hawaii Teamsters Union, Local 996

HAWAII TEAMSTERS AND
ALLIED WORKERS, LOCAL 996
Affiliated with the International Brotherhood of Teamsters.

1817 Hart Street
Honolulu, Hawaii 96819-3205

Telephone: (808) 847-6633
Fax: (808) 842-4575

APR 2 0 2002

April 20, 2002

Good afternoon distinguished guests of the Federal Transportation Administration:

My name is T. K. Hannemann, Business Representative of the Hawaii Teamsters and Allied Workers, Local 996. Thank you for making this trip across the pacific ocean to our beautiful "Aloha State".

I am here this afternoon to testify against the implementation of the Bus Rapid Transit. The City Administration, The Department of Transportation Services and The Honolulu City Council have bought into this project, they most certainly have painted a glorious picture, to you of the benefits it will provide the commuters of this island.

For nearly a year and a half these following questions have been posed through different public venues orchestrated by the DTS to nix any and all opposition to this project. My entrusted colleagues please listen to these questions and ask yourselves if the picture painted previously is real.

(1) How will the BRT impact members of the Hawaii Teamsters Local 996? More specifically bus operators and Handi-Van drivers at Oahu Transit Services, currently totaling more than 1, 000. This project will dedicate and take away specific traffic lanes along major thorough fares, such as Dillingham Blvd., Kapiolani Blvd., King Street, Ala Moana Blvd, Pensacola Street, Kalakaua and Kuhio Avenues.

(2) How will the BRT impact Teamster Trucking Companies who depend on timely, delivery of goods and services, that cannot happen when traffic lanes will be designated solely for the BRT, leaving in some areas one lane in each direction for shared public use? All of these thoroughfares cannot be expanded, infrastructure, surrounding businesses, and communities have been in place for decades. What this project will do to our existing public transportation system is cause everyone else besides the BRT, to share the left over traffic lanes with private automobiles, TheBus, The Handi-Van and Trucking Companies. Traffic will be a total nightmare.

(3) What will the impact be to surrounding neighborhoods along the in-town segment when traffic causes vehicles to travel on side streets to try and get to their destinations at a quicker pace?

(4) With a price tag currently at $1.069 billion, how much will the taxpayers have to pay?

(5) With a project of this magnitude, have these three questions should be asked?

Do we need it?
Can we afford it?
Can we maintain it?

Thank you for your time.

T. K. Hannemann
Business Representative
HTAW Local 996

cc: Mel Kahele, President, HTAW Local 996

HAWAII TEAMSTERS and ALLIED WORKERS UNION, LOCAL 996
COMPANIES THAT WILL BE AFFECTED BY THE
IMPLEMENTATION OF THE "BRT".

ALOHA PETROLEUM, LTD.
ANDERSON NEWS CORPORATION
ARMOUR SWIFT – ECKRICH
BETTER BRANDS, LTD.
BOC GASSES/GASPRO
C.W. CARTER, CO
CITY MILL
COYNE MATTRESS, CO.
EVERGREEN HILLSIDE DAIRY
GOLDEN STATE FOODS CORP
HAWAII TRANSFER COMPANY
HONOLULU WOOD TREATING CO
HONSADOR LUMBER CORP
FOREMOST DAIRIES
ISLAND COMMODITIES
JOHNSON BROS. OF HAWAII, INC.
MARTIN WAREHOUSING
McKESSON DRUG CO.
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DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05412R

November 13, 2002

Mr. T. K. Hannemann, Business Representative
Hawaii Teamsters and Allied Workers, Local 996
1817 Hart Street
Honolulu, Hawaii 96819

Dear Mr. Hannemann:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplement Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your oral testimony at the November 6, 2000 Special Transportation Committee Meeting, your November 13, 2000 letter, and your November 14, 2000 submission regarding the MIS/DEIS. Part B responds to your oral testimony at the April 20, 2002 public hearing regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *Teamster Local 996 President Mel Kahele and the Assistant to the President, Pat Kahele, gave testimony in defense of the TSM project citing the benefits of that alternative.*

   Response: Comment noted. It states the commenter's preference for an LPA.

2. *Our current system costs taxpayers $122 million annually (TheBus and paratransit). The BRT Alternative will cost $181.7 million plus the $122 million. What's going to happen if and when we need to add additional corridors to connect to the Downtown area from the Windward side? Do we now spend another $181+ million toward the construction, maintenance, and the operations of another BRT system? How many more additions to the BRT will be needed to finally relieve the congestion if at all possible? And how many billions will it cost upon completion?*

   Response: The $181.7 million in O&M cost shown in the MIS/DEIS was for the In-Town BRT as well as the entire bus and TheHandi-Van systems (in FY 2010 year of expenditure dollars). The No-Build Alternative O&M cost was shown to be $163.6 million in FY 2010. The difference for a vastly superior system (BRT Alternative) would be $18.1 million, not $122 million. Also, the Refined LPA (BRT Alternative) includes improvements not only in the Primary Corridor but island-wide. The projected O&M costs in the FEIS are comparable to those in the MIS/DEIS.

3. *The Union's position that this committee take a serious look at different alternatives to better suit our transportation problems in Honolulu. As a former bus driver with TheBus, I for one know of the increasing traffic and horrible conditions that residents of this city face everyday.*

Response: Chapter two of the FEIS provides a description of the various alternatives that were initially considered including: The No-Build Alternative, Transportation System Management (TSM) Alternative, the Bus Rapid Transit (BRT) Alternative, the Light Rail Transit (LRT) Alternative, and the Sand Island Scenic Parkway (SISP). This initial list of alternatives resulted from Rounds 1 and 2 of the Oahu Trans 2K meetings, public agency input and technical analysis.

A Fully Grade-Separated Transit Alternative, and a Highway Alternative to Transit were eliminated early in these rounds by the public because they were deemed not responsive to the project's purpose and need, and were cost prohibitive. The No-Build, TSM, and BRT Alternatives are analyzed in the MIS/DEIS. The BRT Alternative emerged as the Locally Preferred Alternative due to its superior performance for most criteria. Other alternatives were considered but eliminated due to failure to satisfy purpose and need requirements and/or due to other concerns such as public opposition, significant environmental impacts and financial feasibility.

4. *We cannot support a fully integrated mass transit system, instead we would rather see more study be put into the (TSM) Transportation System Management Alternative. We need to increase services into our brand new hub-and-spoke system, which was shoved down our throats just a few months ago. We need to nurture this project, provide more park-and-ride facilities, more routes and eventually more buses. We do not need to spend some 188 million in a BRT system that may look good, but cost too much. Let's be reasonable and equitable and concentrate our efforts toward the TSM.*

   Response: Comment noted. It states the commenter's preference for the LPA.

Part B – SDES Comments

5. *How will the BRT impact members of the Hawaii Teamsters Local 996? More specifically bus operators and Handi-Van drivers at Oahu Transit Services, currently totaling more than 1,000. This project will dedicate and take away specific traffic lanes along major thoroughfares, such as Dillingham Blvd., Kapiolani Blvd., King Street, Ala Moana Blvd, Pensacola Street, Kalakaua and Kuhio Avenues.*

   Response: There will be a 27 percent increase in the number of bus drivers needed with the Refined LPA compared to the No Build Alternative. By 2025 there will be a 53 percent increase in the number of bus drivers compared to today.

6. *How will the BRT impact Teamster Trucking Companies who depend on timely, delivery of goods and services, that cannot happen when traffic lanes will be designated solely for the BRT, leaving in some areas one lane in each direction for shared public use? All of these thoroughfares cannot be expanded, infrastructure, surrounding businesses, and communities have been in place for decades. What this project will do to our existing public transportation system is cause everyone else besides the BRT, to share the left over traffic lanes with private automobiles, TheBus, TheHandi-Van and Trucking Companies. Traffic will be a total nightmare.*

   Response: As pointed out in Chapter 4 of the FEIS, it is not the conversion of lanes that will create congestion. The congestion for motorists (including truck drivers) will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

7. *What will the impact be to surrounding neighborhoods along the in-town segment when traffic causes vehicles to travel on side streets to try and get to their destinations at a quicker pace?*

   Response: As traffic grows in the future, the pressure for vehicles to utilize side streets will probably increase. This is true whether BRT is implemented or not. The Refined LPA (BRT) provides a transit alternative that will help to relieve some of this pressure. The Refined LPA evaluated in the FEIS is modified from the concept described in the DEIS to include more semi-exclusive and mixed flow segments. Some of these changes were in response to impacts to traffic operations. In other segments, exclusive BRT lanes have been retained since they are crucial for the BRT to operate effectively. In these locations, the City has and will continue to work with the community to minimize the use of side streets by through vehicles.

8. *With a price tag currently at $1.069 billion, how much will the taxpayers have to pay?*

   Response: $359.2 million in City General Obligation Bond proceeds will be needed for the project, which includes the entire bus system.

9. *With a project of this magnitude, have these three questions should be asked?*

   Do we need it?
   Can we afford it?
   Can we maintain it?

   Response: As documented in the FEIS the answer is yes to all three questions.

10. *I was under the impression that, like the gentleman that spoke before me, that I would have the audience of somebody from the Federal Transit Administration here. Thus my testimony is formulated, I guess, to the stenographer, but the FTA will get this testimony.*

    Response: The FTA did receive a copy of the April 20, 2002 public hearing transcript and has reviewed all the MIS/DEIS and SDEIS comments and responses.

11. *Good afternoon, distinguished guests of the FTA. My name is T. K. Hannemann, Business Representative of the Hawaii Teamsters and Allied Workers, Local 996. Thank you for making this trip across the Pacific Ocean to our beautiful Aloha State.*

    Response: No response required.

12. *I'm here this afternoon to testify against the implementation of the BRT. The City Administration, the Department of Transportation Services, and the Honolulu City Council have bough into this project. They most certainly have painted a glorious picture to you of the benefits it will provide the commuters of this island.*

    Response: Comment noted.

13. *For nearly a year and a half, these following questions have been posed through different public venues orchestrated by the DTS to nix any and all opposition to this project. My entrusted colleagues, please listen to these questions and ask yourselves if the picture painted previously is real.*

Response: It is unrealistic to think that the City is capable of nixing any and all opposition to the project.

14. *How will the BRT impact members of the Hawaii Teamsters Local 996? More specifically, but operators and the Handi-Van drivers at Oahu Transit Services, currently totaling more than a thousand. This project will dedicate and take away specific traffic lanes along major thoroughfares, such as Dillingham Boulevard, Kapiolani Boulevard, King Street, Ala Moana Boulevard, Pensacola, Kalakaua and Kuhio Avenues.*

Response: See response to comment #5.

15. *How will the BRT impact Teamster trucking companies who depend on timely delivery of goods and services, that cannot happen when traffic lanes will be designated solely for the BRT, leaving in some areas one lane in each direction for shared public use?*

Response: See response to comment #6.

16. *All of these thoroughfares cannot be expanded. Infrastructure, surrounding businesses and communities have been in place for decades. What this project will do to our existing public transportation system is cause everyone else, besides the BRT, to share the leftover traffic lanes. Traffic will be a total nightmare.*

Response: See response to comment #6.

17. *What will the impact be to surrounding neighborhoods along the in-town segment when traffic causes vehicles to try and get on side streets to get to their destinations at a quick pace?*

Response: See response to comment #7.

18. *With the price tag currently at over a billion dollars, how much will the taxpayers have to pay? Anytime there's a project of this magnitude with the price tag over a billion dollars, three essential questions should be answered. These questions are, as I've posed previously for over a year: One, do we need it? Two, can we afford it? Most importantly, three, can we maintain it?*

Response: $359.2 million in City General Obligation Bond proceeds will be needed for the project, including bus acquisitions and other improvements for the entire system. Yes, more passenger capacity and more efficient and timely service is needed - which can be most cost effectively carried out with BRT. Second, yes, the financial plan shows that BRT can be paid for and is within the financial capacity of the City. Thirdly, the plan accommodates the maintenance of the system, including the use of federal grant funds for Preventive Maintenance.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

HAWAII TEAMSTERS AND
ALLIED WORKERS, LOCAL 996
Affiliated with the International Brotherhood of Teamsters

1817 Hart Street
Honolulu, Hawaii 96819-3205

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November 13, 2000

Written Testimony of Mel Kahele, on behalf of the Hawaii Teamsters and Allied Workers, Local 996, to the City Council Transportation Committee on the Primary Corridor Transportation Project

Chair Bainum and Members of the City Council Transportation Committee,

I would like to once again encourage the Committee to consider the Transportation System Management (TSM) alternative. Having previously testified on the cost factor issue, I would now like to elaborate on the practicalities of the various options. Having members in various industries whose jobs it is to travel our roadways on a daily basis, whether as bus drivers, truck drivers, and people who are simply in route to and from work, it appears prudent that the TSM is the most realistic and balanced alternative. It focuses on enhancing the system to better address the needs of those who choose to or do not have any choice but to use public transportation. It is undeniable that there is also a segment of the public who use their personal automobile to conduct business, as well as those of the public who, despite how attractive public transportation is made to be, will continue to make the personal choice to drive their automobiles. The BRT alternative operates under the premise that if you build it, they will come. However, if the BRT alternative negatively impacts upon not only automobile drivers but those who are on the roadways as part of their job, and if it turns out that the costly BRT is underutilized, then it will be a lose-lose situation. We encourage the improvement of the existing transit system through the TSM alternative, and thank this Committee for its consideration.

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Mel Kahele
Hawaii Teamsters and Allied Workers, Local 996
1817 Hart Street
Honolulu, Hawaii 96819

Dear Mr. Kahele:

Subject: Primary Corridor Transportation Project

This is in response to your October 26 and November 13, 2000 letters regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I believe with the system that we presently got in effect, the hub and spoke, we need to tweak it up a little bit. We have already put the hub and spoke in effect and...I believe it's running beautifully.*

   Response: DTS continually reevaluates the level of service provided by the existing bus system and has begun to reconfigure the existing radial network of bus routes to a hub-and-spoke configuration. An integral part of the Refined LPA is a hub-and-spoke bus network that would connect with Regional and In-Town BRT systems, providing the hub-and-spoke network with a fast, high-capacity transit service corridor.

2. *The problem is, by some of the people that have rode the bus and that are intending on riding the bus, is that there's no parking. There's no parking for the people that's out there in Kapolei, in other areas that are willing to ride the bus into town and catch the spokes. But there's no darn area where they can park their vehicles. They either have to walk down to where the hub is at, or, again, get dropped off. So, again, that's an area that needs to be fixed.*

   Response: Additional park-and-ride facilities are being planned at various locations throughout Oahu, some of which will be provided as part of the Refined LPA.

3. *I believe the present service is workable, is doable and the money that we've spent, the taxpayers, I believe we shouldn't waste it. We should try to keep the present system in effect. The BRT is a big fantasy. And I'm not only speaking on behalf of Mel Kahele, I'm also speaking on behalf of a lot of the bus drivers because they are presently the people that's transporting the passengers to and from Point A to Point B and across the city of Honolulu.*

   Response: As shown in the FEIS analyses, the present system (No-Build Alternative) would not meet future travel needs and would result in greater environmental impacts than the Refined LPA for most factors. The Refined LPA is also shown to be the most cost-effective when compared to the No-Build and TSM Alternatives.

4. *And, I don't believe the BRT plan has been thoroughly thought out and the impact that it's going to have to the city of Honolulu. Again, let's not put politics before reasonableness and, I believe, City Council will do the right thing on November 29.*

   Response: Project planning has been ongoing for many years and potential impacts have been studied in detail. The project began with public outreach in 1998, the MIS/DEIS was issued in August 2000, and the Locally Preferred Alternative (LPA) was selected by the City Council in November 2000. The selection of the Refined LPA is the result of extensive public involvement.

5. *I would like to once again encourage the Committee to consider the Transportation System Management (TSM) alternative.*

   Response: Comment noted. It states the commenter's preference for a LPA.

6. *Having previously testified on the cost factor issue, I would now like to elaborate on the practicalities of the various options. Having members in various industries whose jobs it is to travel our roadways on a daily basis, whether as bus drivers, truck drivers, and people who are simply in route to and from work, it appears prudent that the TSM is the most realistic and balanced alternative. It focuses on enhancing the system to better address the needs of those who choose to or do not have any choice but to use public transportation.*

   Response: Comment noted. It states the commenter's preference for a LPA.

7. *It is undeniable that there is also a segment of the public who use their personal automobile to conduct business, as well as those of the public who, despite how attractive public transportation is made to be, will continue to make the personal choice to drive their automobiles. The BRT alternative operates under the premise that if you build it, they will come. However, if the BRT alternative negatively impacts upon not only automobile drivers but those who are on the roadways as part of their job, and if it turns out that the costly BRT is underutilized, then it will be a lose-lose situation.*

   Response: As shown in the FEIS analysis, the present system (No-Build Alternative) would not meet future travel needs and would result in greater environmental impacts than the Refined LPA for most factors. The Refined LPA is also shown to be more cost-effective when compared to the TSM Alternative. The purpose of the Refined LPA is to provide an attractive, affordable, dependable transportation option to the private automobile. The Refined LPA increases the people carrying capacity throughout the primary corridor, reduces congestion, and preserves and improves the quality of life of Oahu's residents by improving transportation linkages within the primary corridor and between Kapolei and the urban core.

8. *We encourage the improvement of the existing transit system through the TSM alternative, and thank this Committee for its consideration.*

   Response: Comment noted. It states the commenter's preference for a LPA.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
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CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Pat Kahele
Hawaii Teamsters and Allied Workers, Local 996
1817 Hart Street
Honolulu, Hawaii 96819

Dear Mr. Kahele:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 26, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *In regard to the BRT, it is, I agree with the Outdoor Circle, and a few other speakers that did come up here that it is an untested system.*

   Response: Technologies proposed for the In-Town BRT include an embedded plate technology (EPT) which consists of electric vehicles powered by a wayside traction power delivery system or hybrid electric propulsion system where energy for the traction power is carried on-board the vehicle. EPT vehicles would emit zero emissions. Hybrid electric vehicles would be low-emission vehicles because their diesel engines would always be operating at efficient levels.

   Both candidate technologies are expected to be service proven by the time a decision on technology is to be made in 2008. Hybrid electric buses are already in revenue service in a number of cities, and EPT is in revenue testing in Trieste, Italy. Hybrid vehicles will be used for the initial operations and EPT installed in 2010.

2. *It's going to be costing, with the BRT, $181.7 million. The current system cost $122 million. That's going to be added to the current $122 million. So what's going to happen in the future? Are we looking at another system for not just this corridor, but what about the Windward corridor? I mean, we have all these different areas that are expanding, that the population is building up. We have Kaneohe. We have Kailua. We have Waimanalo. I mean, we have all these different areas that traffic is building up and it's not decreasing. It's getting worse.*

   Response: The Operating and Maintenance Costs shown in the FEIS for all three Alternatives are for the entire island-wide transit system not just the Primary Transportation Corridor.

3. *But, this system, this hub and spoke, it was put here and it seems to be a good system. So far, there's some complaints sure. It's still an untested system. As of yet, more people are riding it. Stilly you have complaints. Like you do with every system out there. Give this system a chance. Let this system prove itself. And maybe from there, expand the hub and spoke system. We're looking at eleven for the BRT. I mean what's...We're looking at spending all these millions of dollars to expand the system that is already and currently can be expandable.*

   Response: Conversion to a hub-and-spoke service pattern has already begun and would have continued to be implemented regardless of which Alternative was selected. It will be most effective however with the Refined LPA.

4. *Anyway, my opinion I'm for the TSM. Keeping the system the way it is. Not for the BRT.*

   Response: Comment noted. It is stating a preference for the LPA.

5. *But at the same time, you're advocating setting up a corridor of 11.2 miles at a cost of $181.7 million and that's current cost or is it $98 I'm not too sure. But, how much is it going to be five years from now when we actually might even consider the system. Is it gonna be like the old system. Start at $1.2, end it at $3.4 billion.*

   Response: The In-Town BRT capital cost estimate for a 12.8 mile system is $225 million in 2002 dollars exclusive of EPT, and $323 million when EPT costs are included.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

FAX TRANSMISSION

HAWAI`I'S THOUSAND FRIENDS
305 HAHANI STREET, PMB 282
KAILUA, HAWAI`I 96734
ph/fax 808-262-0682

To: Cheryl Soon, Director DTS Date: 11/6/00

From: Donna Wong Page: 2

Subject: Primary Corridor Transportation Project
Major Investment Study/Draft Environmental Impact Statement

COMMENTS:

MAHALO!

HAWAI'I'S THOUSAND FRIENDS

Ke aloha o ko kākou ʻāina, ʻOla ka mana kū paʻa. Pānoanoa ka ʻāina, Mānoanoa ka poʻe.
The Love of our land, is the power for us to stand fast. Rare is the land, many is the people.

November 2, 2000

Ms. Cheryle Soon, Director
Department of Transportation services
711 Kapi'olani Blvd., Ste. 1200
Honolulu, Hawai'i 96813

RE: Primary Corridor Transportation Project Major Investment Study and Draft Environmental Impact Statement

Hawai'i's Thousand Friends has the following concerns and questions.

- What is the rational behind the adoption of a transportation plan before the Primary Urban Center Development Plan is adopted and development/growth patterns known? It is premature to base conclusions on a *draft* plan.
- It is premature to encourage "development" near transit centers before the Development Plan that directs and coordinations transit and growth has been adopted and the need for and locations of transit centers identified. This cart before the horse approach invites urban sprawl.
- The DEIS is incomplete because both a botanical and cultural survey were not conducted. These surveys must be completed and submitted for public review before the FEIS is accepted.
- Since the proposed BRT could potentially impact existing traffic patterns a comprehensive traffic congestion study must be conducted and submitted for public review before the FEIS is accepted.
- The DEIS gave no reference to coordination between this plan, the Integrated Resource Plan for Water and the Development Plan. How are these three plans being used to provide a comprehensive road map for growth?
- Impacts from the widening of Ward Avenue and reduction of two lanes (dedicated to In-Town BRT) on Kapi'olani Boulevard and Kuhio Avenue are missing from the DEIS. Since these streets are major traffic corridors and

public land from Thomas Park may be needed for lane expansion, details and drawings showing changes and impacts must be completed and submitted for public review before the FEIS is accepted.

- Since substations will be "required" every 1/2 mile the exact location, visual impacts and aesthetics of the substations must identified and submitted for public review before the FEIS is accepted.

- Will land need to be condemned to build the substations? If so what is the coast analysis for land purchase?

The move toward fixed rail is a major public policy shift and a major investment of public money. Therefore, we must venture into this undertaking carefully and fully informed.

The DEIS and Plan are inadequate and do not provide enough information on which to base a sound planning decision.

DEPARTMENT OF TRANSPORTATION SERVICES

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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05416R

November 13, 2002

Ms. Donna Wong
Hawaii's Thousand Friends
305 Hahani Street, PMB 282
Kailua, Hawaii 96734

Dear Ms. Wong:

Subject: Primary Corridor Transportation Project

This is in response to your November 2, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *What is the rational (sic) behind the adoption of a transportation plan before the Primary Urban Center Development Plan is adopted and development/growth patterns known? It is premature to base conclusions on a draft plan.*

   Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. Those are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

2. *It is premature to encourage "development" near transit centers before the Development Plan that directs and coordinations (sic) transit and growth has been adopted and the need for and locations of transit centers identified. This cart before the horse approach invites urban sprawl.*

   Response: See response to comment #1.

3. *The MIS/DEIS is incomplete because both a botanical and cultural survey were not conducted. These surveys must be completed and submitted for public review before the FEIS is accepted.*

   Response: A panel of cultural experts was convened to identify and address cultural issues. A cultural report was prepared for the Final EIS. A comprehensive botanical survey was not conducted because the proposed BRT alignment will travel on existing roads and/or through highly urbanized areas. Instead, a detailed tree survey was conducted to assess potential impacts to urban street trees, and a report of impacts has been prepared. The results of both the cultural assessment and the tree survey are included in the FEIS. Public review of these new surveys will not be possible before the FEIS is accepted.

4. *Since the proposed BRT could potentially impact existing traffic patterns, a comprehensive traffic congestion study must be conducted and submitted for public review before the FEIS is accepted.*

   Response: Chapter 4 of the FEIS documents a comprehensive traffic analysis which has been prepared based on public comments on the MIS/DEIS, refinements in the BRT alignment and the latest population and employment forecasts from DBEDT.

5. *The DEIS gave no reference to coordination between this plan, the Integrated Resource Plan for Water and the Development Plan. How are these three plans being used to provide a comprehensive road map for growth?*

   Response: The PUC DP and the IRP for Water are consistent City and County plans. The FEIS is consistent with the DP, and therefore also with the IRP for Water.

6. *Impacts from the widening of Ward Avenue and the reduction of two lanes (dedicated to In-Town BRT) on Kapiolani Boulevard and Kuhio Avenue are missing from the DEIS. These streets are major traffic corridors and public land from Thomas Park may be needed for lane expansion, details and drawings showing changes and impacts must be completed and submitted for public review before the FEIS is accepted.*

   Response: The traffic analysis in the FEIS includes impacts to Ward Avenue, Kapiolani Boulevard, and Kuhio Avenue.

   The In-Town BRT alignment as described in the MIS/DEIS has been revised. The changes in alignment were addressed in the Supplemental DEIS that was circulated in Spring 2002. In the Refined LPA, the BRT will continue on King Street and turn makai on Pensacola Street. This will not affect Thomas Square since the revised alignment does not require the widening of Ward Avenue or King Street outside of the existing right-of-way.

7. *Since substations will be "required" every 1/2 mile the exact location, visual impacts and aesthetics of the substations must [be] identified and submitted for public review before the FEIS is accepted.*

   Response: The visual impacts of the traction power supply stations (TPSS) are discussed in Section 5.4 of the FEIS. The substations will only be required if embedded plate technology (EPT) is used.

8. *Will land need to be condemned to build the substations? If so what is the coast (sic) analysis for land purchase?*

   Response: If EPT is used, additional right-of-way will be needed for some of the TPSS. The estimated cost of the Refined LPA as shown in the FEIS does not include costs for land acquisition as specific sites for the TPSS have not been finalized. A detailed land acquisition cost analysis will be done at the time a decision needs to be made on whether to proceed with EPT in 2008.

9. *The move toward fixed rail is a major public policy shift and a major investment of public money. Therefore, we must venture into this undertaking carefully and fully informed.*

   Response: Comment noted. While the Refined LPA is a Bus Rapid Transit not a rail system, DTS agrees with the intent of this statement.

10. *The DEIS and Plan are inadequate and do not provide enough information on which to base a sound planning decision.*

    Response: The MIS/DEIS and conceptual drawings were prepared at the level required to select an LPA. The FEIS includes additional documentation and refinements, and addresses comments received on the MIS/DEIS.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Hawaii Transportation Association
Driving Hawaii's Economy

October 5, 2000

TESTIMONY BEFORE THE CITY AND COUNTY OF HONOLULU'S COUNCIL COMMITTEE ON TRANSPORTATION ON THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you Chairman Balnum and committee members. I am Gareth Sakakida, Managing Director of the Hawaii Transportation Association with 360 members involved in the commercial ground transportation industry (motor carriers).

HTA's primary concern with the Transportation System Management and the Bus Rapid Transit concepts is the loss of loading zones anywhere along the project's line, and especially in the Waikiki and Downtown areas.

Loss of loading zone space affects the ability of the motor carriers to feed the needs of the businesses, patrons, and employees of the Waikiki and Downtown area reliably and continuously. The current inventory of loading zones is already inadequate in both areas.

Downtown loading zones are constantly filled with private automobiles forcing trucks to double park in order to make deliveries. Whenever a loading zone can be found, a driver tries to make so many deliveries from that one zone, because he won't find another, that others must continuously circle the area waiting for something to open up.

Although Waikiki's mix of needs is very similar, the sheer volume makes the situation much worst than Downtown. Exacerbating this is the need for both passenger and freight loading zones.

Plans for the transit system to utilize the Kalakaua Avenue curbside lane is a tremendous concern if the lane is to be an exclusive use lane. The mauka and makai curbside lanes of Kalakaua serve as THE major loading zone area to service all street front customers since the majority of properties failed to provide adequate, or any, off street loading facilities.

Tour buses especially must use the makai curb or risk injury to passengers if they must unload them into traffic while parked on the mauka curb.

The City's DTS long ago acknowledged the problem with a short inventory of loading zone space and conceived the plan to allow the use of long stretches of Kalakaua and Kuhio Avenue curb sides to augment loading and unloading capacity.

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Motor carriers are very conscientious about serving their customers in a timely fashion. They do not have time to be driving in circles waiting for a loading zone to open up. Besides, there are so many others who also need the space that the probability of getting one is not good.

So when the paucity of legal loading zones prevent them from servicing their customers, they will do whatever they can to accomplish the service. In short, this means double parking, parking on sidewalks, etc., taking a chance that they won't get caught. It becomes easier to pay a fine than to have the customer perceive you cannot provide the necessary service.

In conclusion, HTA does not oppose improvements to Oahu's transit system. However, we are concerned about the loss of an already scarce asset - the loading zone. It does not make too much sense to expedite people movement if trucks and buses must park wherever they can, just for a minute, to get their job done and I nthe process inhibit traffic.

Thank you.

AR00015601

Hawaii Transportation Association
Driving Hawaii's Economy

November 6, 2000

Ms. Cheryl D. Soon
Director
City and County of Honolulu
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

This response to the Primary Corridor Transportation Project MIS/Draft EIS focuses on Waikiki, which is a primary place of business for the members of the Hawaii Transportation Association (HTA) Passenger Carrier Conference. Every major private passenger carrier firm serving the visitor industry is a member of this Conference.

The HTA Passenger Carrier Conference supports the Bus Rapid Transit (BRT) alternative, provided that it does not include the proposed Waikiki segment. The reasons for this recommendation are discussed below.

The primary concern of HTA's Passenger Carrier Conference with the MIS/DEIS for the Primary Corridor Transportation Project is that it does not address the negative impact the BRT will have on those visiting Waikiki and on the private passenger carriers which serve them. The MIS/Draft EIS document does not adequately demonstrate an understanding of how the visitor industry operates in general nor how the passenger carriers that serve that industry operate in particular.

Federal law is very clear that in planning new transportation programs to be financed from federal funds, consideration must be given to preserving and utilizing existing transportation facilities, both public and private. Furthermore, in planning such new systems, federal law requires that the overall social, economic, energy and environmental impacts be considered. These federal objectives have not been sufficiently achieved in the MIS/Draft EIS.

The MIS/Draft EIS does not address the impact of any of the three alternatives it puts forth on privately owned and operated passenger carriers. It does not discuss whether pursuing the no-build, the TSM or the BRT alternatives will reduce the revenues of any of these businesses. There is no discussion of whether City and State tax revenues derived from passenger carriers will be reduced as a result of the impact of pursuing any of the three alternatives.

The crucial element in the private enterprise passenger carrier industry is service. Central to service is the convenience of the customer who is visiting Hawaii. It means:

- being able to pick-up and drop-off visitors and their baggage at their hotel.
- making multiple stops for the convenience of their customers.
- delaying departure for a moment when a customer who has already paid for his transportation is a little bit late arriving for boarding.
- ensuring that customers are not mystified and confused in a new place, with hard-to-pronounce street names, in ascertaining where they are to get on or off of their bus or trolley.
- recognizing that visitors may travel by tour bus, trolley, taxi, limousine or rental car.

The key element of the service issue is loading zones. Loss of loading zone space affects the ability of the passenger carriers to meet the needs of hotels and visitors of Waikiki reliably and continuously. The current inventory of loading zones is already inadequate along Kalakaua and Kuhio Avenues.

Plans for the transit system to utilize the Kalakaua Avenue curbside lane is a tremendous concern if the lane is to be a semi-exclusive use lane. The makai curbside lane of Kalakaua serves as THE major loading zone area to service all street front customers since the majority of properties failed to provide adequate, or any, off street loading facilities.

Private tour buses and trolleys must use the makai curb on Kalakaua for loading and unloading their passengers or risk injury to them if they are unloaded into traffic while the tour bus or trolley is parked along the mauka curb. Furthermore, the nature of the business makes it difficult to load and unload paying customers in a short period of time.

The City's DTS long ago acknowledged the problem with a short inventory of loading zone space and conceived the plan to allow the use of long stretches of Kalakaua and Kuhio Avenue curb sides to augment loading and unloading capacity.

The lack of adequate loading zones makes it difficult or impossible for private passenger carriers to serve visitors and serve them well. This may lead travel wholesalers to recommend other destinations to their clients. The consequence of a reputation for inadequate service is likely to be fewer visitors. The passenger carriers will obviously suffer if this were to happen, but so would the hotels and the visitor industry and in turn all of Hawaii including government.

Therefore, it does not make sense to expedite people movement if buses must park wherever they can, just for a minute, to get their job done and in the process inhibit traffic.

We also believe that the needs of our visitors to move between Waikiki and the convention center and shopping areas are adequately served by the present system. Private passenger carriers provide flexibility when it comes to capacity and routes. Depending on demand, various sized and types of vehicles can be utilized to accommodate anticipated passenger loads.

Contrary to Federal policy, the BRT in Waikiki would be competing and thereby taking away business from private passenger carriers that provide the same service. Consequently, this will have an adverse effect on the survivability of the private carriers.

The City states that its bus lines exists to serve residents, especially employees of the visitor industry, and not compete directly with private passenger carriage, but its behavior says otherwise. There are many examples of this, some of which are noted below:

- The City provides a $10, four-day pass, which exists for and is marketed to short-term visitors;
- The City's OTS facilitates the promotion of its services through schedules published by private firms in the Japanese language and distributed in Japan for which OTS receives a royalty;
- The City monopolizes pick-up and delivery service to specific visitor destinations, e.g., Hanauma Bay;
- The City highly subsidizes travel of visitors on its buses.

It has been stated several times by the City that one of the main reasons for the BRT's Waikiki branch is to expedite the movement of employees into and out of Waikiki. We believe that the City does not have to build a BRT entering Waikiki to accomplish this. Peak ridership for Waikiki employees occurs in the morning, when they are going to work, and in the afternoon, when they leave to return home. A shuttle bus system running between Ala Moana Center and Waikiki, operated by the City or a private carrier, primarily during times of shift changes, can alleviate this problem by augmenting the current bus system. This shuttle bus system would also provide an additional benefit by freeing up much needed capacity on existing City buses for Waikiki residents.

In conclusion, HTA does not oppose improvements to Oahu's transit system. We firmly believe, however, that it is not necessary to include a Waikiki branch in the BRT alternative. If, nonetheless, a decision is made to enter Waikiki, then HTA recommends that the City: (1) enter into a dialogue with the members of the HTA Passenger Carrier Conference and others exploring the possibility of using Kuhio Avenue or Kuhio Avenue and Ala Wai Boulevard for its BRT vehicles; and (2) keep those BRT vehicles off of Kalakaua Avenue.

If you have any questions, please call me at 833-6628.

Thank you for your time and attention to this matter.

Sincerely,

for Gareth K. Sakakida
Managing Director

cc: Office of Environmental Quality Control

Hawaii Transportation Association
Driving Hawaii's Economy

November 14, 2000

TESTIMONY BEFORE THE CITY AND COUNTY OF HONOLULU'S COUNCIL COMMITTEE ON TRANSPORTATION ON RESOLUTION 00-249 - SELECTION OF A LOCALLY PREFERRED ALTERNATIVE FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you Chairman Bainum and committee members. I am Gareth Sakakida, Managing Director of the Hawaii Transportation Association (HTA) with 360 members involved in the commercial ground transportation industry (motor carriers).

HTA supports improvements to Oahu's transit system, and of the three alternatives, supports the Bus Rapid Transit (BRT) system without the current Waikiki routing.

Our concern is the loss of an already scarce asset - the loading zone. It does not make much sense to try and expedite people movement if trucks and tour vehicles must stop wherever they can to get their job done and in the process inhibit traffic.

Loss of loading zones affect the ability of the property motor carriers (trucks) to feed the needs of the businesses, patrons, and employees of the Waikiki and Downtown areas reliably and continuously. The loss also precludes passenger motor carriers (tour vehicles) from providing the highest degree of transportation service to our visitors.

The current inventory of loading zones is already inadequate. This was acknowledged long ago by the City's Department of Transportation Services who conceived the plan to utilize long stretches of Kalakaua and Kuhio Avenue curbsides to augment loading and unloading capacities.

Plans for the transit system to utilize the Kalakaua Avenue curbside lane is a tremendous concern if the lane is to be an exclusive use lane. The mauka and makai curbside lanes of Kalakaua serve as THE major loading zone area to service all street front customers since the majority of properties failed to provide adequate, or any, off street loading facilities.

Tour vehicles are especially limited as they must use the makai curb or risk injury to passengers if they must load or unload them into traffic while parked on mauka curbs.

Even a semi-exclusive lane for the BRT will have a tremendous impact. Current traffic and servicing activities are at a very delicate balance on Kalakaua - without City buses - the addition of BRT with headways of four minutes or so will destroy that balance.

Kuhio Avenue is no different. Curbside serves as the primary loading zone and is so important just because of the number of small businesses along that corridor.

The nature of motor carrier loading and unloading does not mix well with the concept of fast, frequent, high volume public transit if they are in the same lane.

Property carriers make multiple high and low volume deliveries to provide Waikiki with everything it needs. Property carriers need:

- loading zones in proximity to their customers so the various needs can be met quickly and in a "just in time" manner to effect cost savings for everyone;
- enough loading zone area so multiple trucks can make deliveries at one time to reduce the number that need to circle the block hunting for available space creating more congestion;
- enough time in the loading zone to deliver everything from the one basket of flowers to the half truckload of beverages to the truckload of meat and vegetables; and
- enough time in the loading zone to get the load into the back of the hotel or store, or to the 20th floor, and get the appropriate signature to conclude the transaction.

Passenger carriers make multiple high and low volume stops to offer Hawaii's visitors the highest degree of transportation service and convenience. Passenger carriers need:

- the ability to pick up and drop off visitors and their bags at their hotel door;
- to make multiple stops for the convenience of their customers;
- time to accommodate the customer who has paid for the transportation when a little slow while boarding, or a little late for boarding; and
- time to service the customer who is mystified and confused in a new place that has hard to pronounce street names, unfamiliar surroundings, and limited knowledge in ascertaining where to board or alight from their vehicle.

Loading zones are the key to motor carrier services and motor carrier services are key to Waikiki's viability. Loading zones losses to accommodate the BRT system is counterproductive to Waikiki's viability.

One of the BRT's primary functions is to expedite the movement of employees in to and out of Waikiki. This can be accomplished with a shuttle bus system running in a loop from the Ala Moana BRT Transit Center.

Buses are particularly adept at showing up during peak needs and disappearing with no trace during non-peak hours, which dovetails nicely with the shift change peaks in Waikiki. This shuttle would serve to augment whatever regular bus schedule is warranted for Waikiki.

Furthermore, the transportation needs of our visitors between Waikiki and other points are well serviced by the passenger carriers who are fully flexible to accommodate varying capacities and routes. Passenger carriers provide a high service level mass transit operation that takes additional cars and drivers - who may be unfamiliar with our roads, rules and maybe left hand steering position - off our roads.

However, the passenger carriers are very aware that the BRT will compete for riders with a subsidized fee that no one can compete with. Consequently, the BRT adversely impacts the carriers' survivability. Although this is not the stated intent, past actions have molded the competition belief:

- $10 four day pass which is marketed to short term visitors;
- Promotion of OTS services through schedules published in the Japanese language (for which OTS receives a royalty) and distributed in Japan; and
- Increased service to Hanauma Bay after passengers carriers were precluded from providing transportation there.

The competition is contrary to federal policy and is particularly hurtful since public funds (including passenger carrier tax revenues) subsidizes the visitors' rides.

In conclusion, HTA supports improvements to Oahu's public transit system, but is concerned about the loss of loading zones in Downtown and does not believe the current Waikiki service is desired in the overall operational environment.

Thank you.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
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CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05378R

November 13, 2002

Mr. Gareth Sakakida, Managing Director
Hawaii Transportation Association
P. O. Box 30166
Honolulu, Hawaii 96820

Dear Mr. Sakakida:

Subject: Primary Corridor Transportation Project

This is in response to your October 5, 2000 letter, your November 6, 2000 letter, your November 14, 2000 written testimony, and your oral testimony at the November 14, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *HTA's primary concern with the Transportation System Management and the Bus Rapid Transit concepts is the loss of loading zones anywhere along the project's line, and especially in the Waikiki and Downtown areas.*

   Response: In the Public Outreach for the Project, the City established a Working Group (WG) for the Waikiki area composed of representatives from the hotels, retail and service industries, commercial passenger and freight carriers, and residents. A detailed study of passenger and freight loading activities was performed and reviewed with the Waikiki WG. Discussions with this Working Group led to revisions in the proposed project that resulted in no appreciable loss of on-street loading space along Kalakaua and Kuhio Avenues. This was achieved by allowing freight carriers to use the BRT shared lane during legal delivery hours (10 P.M. to 9 A.M. on Kalakaua Avenue and 10 P.M. to 7:30 A.M. on Kuhio Avenue); during these time periods the BRT would simply pass around a stopped loading truck by using the adjacent traffic lane. In Downtown the In-Town BRT would operate on Hotel Street which is already a transit mall; Bishop Street where the BRT would operate in mixed traffic; Alakea Street where the BRT would operate in mixed traffic except during the P.M. peak period, at which time truck loading for Bishop Square would be prohibited (truckers could use the building's off-street freight loading facilities or the freight loading zone on the Koko Head side of Alakea); and Richards Street where no loading zones would be affected.

   While some loading zones may need to shift locations slightly, no private bus loading zones will be eliminated in Downtown or Waikiki as part of the PCTP. To the contrary, private bus carriers will benefit from being able to use the transit priority lanes in Waikiki.

2. *Loss of loading zone space affects the ability of the motor carriers to feed the needs of the businesses, patrons, and employees of the Waikiki and Downtown area reliably and continuously. The current inventory of loading zones is already inadequate in both areas.*

Response: See response to comment #1.

3. *Plans for the transit system to utilize Kalakaua Avenue curbside lane is a tremendous concern if the lane is to be an exclusive use lane. The mauka and makai curbside lanes of Kalakaua serve as THE major loading zone area to service all street front customers since the majority of properties failed to provide adequate, or any, off street loading facilities.*

Response: See response to comment #1.

4. *Tour buses especially must use the makai curb or risk injury to passengers if they must unload them into traffic while parked on the mauka curb.*

Response: As described in the response to comment #1, tour buses and other vehicles loading and unloading passengers or freight would be allowed to continue using the makai lane of Kalakaua Avenue. Moreover, existing loading zones for the Sheraton Moana Surfrider and Outrigger on the Beach hotels would also remain accessible. The Sheraton Waikiki and Royal Hawaiian Shopping Center have off-street loading facilities.

5. *The City's DTS long ago acknowledged the problem with a short inventory of loading zone space and conceived the plan to allow the use of long stretches of Kalakaua and Kuhio Avenue curbsides to augment loading and unloading capacity.*

Response: See responses to comments #1 and #4.

6. *So when the paucity of legal loading zones prevents them from servicing their customers, they will do whatever they can to accomplish the service. In short, this means double parking, parking on sidewalks, etc., taking a chance that they won't get caught. It becomes easier to pay a fine than to have the customer perceive you cannot provide the necessary service.*

Response: See responses to comments #1 and #4.

7. *In conclusion, HTA does not oppose improvements to Oahu's transit system. However, we are concerned about the loss of an already scarce asset -- the loading zone. It does not make too much sense to expedite people movement if trucks and buses must park wherever they can, just for a minute, to get their job done and in the process inhibit traffic.*

Response: See responses to comments #1 and #4. Also, please note that bus loading zones on Kuhio and Kalakaua Avenues would continue to be provided with the Refined LPA.

8. *The HTA Passenger Carrier Conference supports the Bus Rapid Transit (BRT) alternative, provided that it does not include the proposed Waikiki segment.*

Response: Comment noted. It is a statement of the commenter's preference for a LPA.

9. *The primary concern of HTA's Passenger Carrier Conference with the MIS/DEIS for the Primary Corridor Transportation Project is that it does not address the negative impact the BRT will have on those visiting Waikiki and on the private passenger carriers which serve them.*

Response: Based on the analysis of the potential impacts on private transportation providers in Waikiki as discussed in Chapter 5 of the FEIS, private transportation providers would not be

significantly adversely affected by the Refined LPA since they service different travel markets. In addition, the Refined LPA will not adversely affect existing loading space along streets in Waikiki.

10. *The MIS/Draft EIS document does not adequately demonstrate an understanding of how the visitor industry operates in general nor how the passenger carriers that serve that industry operate in particular.*

Response: In the Public Outreach for the Project, the City established a Working Group (WG) for the Waikiki area composed of representatives from the hotels, retail and service industries, commercial passenger and freight carriers, and residents. A detailed study of passenger and freight loading activities was performed and reviewed with the Waikiki WG. Discussions with this Working Group led to revisions in the proposed project that would result in no appreciable loss of on-street loading space along the streets used by the BRT.

11. *Federal law is very clear that in planning new transportation programs to be financed from federal funds, consideration must be given to preserving and utilizing existing transportation facilities, both public and private.*

Response: Comment noted. The proposed project accomplishes this.

12. *Furthermore, in planning such new systems, federal law requires that the overall social, economic, energy and environmental impacts be considered. These federal objectives have not been sufficiently achieved in the MIS/Draft EIS.*

Response: FEIS Chapter 4, Transportation Impacts, and Chapter 5, Environmental Analysis and Consequences, sufficiently disclose potential social, economic, energy and environmental impacts resulting from the various alternatives.

13. *The MIS/Draft EIS does not address the impact of any of the three alternatives it puts forth on privately owned and operated passenger carriers. It does not discuss whether pursuing the no-build, the TSM or the BRT alternatives will reduce the revenues of any of these businesses. There is no discussion of whether City and State tax revenues derived from passenger carriers will be reduced as a result of the impact of pursuing any of the three alternatives.*

Response: As discussed in Chapter 5 of the FEIS, there is not expected to be any significant reduction in revenues of privately owned and operated passenger carriers as a result of the No-Build, TSM or Refined LPA Alternatives.

14. *The key element of the service issue is loading zones. Loss of loading zone space affects the ability of the passenger carriers to meet the needs of hotels and visitors of Waikiki reliably and continuously. The current inventory of loading zones is already inadequate along Kalakaua and Kuhio Avenues.*

Response: See responses to comments #1 and #4.

15. *Plans for the transit system to utilize the Kalakaua Avenue curbside lane is a tremendous concern if the lane is to be a semi-exclusive use lane. The makai curbside lane of Kalakaua serves as THE major loading zone area to service all street front customers since the majority of properties failed to provide adequate, or any, off street loading facilities.*

Response: See responses to comments #1 and #4.

16. *Private tour buses and trolleys must use the makai curb on Kalakaua for loading and unloading their passengers or risk injury to them if they are unloaded into traffic while the tour bus or trolley is parked along the mauka curb. Furthermore, the nature of the business makes it difficult to load and unload paying customers in a short period of time.*

    Response: See responses to comments #1 and #4.

17. *The City's DTS long ago acknowledged the problem with a short inventory of loading zone space and conceived the plan to allow the use of long stretches of Kalakaua and Kuhio Avenue curbsides to augment loading and unloading capacity.*

    Response: See responses to comments #1 and #4.

18. *The lack of adequate loading zones makes it difficult or impossible for private passenger carriers to serve visitors and serve them well. This may lead travel wholesalers to recommend other destinations to their clients. The consequence of a reputation for inadequate service is likely to be fewer visitors. The passenger carriers will obviously suffer if this were to happen, but so would the hotels and the visitor industry and in turn all of Hawaii including government. Therefore, it does not make sense to expedite people movement if buses must park wherever they can, just for a minute, to get their job done and in the process inhibit traffic.*

    Response: See response to comments #1, #4 and #7.

19. *We also believe that the needs of our visitors to move between Waikiki and the convention center and shopping areas are adequately served by the present system. Private passenger carriers provide flexibility when it comes to capacity and routes. Depending on demand, various sized and types of vehicles can be utilized to accommodate anticipated passenger loads.*

    Response: Based on the analysis of the potential impacts on private transportation providers in Waikiki as discussed in Chapter 5 of the FEIS, the private transportation providers will not be affected by the Refined LPA since they serve different travel markets. Therefore, private tour bus and trolley operators will still be needed to serve the tourist market even after BRT is implemented.

    The BRT routings, stop locations and other features are designed to serve trips by Oahu residents when going to-and-from home, work, school, shopping and other purposes. It is not designed to serve the tourist market as are the private bus operations in Honolulu. Unlike the private sector buses the In-BRT would not pick passengers up at their hotels and take them on various scenic tours. It would not take them to-and-from the Airport. It would not take them to-and-from their hotels and the Convention Center. It would not pick them up at the cruise ship terminal and carry them and their bags directly to their hotels. And unlike the private shuttles it is not designed to operate in a loop that only goes between Waikiki hotels and the various tourist sites of interest. Yes some tourists may end up using BRT since it does serve some of the same destinations that the tourists want to go to, but the In-BRT goes to these places because most of these are also major employment sites or sites where local residents go to as well. The number of tourists expected to use the public transit system with the Refined LPA is forecast to be no greater proportionally than today (i.e. around 10-15 percent of total daily boardings).

20. *Contrary to Federal policy, the BRT in Waikiki would be competing and thereby taking away business from private passenger carriers that provide the same service. Consequently, this will have an adverse effect on the survivability of the private carriers.*

    Response: As indicated in response to comment #19, the Refined LPA will not be competing and taking away business from private passenger carriers since the travel market served by private operators such as taxis, shuttles, etc., is distinctly different from that serviced by the Refined LPA. The travel market serviced by private operators would still need their services even with the implementation of the Refined LPA.

    Rather than taking away business, implementation of the PCTP, including implementation of the hub-and-spoke bus system, could provide opportunities for privatization. The concept of the hub-and-spoke bus system includes circulator buses collecting riders from certain routes (spokes) and dropping them off at various "hubs" in the community located along the main transit spine. These circulator routes could be serviced by privately owned transportation operators.

21. *The City states that its bus lines exist to serve residents, especially employees of the visitor industry, and not compete directly with private passenger carriage, but its behavior says otherwise. There are many examples of this, some of which are noted below: a) The City provides a $10, four-day pass, which exists for and is marketed to short-term visitors; b) The City's OTS facilitate the promotion of its services through schedules published by private firms in the Japanese language and distributed in Japan for which OTS receives a royalty; c) The City monopolizes pick-up and delivery service to specific visitor destinations, e.g., Hanauma Bay; d) The City highly subsidizes travel of visitors on its buses.*

    Response: OTS provides bus service primarily to residents of Oahu. Being a general public transit system, TheBus is available for use by visitors as well as residents, which is similar to other public transit systems around the world.

    OTS sells a variety of individual rider passes for residents (adults, students, seniors and the disabled) and a visitor pass for $15, which allows for unlimited use during a four-consecutive day period only. These visitor passes are available at all ABC Stores in Waikiki, Ala Moana Shopping Center, and at TheBus pass office. As is typical of public transit system throughout the nation, TheBus is subsidized and all riders, residents and visitors alike, benefit from this subsidy.

    There are bus publications commercially sold (in English and Japanese) by Obun Hawaii, Inc. to assist visitors who choose to ride public transportation. There is also a travel guide, Michael Brein's Guide to Honolulu & TheBus, which can be purchased by residents and visitors. The City does not receive a royalty for the sale of these publications and it is not involved in promoting the sale of these publications. The City received a royalty for the use of TheBus logo on the publications. As is noted in these publications, TheBus does travel to/past certain visitor sites or destinations while serving residents and therefore could be used by non-residents as well. Honolulu (Oahu) like other travel destinations offers its visitors many choices of transportation and scenic tour modes, including private carriage companies, taxis, limousines, rental vehicles and TheBus. The Honolulu City Council instituted a limit of access to Hanauma Bay to protect this fragile and unique natural attraction. TheBus, too, is limited in its service for residents and visitors to this part of Oahu for the very same reason that other passenger carriers are restricted access to this site.

22. *It has been stated several times by the City that one of the main reasons for the BRT's Waikiki branch is to expedite the movement of employees into and out of Waikiki. We believe that the City does not have to build a BRT entering Waikiki to accomplish this. Peak ridership for Waikiki employees occurs in the morning, when they are going to work, and in the afternoon, when they leave to return home. A shuttle bus system running between Ala Moana Center and Waikiki, operated by the City or a private carrier, primarily during times of shift changes, can alleviate this problem by augmenting the current bus system. This shuttle bus system would also provide an additional benefit by freeing up much needed capacity on existing City buses for Waikiki residents.*

    Response: With a high concentration of jobs, residences and visitor venues in a small area with few access points, Waikiki streets are congested during much of the day. To serve the high level of resident/worker transit demand a system is proposed that will allow BRT vehicles to by-pass this congestion using bus priority lanes and other techniques. The BRT system will permit transit passengers to board anywhere along the route and complete their journey in Waikiki without having to transfer to a shuttle at Ala Moana Center. Other passengers who boarded buses not along the BRT route could transfer to the BRT at Ala Moana Center or many of the other transit centers and transfer points in the system. With this approach many riders could have a transfer free trip to-and-from Waikiki, whereas with a shuttle bus system everyone would have to transfer at Ala Moana Center.

    Additionally, the In-Town BRT is intended to not only serve Waikiki workers (who, by the way, do not all arrive and depart at the same time). The BRT would benefit Waikiki residents and residents throughout the island who go to Waikiki for entertainment, shopping, and recreation.

23. *In conclusion, HTA does not oppose improvements to Oahu's transit system. We firmly believe, however, that it is not necessary to include a Waikiki branch in the BRT alternative. If, nonetheless, a decision is made to enter Waikiki, then HTA recommends that the City: 1) enter into a dialogue with the members of the HTA Passenger Carrier Conference and others exploring the possibility of using Kuhio Avenue or Kuhio Avenue and Ala Wai Boulevard for its BRT vehicles; and 2) keep those BRT vehicles off of Kalakaua Avenue.*

    Response: The proposed routing of the BRT with a one-way loop on Kalakaua and Kuhio Avenues was found to best serve the travel needs of the projected users of this portion of the system, namely Waikiki workers, Waikiki residents and visitors to Waikiki (Oahu residents and tourists). Between Saratoga Road and Kapahulu Avenue in Waikiki there are approximately 14,300 jobs along Kalakaua Avenue, 10,500 along Kuhio Avenue and 1,500 along Ala Wai Boulevard. There are 1,700 housing units along Kalakaua, 4,200 along Kuhio, and 4,500 along Ala Wai Boulevard. There are 12,200 hotel rooms along Kalakaua, 4,200 along Kuhio, and 800 along Ala Wai Boulevard. In other words a loop along Kalakaua and Kuhio Avenues would directly serve all of these potential users, whereas a two-way operation on Kuhio would only directly serve a limited portion of the travel market. Further, a two-way loop on Kuhio would displace passenger and freight loading zones or would result in traffic delays if the loading zones weren't displaced. In contrast, the Kalakaua/Kuhio loop would maintain auto access as well as passenger and freight loading zones on both Kalakaua and Kuhio Avenues.

    The Kuhio/Ala Wai loop would be even further removed from the large number of jobs and hotel rooms on Kalakaua Avenue. While a Kuhio/Ala Wai loop would more directly serve the residents in this section of Waikiki, the problem is that only about one-third of the projected BRT riders in this section of Waikiki would be Waikiki residents. It is estimated that about 45 percent of the BRT users in this section of Waikiki would be Waikiki workers, 10 percent would be Oahu residents visiting Waikiki for business, shopping or recreation, and 12 percent would be tourists.

    For these workers and visitors the Kalakaua/Kuhio loop would more directly serve their needs. Travel time analyses indicate that with the Kuhio/Ala Wai Alternative an extra 3.1 minutes trip time would be added to 83 percent of the projected BRT riders starting their trip in this part of Waikiki, when compared to the Kalakaua/Kuhio loop. As far as effects to private tour vehicles, loading zones for private buses are proposed to be retained on Kalakaua and Kuhio Avenues with the Refined LPA.

24. *HTA supports improvements to Oahu's transit system, and of the three alternatives, supports the Bus Rapid Transit (BRT) system without the current Waikiki routing.*

    Response: Comment noted. It states the commenter's preference for the LPA.

25. *Our concern is the loss of an already scare asset – the loading zone. It does not make much sense to try and expedite people movement if trucks and tour vehicles must stop wherever they can to get their job done and in the process inhibit traffic. Loss of loading zones affect the ability of the property motor carriers (trucks) to feed the needs of the businesses, patrons, and employees of the Waikiki and Downtown areas reliably and continuously. The loss also precludes passenger motor carriers (tour vehicles) from providing the highest degree of transportation service to our visitors. The current inventory of loading zones is already inadequate. This was acknowledged long ago by the City's Department of Transportation Services who conceived the plan to utilize long stretches of Kalakaua and Kuhio Avenue curbsides to augment loading and unloading capacities.*

    Response: See responses to comments #1, #4 and #7.

26. *Plans for the transit system to utilize the Kalakaua Avenue curbside lane is a tremendous concern if the lane is to be an exclusive use lane. The mauka and makai curbside lanes of Kalakaua serve as THE major loading zone area to service all street front customers since the majority of properties failed to provide adequate, or any, off street loading facilities. Tour vehicles are especially limited as they must use the makai curb or risk injury to passengers if they must load or unload them into traffic while parked on mauka curbs.*

    Response: See responses to comments #1 and #4.

27. *Even a semi-exclusive lane for the BRT will have a tremendous impact. Current traffic and servicing activities are at a very delicate balance on Kalakaua – without City buses – the addition of BRT with headways of four minutes or so will destroy that balance.*

    Response: See responses to comments #1 and #4.

28. *Kuhio Avenue is no different. Curbside serves as the primary loading zone and is so important just because of the number of small businesses along that corridor.*

    Response: See responses to comments #1 and #7.

29. *The nature of motor carrier loading and unloading does not mix well with the concept of fast, frequent, high volume public transit if they are in the same lane.*

    Response: See responses to comments #1 and #7.

30. *Property carriers make multiple high and low volume deliveries to provide Waikiki with everything it needs. Property carriers need:*
a) loading zones in proximity to their customers so the various needs can be met quickly and in a "just in time" manner to effect cost savings for everyone;
b) enough loading zone area so multiple trucks can make deliveries at one time to reduce the number that need to circle the block hunting for available space creating more congestion;
c) enough time in the loading zone to deliver everything from the one basket of flowers to the half truckload of beverages to the truckload of meat and vegetables; and
d) enough time in the loading zone to get the load into the back of the hotel or store, or to the 20th floor, and get the appropriate signature to conclude the transaction.

Response: With the Refined LPA, freight deliveries will be permitted in the curb lanes on Kalakaua and Kuhio Avenues as they are today between the hours of 10 P.M. and 9 A.M. on Kalakaua Avenue and 10 P.M. and 7:30 A.M. on Kuhio Avenue. In addition, freight loading will be permitted in designated turnouts on Kalakaua and Kuhio Avenues during other times of the day. (See also responses to comments #1 and #7).

31. *Passenger carriers make multiple high and low volume stops to offer Hawaii's visitors the highest degree of transportation service and convenience. Passenger carriers need:*
a) the ability to pick up and drop off visitors and their bags at the hotel door;
b) to make multiple stops for the convenience of their customers;
c) time to accommodate the customer who has paid for the transportation when a little slow while boarding, or a little late for boarding; and
d) time to service the customer who is mystified and confused in a new place that has hard to pronounce street names, unfamiliar surroundings, and limited knowledge in ascertaining where to board or alight from their vehicle.

Response: Turnouts for passenger carrier loading are proposed along Kalakaua and Kuhio Avenues in the Refined LPA.

32. *Loading zones are the key to motor carrier services and motor carrier services are key to Waikiki's viability. Loading zones losses to accommodate the BRT system is counterproductive to Waikiki's viability.*

Response: See responses to comments #30 and #31.

33. *One of the BRT's primary functions is to expedite the movement of employees in to and out of Waikiki. This can be accomplished with a shuttle bus system running in a loop from the Ala Moana BRT Transit Center.*

Response: See response to comment #22.

34. *Buses are particularly adept at showing up during peak needs and disappearing with no trace during non-peak hours, which dovetails nicely with the shift change peaks in Waikiki. This shuttle would serve to augment whatever regular bus schedule is warranted for Waikiki.*

Response: The BRT service schedules will vary during the day in response to passenger demand.

35. *Furthermore, the transportation needs of our visitors between Waikiki and other points are well serviced by the passenger carriers who are fully flexible to accommodate varying capacities and routes. Passenger carriers provide a high service level mass transit operation that takes additional cars and drivers – who may be unfamiliar with our roads, rules and maybe left hand steering position – off our roads.*

Response: Based on the analysis of the potential impacts on private transportation providers in Waikiki as discussed in Chapter 5 of the FEIS, the private transportation providers will not be significantly adversely affected by the Refined LPA since they service different travel markets. Therefore, visitors will still be able to use the services of private transportation carriers.

36. *However, the passenger carriers are very aware that the BRT will compete for riders with a subsidized fee that no one can compete with. Consequently, the BRT adversely impacts the carriers' survivability. Although this is not the stated intent, past actions have molded the competition belief:*
a) $10 four day pass which is marketed to short term visitors;
b) Promotion of OTS services through schedules published in the Japanese language (for which OTS receives a royalty) and distributed in Japan; and
c) Increased service to Hanauma Bay after passengers carriers were precluded from providing transportation there.
The competition is contrary to federal policy and is particularly hurtful since public funds (including passenger carrier tax revenues) subsidizes the visitors' rides.

Response: See response to comment #21.

37. *In conclusion, HTA supports improvements to Oahu's public transit system, but is concerned about the loss of loading zones in Downtown and does not believe the current Waikiki service is desired in the overall operational environment.*

Response: Comment noted. It is a statement of the commenter's preference for an LPA.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

KAPIOLANI PARK PRESERVATION SOCIETY
P.O. Box 3059, Honolulu HI 96802

3 May 2002

MAY 6 2002

Federal Transit Administration, Region IX
U.S. Department of Transportation
201 Mission Street, Suite 2210
San Francisco, California 94105-1839
Attention: Mr. Ray Sukys and Ms. Donna Turchie

Federal Highways Administration
Prince Jonas Kuhio Kalanianaole Federal Building
300 Ala Moana Boulevard
Honolulu, Hawaii 96813
Attention: Mr. Abraham Wong and Mr. Bruce Turner

Hawaii Office of Environmental Quality Control
State Office Tower, Suite 702
235 South Beretania Street
Honolulu, Hawaii 96813
Attention: Ms. Genevieve Salmonson, Director

Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813
Attention: Ms. Cheryl Soon, Director

Subject: Concerns Related to the Impact of Bus Rapid Transit (BRT) on Kapiolani Park

Dear All Concerned:

The mission of the Kapiolani Park Preservation Society (a non-profit corporation) is to see that the Trust provisions establishing the Park are respected and enforced. King Kalakaua and William G. Irwin contributed their private lands for a "free public park and recreation ground forever", as placed in Trust for the people of Honolulu. The Society is concerned that

plans for the proposed Bus Rapid Transit system could lead to conflict with Park Trust provisions and possible litigation with the Society. It is imperative that the impact of this proposed system on the Park be considered from both environmental and legal perspectives.

While it is clear that Park users would appreciate good mass transit service to the Park's edge, it appears, from the sparse available planning material, that the Park is envisioned as the in-town BRT line's eastern point of contact for BRT's interface with transportation services in East Honolulu. Kapiolani Park is listed on the Hawaii State Register of Historic Places. Recent Court rulings have indicated that municipal facilities are not an appropriate use of Kapiolani Park Trust lands. Therefore a transportation transfer point for traffic to East Honolulu could not be built at the Park.

It is not clear to us why this Waikiki to downtown segment of the proposed project is being fast tracked without the necessary proper studies, community review workshops, and hearings. It will be time consuming for all of us if you rush ahead with these plans only to end up with a flawed system prone to challenge.

If the planning process is flawed as it relates to its impact on Honolulu's most significant major park, it may be flawed as it relates to other portions of the city's fabric. A project of this magnitude needs to be arrived at through further study and an open planning process.

We would welcome the opportunity to work with you closely on issues related to Kapiolani Park.

Sincerely,

Jack Gillmar
President

AR00015610

FAX to:

Federal Transit Administration, Region IX
U.S. Department of Transportation
201 Mission Street, Suite 2210
San Francisco, California 94105-1839
Attention: Mr. Ray Sukys and Ms. Donna Turchie

Federal Highways Administration
Prince Jonas Kuhio Kalanianaole Federal Building
300 Ala Moana Boulevard
Honolulu, Hawaii 96813
Attention: Mr. Abraham Wong and Mr. Bruce Turner

Hawaii Office of Environmental Quality Control
State Office Tower, Suite 702
235 South Beretania Street
Honolulu, Hawaii 96813
Attention: Ms. Genevieve Salmonson, Director

Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813
Attention: Ms. Cheryl Soon, Director

FROM: Kapiolani Park Preservation Society

Date : 5/6/2

Total # of pages inculding cover: 3

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4520 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD5/02-01813R
TPD5/02-01921R

Mr. Jack Gillmar
President
Kapiolani Park Preservation Society
P. O. Box 3059
Honolulu, Hawaii 96802

Dear Mr. Gillmar:

Subject: Primary Corridor Transportation Project

This is in response to your May 3, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS). We have the following responses:

1. *The mission of the Kapiolani Park Preservation Society (a non-profit corporation) is to see that the Trust provisions establishing the Park are respected and enforced. King Kalakaua and William G. Irwin contributed their private lands for a "free public park and recreation ground forever", as placed in Trust for the people of Honolulu. The Society is concerned that plans for the proposed Bus Rapid Transit system could lead to conflict with Park Trust provisions and possible litigation with the Society. It is imperative that the impact of this proposed system on the Park be considered from both environmental and legal perspectives.*

   Response: The only element of the In-town BRT system near Kapiolani Park is a transit stop within the right-of-way of Kapahulu Avenue, fronting the landscaped area of Honolulu Zoo and adjacent to the pedestrian path. We will consult with the Kapiolani Park Preservation Society on the physical appearance of this transit stop, such as using shelters for BRT users.

2. *While it is clear that Park users would appreciate good mass transit service to the Park's edge, it appears, from the sparse planning material, that the Park is envisioned as the in-town BRT line's eastern point of contact for BRT's interface with transportation services in East Honolulu. Kapiolani Park is listed on the Hawaii State Register of Historic Places. Recent Court rulings have indicated that municipal facilities are not an appropriate use of Kapiolani Park Trust lands. Therefore a transportation transfer point for traffic to East Honolulu could not be built at the Park.*

   Response: It is not proposed to place a transit center on Kapiolani Park Trust lands. Any transfers near Kapiolani Park would occur at the planned transit stop described in our response to Comment #1.

3. *It is not clear to us why this Waikiki to downtown segment of the proposed project is being fast tracked without the necessary proper studies, community review workshops, and hearings. It will be time consuming for all of us if you rush ahead with these plans only to end up with a flawed system prone to challenge.*

Response: The Primary Transportation Corridor Project was initiated in September 1998 with gathering public input to create and refine the Islandwide Mobility Concept Plan. There have been hundreds of public meetings regarding the project, plus the six working groups that were formed in the areas along the BRT corridor. The project team members have attended an abundance of meetings to discuss the project. Community involvement will continue throughout the project.

4. *If the planning process is flawed as it relates to its impact on Honolulu's most significant major park, it may be flawed as it relates to other portions of the city's fabric. A project of this magnitude needs to be arrived at through further study and an open planning process.*

Response: Comment noted. It is a statement of opinion. See responses to comments #1, #2, and #3.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

ENJAMIN SAGUIBO
ELVIN A. CREMER
ELVIN M. KALAMA, JR.
ORMAN JANICKI, JR.
VER KUPAU, III
ERBERT LOO
AYTON SAGUIBO
K PAGATPATAN
TE LINDSEY
EL MORIKAWA
ORGE AIKALA

LABORERS' INTERNATIONAL UNION OF NORTH AMERICA
LOCAL 368, AFL-CIO

October 5, 2000

The Honorable Duke Bainum, Chair of the Transportation Committee
Honolulu City Council
Honolulu Hale
530 South King Street
Honolulu, HI 96813

TESTIMONY IN SUPPORT OF Primary Corridor Transportation Project

Hearing Date:	Thursday, October 5, 2000
Time:	6:30 p.m.
Hearing Location:	Hawaii Convention Center

Transportation Chair Bainum and Distinguished Members of the Transportation Committee:

Thank you for allowing me the opportunity to appear before you today as you consider taking action on the Primary Corridor Transportation Project. On behalf of the Laborers' Union, and each of its members, I would like to seek your support in moving forward with the Bus Rapid Transit option currently being considered by the Committee.

Honolulu is currently in dire need of an improvement to the public transportation system given the number of hours people currently spend in traffic and the growing need for alternatives to the use of the automobile. Moreover, given the importance of our visitor industry, the ability to get to and from Waikiki, and beyond, as well as throughout the island during a visit, is vitally important to our ongoing mission to maintain Hawaii as premier international destination for travelers.

Additionally, the benefits of a modern Bus Rapid Transit System will be felt by the community at large both immediately, and for generations to come. As to the immediate benefits, the proposed projects could potentially create as many as 3000 new jobs in the construction industry alone. As always, work opportunity creates tax revenue and greater spending, which helps to benefit our economy overall.

As to the future benefits, most are obvious, but worth repeating. Future generations will have meaningful and viable options to choose from when deciding how they commute to and from work. Also, an improved public transportation system would bring about greater access to the outlying communities, particularly Kapolei, which will expedite the growth of Oahu's Second City.

The time to take action on bringing about a new and improved Bus Rapid Transit system is now. One need only try to commute to or from work during peak traffic times and they will realize that improvement is needed. You have before you today a realistic, environmentally friendly, and fiscally responsible option that seeks to address a fundamental community concern. I urge you to move forward on making the new Bus Rapid Transit System a reality for all the benefits it offers to our community.

Thank you for allowing me the opportunity to testify. I would be happy to answer any question that the Committee may have.

Respectfully submitted,

Antonio J. Saguibo, Jr.
Union Representative

LABORERS' INTERNATIONAL UNION OF NORTH AMERICA
LOCAL 368, AFL-CIO

BENJAMIN SAGUIBO
MELVIN A. CREMER
MELVIN M. KALAMA, JR.
NORMAN JANICKI, JR.
OLIVER KUBAU, III
HERBERT LOO
CLAYTON SAGUIBO
RICK PAGATPATAN
PETE LINDSEY
NOEL MORIKAWA
GEORGE AIKALA

October 12, 2000

VIA FACSIMILE ONLY 523-4730

Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Blvd., Suite 1200
Honolulu, HI 96813

TESTIMONY IN SUPPORT OF Primary Corridor Transportation Project

Hearing Date:	**Thursday, October 12, 2000**
Time:	**7:00 p.m.**
Hearing Location:	**Blaisdell Center, Hawaii Room**

Dear Ms. Soon:

Thank you for allowing me the opportunity to submit the below written testimony in support of the Primary Corridor Transportation Project. On behalf of the Laborers' Union, and each of its members, I would like to seek your support in moving forward with the Bus Rapid Transit option currently being considered by the City Council.

Honolulu is currently in dire need of an improvement to the public transportation system given the number of hours people currently spend in traffic and the growing need for alternatives to the use of the automobile. Moreover, given the importance of our visitor industry, the ability to get to and from Waikiki, and beyond, as well as throughout the island during a visit, is vitally important to our ongoing mission to maintain Hawaii as premier international destination for travelers.

Additionally, the benefits of a modern Bus Rapid Transit System will be felt by the community at large both immediately, and for generations to come. As to the immediate benefits, the proposed projects could potentially create as many as 3000 new jobs in the construction industry alone. As always, work opportunity creates tax revenue and greater spending, which helps to benefit our economy overall.

As to the future benefits, most are obvious, but worth repeating. Future generations will have meaningful and viable options to choose from when deciding how they commute to and from work. Also, an improved public transportation system would bring about greater access to the outlying communities, particularly Kapolei, which will expedite the growth of Oahu's Second City.

The time to take action on bringing about a new and improved Bus Rapid Transit system is now. One need only try to commute to or from work during peak traffic times and they will realize that improvement is needed. You have before you today a realistic, environmentally friendly, and fiscally responsible option that seeks to address a fundamental community concern. I urge you to move forward on making the new Bus Rapid Transit System a reality for all the benefits it offers to our community.

Thank you for allowing me the opportunity to submit the aforementioned written testimony for your consideration.

Respectfully submitted,

Antonio J. Sagubo, Jr.
Union Representative

LABORERS' INTERNATIONAL UNION OF NORTH AMERICA
LOCAL 368, AFL-CIO

BENJAMIN SAGUIBO
MELVIN A. CREMER
MELVIN M. KALAMA, JR.
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OLIVER KUPAU, III
HERBERT LOO
CLAYTON SAGUIBO
RICK FAGATPATAN
PETE LINDSEY
NOEL MORIKAWA
GEORGE AIKALA

October 26, 2000

VIA FACSIMILE 527-5733

The Honorable Duke Bainum, Chair of the Transportation Committee
Honolulu City Council
Honolulu Hale
530 South King Street
Honolulu, HI 96813

TESTIMONY IN SUPPORT OF Primary Corridor Transportation Project

Hearing Date:	**Thursday, October 26, 2000**
Time:	**6:30 p.m.**
Hearing Location:	**Honolulu Hale –City Council Chamber**

Transportation Chair Bainum and Distinguished Members of the Transportation Committee:

Thank you for allowing me the opportunity to appear before you today as you consider taking action on the Primary Corridor Transportation Project. On behalf of the Laborers' Union, and each of its members, I would like to seek your support in moving forward with the Bus Rapid Transit option currently being considered by the Committee.

Honolulu is currently in dire need of an improvement to the public transportation system given the number of hours people currently spend in traffic and the growing need for alternatives to the use of the automobile. Moreover, given the importance of our visitor industry, the ability to get to and from Waikiki, and beyond, as well as throughout the island during a visit, is vitally important to our ongoing mission to maintain Hawaii as premier international destination for travelers.

TESTIMONY IN SUPPORT OF Primary Corridor Transportation Project
Page 2 of 2

Additionally, the benefits of a modern Bus Rapid Transit System will be felt by the community at large both immediately, and for generations to come. As to the immediate benefits, the proposed projects could potentially create as many as 3000 new jobs in the construction industry alone. As always, work opportunity creates tax revenue and greater spending, which helps to benefit our economy overall.

As to the future benefits, most are obvious, but worth repeating. Future generations will have meaningful and viable options to choose from when deciding how they commute to and from work. Also, an improved public transportation system would bring about greater access to the outlying communities, particularly Kapolei, which will expedite the growth of Oahu's Second City.

The time to take action on bringing about a new and improved Bus Rapid Transit system is now. One need only try to commute to or from work during peak traffic times and they will realize that improvement is needed. You have before you today a realistic, environmentally friendly, and fiscally responsible option that seeks to address a fundamental community concern. I urge you to move forward on making the new Bus Rapid Transit System a reality for all the benefits it offers to our community.

Thank you for allowing me the opportunity to testify. I would be happy to answer any question that the Committee may have.

Respectfully submitted,

Antonio J. Sagulbo, Jr.
Union Representative

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD10/00-04992R

November 13, 2002

Mr. Benjamin Sagulbo
Business Manager
Laborer's International Union of North America
Local 368, AFL-CIO
1617 Palama Street
Honolulu, Hawaii 96817

Dear Mr. Sagulbo:

Subject: Primary Corridor Transportation Project

This is in response to your letters submitted October 5, 12, and 26, 2000 regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *On behalf of the Laborers' Union, and each of its members, I would like to seek your support in moving forward with the Bus Rapid Transit option currently being considered by the Committee.*

   Response: Comment noted. It states the commenter's preference for an LPA.

2. *Additionally, the benefits of a modern Bus Rapid Transit System will be felt by the community at large both immediately, and for generations to come. As to the immediate benefits, the proposed projects could potentially create as many as 3000 new jobs in the construction industry alone.*

   Response: Comment noted. The project agrees with this statement.

3. *As always, work opportunity creates tax revenue and greater spending, which helps to benefit our economy overall.*

   Response: Comment noted. The project agrees with this statement.

4. *As to the future benefits, most are obvious, but worth repeating. Future generations will have meaningful and viable options to choose from when deciding how they commute to and from work.*

   Response: Comment noted. The project agrees with this statement.

5. *Also, an improved public transportation system would bring about greater access to the outlying communities, particularly Kapolei, which will expedite the growth of Oahu's Second City.*

Response: Comment noted. The project agrees with this statement.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

LAND USE RESEARCH
FOUNDATION OF HAWAII
700 Bishop Street
Suite 1928, Amfac Bldg.
Honolulu, Hawaii 96813
Phone 521-4717
Fax 536-0132

October 12, 2000

Ms. Cheryl Soon, Director
Department of Transportation Services
711 Kapiolani Boulevard. Suite 1200
Honolulu, HI 96813

Dear Ms. Soon

RE: DEIS: PRIMARY CORRIDOR PROJECT

I am Dan Davidson, Executive Director of the Land Use Research Foundation (LURF) of Hawaii, offering this testimony in support of the Bus Rapid Transit Alternative as the preferred alternative for improving mobility in Honolulu. We have analyzed the "No-Build" and "Transportation System Management" (TSM) alternatives as well and believe that the Bus Rapid Transit plan offers the best results. This is especially true in view of the fact that Bus Rapid Transit includes all of the elements of the TSM plan. LURF represents many leeward Oahu developers so the new "hub and spoke" bus system is important to us.

Regarding the process leading to the selection of the preferred alternative, the Trans2K program was one of the best community-based planning processes that I have seen in Honolulu. Every community had an opportunity to participate in shaping its transportation options.

While we fully support the Bus Rapid Transit plan, LURF also believes that it is critically important to fund leeward Oahu highway projects, both City and State, that will be needed to accommodate the planned growth of the City of Kapolei and other important residential, resort, and commercial projects in the region. We believe the funding of Bus Rapid Transit and the Ewa Regional Highway Master Plan needs to be well coordinated.

Thank you for this opportunity to express our views.

LAND USE RESEARCH
FOUNDATION OF HAWAII
700 Bishop Street
Suite 1928, Amfac Bldg.
Honolulu, Hawaii 96813
Phone 521-4717
Fax 536-0132

November 14, 2000

Duke Bainum, Chair
and Committee Members
Committee on Transportation
Honolulu Hale
530 South King Street
Honolulu, HI 96813

Dear Chair Bainum and Committee Members:

RE: RESOLUTION 00-249: SELECTION OF A LOCALLY PREFERRED ALTERNATIVE FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

I am Dan Davidson, Executive Director of the Land Use Research Foundation (LURF) of Hawaii, offering this testimony in support of Resolution 00-249 regarding the selection of the Bus Rapid Transit Alternative as the locally preferred alternative for the City's primary corridor transportation project. In our opinion, Bus Rapid Transit does the most to improve mobility and improve future transportation options for Oahu. We have analyzed the "No-Build" and "Transportation System Management" (TSM) alternatives as well and believe that the Bus Rapid Transit plan offers the best results for the money. This is especially true in view of the fact that Bus Rapid Transit includes all of the elements of the TSM plan. LURF represents many leeward Oahu developers so the new "hub and spoke" bus system is important to us.

Regarding the process leading to the selection of the preferred alternative, the Trans2K program was one of the best community-based planning processes that I have seen in Honolulu. Every community had an opportunity to participate in shaping its transportation options.

While we fully support the Bus Rapid Transit plan, LURF also believes that it is critically important for both the City and State to fund leeward Oahu highway projects that will be needed to accommodate the planned growth of the City of Kapolei and other important residential, resort, and commercial projects in the region. We believe the funding and construction of Bus Rapid Transit and these leeward highway improvements needs to be well coordinated. We believe this important concept is supported in the City's DEIS for this project.

Thank you for this opportunity to express our views.

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Dan Davidson, Executive Director
Land Use Research Foundation of Hawaii
700 Bishop Street, Suite 1928
Amfac Building
Honolulu, Hawaii 96813

Dear Mr. Davidson:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your oral testimony at the September 25, 2000 Special Transportation Committee Meeting, your oral testimony at the formal Public Hearing, October 12, 2000 letter, November 14, 2000 letter, and your oral testimony at the November 14, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS. Part B responds to your oral testimony at the April 20, 2002 public hearing regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *I'm Dan Davidson of LURF testifying tonight in support of the Bus Rapid Transit alternative. I'd like to make two points. One, the process was, I think, extraordinary for a planning process. It's kind of ironic that the better the process is before it gets to you the sort of quieter it is and you're probably pretty happy about that. The second thing is that I think it's important to come up with a real world buildible, affordable plan.*

   Response: Comment noted. It states the commenter's preference for an LPA.

2. *I do echo Henry Eng's comment that we do think that both this plan and the Ewa Regional Highway Plan are very important and we'll be looking especially to the OMPO Policy Committee to work its magic to figure out how to fund both of those.*

   Response: The Oahu Regional Transportation Plan Update (TOP 2025) includes both the BRT project and highway improvements in the Ewa / Kapolei area. TOP 2025 is required to be financially constrained to expected federal funding.

3. *I'm offering this testimony in support of the Bus Rapid Transit Alternative as the preferred alternative for improving mobility in Honolulu. We've analyzed the No-Build and the TSM alternatives as well and believe that the Bus Rapid Transit plan offers the best results. This is especially true in view of the fact that Bus Rapid Transit includes all of the elements of the TSM plan.*

Response: Comment noted. It states the commenter's preference for an LPA.

4. *Regarding the process leading to the selection of the preferred alternative, the Trans2K program was one of the best community-based planning processes that I have seen in Honolulu. Every community had an opportunity to participate in shaping its transportation options.*

   Response: Comment noted. It is a statement of opinion.

5. *While we fully support the Bus Rapid Transit plan, we also believe that it is critically important to fund leeward Oahu highway projects, both City and State, that will be needed to accommodate the planned growth of the City of Kapolei and other important residential, resort and commercial projects in the region. We believe that the funding of the Bus Rapid Transit plan and the Ewa Regional Highway Master plan needs to be carefully coordinated.*

   Response: DTS agrees with this statement. See response to comment #2.

6. *Let me also add that another organization which I'm involved, LOTMA, Leeward Oahu Transportation Management Association, also is in support of the Bus Rapid Transit plan and will be submitting comments prior to the end of your comment period.*

   Response: Comment noted. It states the commenter's preference for an LPA.

Part B – SDEIS Comments

7. *I'm speaking in support of the BRT system. My group, the Land Use Research Foundation, is a landowner/developer group comprised of major Hawaii landowners and developers all over the state, with an emphasis in Ewa and Central Oahu. Our groups is very much in support of this program, because it will create transportation options, transportation choices, and ability for increased mobility. That is critical for landowners and developers.*

   Response: Comment noted.

8. *I want to just make a couple of points about – first about the process. I said, a couple of years ago at the City Council, when it chose BRT as the locally preferred alternative, that the Trans 2K process was about the best community grass roots process I'd ever seen. And I stand by that comment. All over the islands, people got to work on transportation solutions, transportation options, not in the public hearing format, but actually in a working format. You can't do any better than that. And I salute the City for the process it chose to employ.*

   Response: Thank you for supporting our community involvement process which will continue throughout the project.

9. *The other major comment I'd like to make – and this will show my age a little bit – is that I was around in 1980 when Mayor Anderson killed heavy rail. I was around in '92 when the Council killed light rail. And in both instances, a lot of people showed up and said, "Gee whiz. We've got to study it some more." We can't afford strike three, with a lot of people saying, "Gee, let's study BRT some more. Let's lose the federal funding for the third time. And maybe we'll come up with some bright new ideas." This is an excellent start, and it should be pursued.*

   Response: Comment noted. It is a statement of preference for the Refined LPA.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under seperete cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

THE LEAGUE
OF WOMEN VOTERS OF HONOLULU
49 SOUTH HOTEL STREET, ROOM 314 HONOLULU, HAWAII 96813 PH. (808) 531-7448

November 6, 2000

Ms. Cheryl Soon, Director
Department of Transportation Services
Honolulu, HI 96813

Dear Ms. Soon:

Re: Major Investment Study/Draft Environmental Impact Statement of the Primary Corridor Transportation Project

The League of Women Voters of Honolulu welcomes the opportunity to comment on this DEIS. We would like to commend the Department of Transportation Services on its public outreach program for the proposed transportation plan. We especially appreciate your meeting with us to discuss the issues

We think that the Bus Rapid Transit Plan is a well-thought-out solution to Honolulu's future transportation problems which will give people a viable alternative to automobiles. However, it is the League's opinion that the people of Honolulu need considerably more time to understand the impacts of in-town dedicated bus lanes before this concept is implemented. We think people need to be exposed to this concept, and discuss it thoroughly before they can perhaps embrace it. Even though you did have an excellent outreach program, the vast majority of the public is probably unaware of the City's intention to implement dedicated bus lanes in 2001.

For the near future the League believes that the Transportation System Management alternative, the hub-and-spoke bus network, should be fully implemented with its highway improvements. Since the Pearlridge and Middle Street and other transit centers have not yet been built, we feel that the system should be completed and given a reasonable operational period to be evaluated.

We would like to see a Development Plan for the Primary Urban Center (PUC) in place before construction of center-lane transit stops and dedicated bus lanes. Exploration and discussion of the BRT concept in the context of completing the PUC Development Plan would seem to be appropriate. We would expect that the many PUC Neighborhood Boards that have expressed concern about the intensive development in the August 1999 draft PUC Development Plan would also support this idea. The adoption of a new Development Plan should precede the construction of transit stations and other facilities in the in-town area of the PUC.

The League is heartened by the City's commitment to an enhanced bus system and looks forward to continuing discussions with you on proposals to expand and improve it.

Sincerely,

Pearl Johnson

Pearl Johnson, President
League of Women Voters of Honolulu

THE LEAGUE
OF WOMEN VOTERS OF HONOLULU
49 SOUTH HOTEL STREET, ROOM 314 HONOLULU, HAWAII 96813 PH. (808) 531-7448

May 7, 2002

MAY - 7 2002

Ms. Cheryl Soon, Director
Department of Transportation Services
Honolulu, HI 96813

Dear Ms. Soon:

Re: Supplemental Draft Environmental Impact Statement for the Primary Corridor Transportation Project

The League of Women Voters of Honolulu welcomes the opportunity to comment on this SDEIS. We would like to commend the Department of Transportation Services on its public outreach program for the proposed transportation plan. We especially appreciate your meeting with us to discuss the issues.

The League did not come to an agreement on the complete Bus Rapid Transit Plan. However, we did agree that the first segment from Iwilei to Waikiki should be implemented and carefully evaluated before proceeding with subsequent portions of the plan.

As we have stated in previous letters, we would like to see a Development Plan for the Primary Urban Center (PUC) in place before construction of center-lane transit stops and dedicated bus lanes. Exploration and discussion of the BRT concept in the context of completing the PUC Development Plan would seem to be appropriate. The adoption of a new Development Plan should precede the construction of transit stations and other facilities in the in-town area of the PUC.

The League supports the City's commitment to an enhanced bus system and looks forward to continuing discussions with you on proposals to expand and improve it.

Sincerely,

Pearl Johnson

Pearl Johnson, President
League of Women Voters of Honolulu

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD11/00-05371R
TPD5/02-01823R

Ms. Pearl Johnson, President
League of Women Voters of Honolulu
49 South Hotel Street, Room 314
Honolulu, Hawaii 96813

Dear Ms. Johnson:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your November 6, 2000 letter regarding the MIS/DEIS. Part B responds to your May 7, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *We would like to commend the Department of Transportation Services on its public outreach program for the proposed transportation plan. We especially appreciate your meeting with us to discuss the issues.*

   Response: Thank you for your acknowledgments.

2. *We think that the Bus Rapid Transit Plan is a well-thought-out solution to Honolulu's future transportation problems that will give people a viable alternative to automobiles.*

   Response: Comment noted. It is a statement of opinion.

3. *However, it is the League's opinion that the people of Honolulu need considerably more time to understand the impacts of in-town dedicated bus lanes before this concept is implemented. We think people need to be exposed to this concept, and discuss it thoroughly before they can perhaps embrace it. Even though you did have an excellent program, the vast majority of the public is probably unaware of the City's intention to implement dedicated bus lanes in 2001.*

   Response: On November 29, 2000, the City Council adopted a resolution identifying the Bus Rapid Transit (BRT) Alternative as the Locally Preferred Alternative (LPA). At that time the Council directed DTS to continue the public involvement commitment during the Primary Corridor Transportation Project Preliminary Engineering/Final Environmental Impact Statement (PE/FEIS) phase. Community working groups were established by geographical areas (Pearl City/Aiea, Kalihi, Downtown/Kakaako, Mid-Town/University, and Waikiki) to provide input and feedback on the proposed BRT project to the technical staff, while simultaneously providing a greater in-depth understanding about BRT and what it means for the community. The working group format

enabled community representatives to discuss specific issues and potential design solutions directly with the project's transportation and environmental planners. Working group members exchanged information on community needs and technical details of the BRT schemes. The project team then carried out additional studies and developed project refinements as a result of working group discussions.

In addition, the Oahu Trans 2K public workshops continue being held to inform the public about the project refinements identified through the Working Group meetings. Also, to keep the public informed since the adoption of the LPA two Progress Reports (newsletters) were published and distributed to over 10,000 recipients.

Even after the NEPA process has concluded and the Record of Decision (ROD) has been issued, public involvement will continue in many areas, such as planning, design and construction of transit centers, transit stops, joint development, streetscapes, landscaping, street tree master plan, substation location and design studies, aesthetic design of vehicles, ITS and particulars of the ticketing system.

4. *For the near future the League believes that the Transportation System Management alternative, the hub-and-spoke bus network, should be fully implemented with its highway improvements.*

   Response: Comment noted. It states the commenter's preference for a LPA.

5. *We would like to see a Development Plan for the Primary Urban Center (PUC) in place before construction of center-lane transit stops and dedicated bus lanes. Exploration and discussion of the BRT concept in the context of completing the PUC Development Plan would seem to be appropriate. We would expect that the many PUC Neighborhood Boards that have expressed concern about the intensive development in the August 1999 draft PUC Development Plan would also support this idea. The adoption of a new Development Plan should precede the construction of transit stations and other facilities in the in-town area of the PUC.*

   Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

6. *The League of Women Voters of Honolulu welcomes the opportunity to comment on this SDEIS. We would like to commend the Department of Transportation Services on its public outreach program for the proposed transportation plan. We especially appreciate your meeting with us to discuss the issues.*

   Response: Thank you for reviewing the SDEIS. We appreciate your interest in the project and are glad to meet with you anytime.

7. *The League did not come to an agreement on the complete Bus Rapid Transit Plan. However, we did agree that the first segment from Iwilei to Waikiki should be implemented and carefully evaluated before proceeding with subsequent portions of the plan.*

   Response: We appreciate your support of the initial section of the BRT being constructed from Iwilei to Waikiki.

8. *As we have stated in previous letters, we would like to see a Development Plan for the Primary Urban Center (PUC) in place before construction of center-lane transit stops and dedicated bus lanes. Exploration and discussion of the BRT concept in the context of completing the PUC Development Plan would seem to be appropriate. The adoption of a new Development Plan should precede the construction of transit stations and other facilities in the in-town area of the PUC.*

   Response: See response to comment #5.

9. *The League supports the City's commitment to an enhanced bus system and looks forward to continuing discussions with you on proposals to expand and improve it.*

   Response: Thank you for your support.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

LOTMA Leeward Oahu Transportation Management Association

October 16, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

DEIS Primary Corridor Transportation Project

LOTMA has previously commented on this project and received your consideration (August 16, 2000) of our comments.

We support the BRT alternative, as a preferred option, which offers a more comprehensive approach to enhancing mobility to and from the Leeward area.

At the same time, we believe full consideration must also be given to funding Leeward Oahu road improvement projects presently included in the Ewa Highway Transportation Master Plan. It is our view that both the BRT and the elements of that plan are needed in a coordinated fashion in order to best serve the total transportation needs of the public.

Thank you for your consideration of our views.

Very truly yours,

Henry Eng, AICP
Vice President, President-Elect

ms:01002000\K19869

Leeward Oahu Transportation Management Association

November 9, 2000

The Honorable Duke Bainum, Chair
and Members of the Transportation Committee
City Council
City and County of Honolulu
530 S. King Street
Honolulu, HI 96813

Dear Chair Bainum and Committee Members:

Resolution 00-249, Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project

I am Henry Eng, Vice President/President-Elect of LOTMA. LOTMA is an organization comprised of Leeward/Central area developers; including, the city and state. LOTMA is committed to improving mobility in the region and facilitating the development and use of alternative transportation opportunities that would maximize the use of existing and proposed transportation systems in the Leeward/Central areas. We have previously commented on this project and received consideration (August 16, 2000) of our comments from the city transportation director.

We support the BRT alternative as a preferred option. It offers a more comprehensive approach to enhancing mobility to and from the Leeward area. This option offers a reasonable cost-effective approach to meeting transportation needs for a growing area.

At the same time, we believe full consideration should be given to funding Leeward Oahu road improvement projects presently included in the Ewa Highway Transportation Master Plan. It is our view that both the BRT and the elements of the Ewa plan are needed in a coordinated fashion in order to best serve the regional transportation needs of the public.

Thank you for your consideration of our views.

Very truly yours,

Henry Eng, AICP
Vice President/President-Elect

ms:01002000\K19872

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD10/00-05138R

November 13, 2002

Mr. Henry Eng, AICP
Vice President, President-Elect
Leeward Oahu Transportation Management Association
Honfed Building
94-229 Waipahu Depot Road, Suite 407
Waipahu, Hawaii 96797

Dear Mr. Eng:

Subject: Primary Corridor Transportation Project

This is in response to your October 16 and November 9, 2000 letters and your oral testimony at the November 14, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We support the BRT alternative, as a preferred option, which offers a more comprehensive approach to enhancing mobility to and from the Leeward area.*

   Response: Comment noted. It states the commenter's preference for an LPA.

2. *At the same time, we believe full consideration must also be given to funding Leeward Oahu road improvement projects presently included in the Ewa Highway Transportation Master Plan. It is our view that both the BRT and the elements of that plan are needed in a coordinated fashion in order to best serve the total transportation needs of the public.*

3. Response: Comment noted. DTS agrees with this statement.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

THE LIBERTARIAN PARTY OF HAWAII

4/20/02

625 Keawe St, Honolulu, HI 96813 (808) 537-307

Testimony on

The City and County of Honolulu Council Resolution 00-249

Title:
RESOLUTION RELATING TO THE SUPPORT OF A FULLY INTEGRATED MASS TRANSIT SYSTEM AND TO THE SELECTION OF A LOCALLY PREFERRED ALTERNATIVE FOR THE PRIMARY CORRIDOR TRANSPORTATION

Please oppose Resolution 00-249

Under this resolution, Dillingham Street will become one of the worst traffic areas in the state. Two of the four lanes will be closed permanently, dedicated exclusively to the BRT aka the Bad Road Trip. We are also concerned about the city's proposal to close down the left hand turn lanes and run buses through the middle of street with BRT extended buses stopping on the route every two to four minutes and the plan to eliminate all the left turn accesses in the area. These BTR lanes will hit Honolulu drivers with a double whammy. Just think of the havoc that is caused when even one lane is closed due to a stalled auto. Unbelievable as it may sound the city plans on closing two lanes to all non BTR traffic on some of our most congested roads. As a further insult, the drivers and taxpayers of Hawaii will be footing the bill to have the city make our traffic problems worse, in the worst traffic areas. To compensate for the 50% reduction in lanes there would need to be a 50% reduction in car, bus and truck usage just to break even. Even if this pipe dream came true there would be no net advantage. You certainly don't see private investors racing to fund this exercise in government waste. Allow the great people of Hawaii to choose their preferred mode of transport individually. Not until, "The Bus" turns profitable will it be time to expand public transport.

Traffic jams, are caused by the government not building enough roads. Solution, build more roads. Recommendation, build more roads. Advice, build more roads. Also, widen existing roads. Add a second deck of roads. Sections of the H1 are jammed most of the time. Please fix.

Driving is a pleasure, without traffic jams. Less traffic jams benefit everyone in terms of safety, saved time, and fuel. In the saner society of the past, when a car stalled, the occupants, and the first motorists on the scene would work together to clear the lanes as quickly as possible. Nowadays, it seems the police cause traffic jams, and as shown by their inaction, have little regard for the stress traffic jams place on the public.

The proper course is to remove any legal or regulatory barriers which stand in the way of free and open competition in transportation. For example, to fill up unused passenger seats in privately owned cars why not legalize hitch hiking. Make it easy and legal for all drivers to accept passengers for hire at existing bus stops. Just think how efficient Hawaii transport would be with thousands of passengers building trust with thousands of drivers by the simple act of negotiating a reasonable fare.

Competition results in the most efficient use of resources, both capital and human, and results in the greatest prosperity for the people of Hawaii. There is a direct correlation between individual and economic freedom and prosperity. The great people of Hawaii deserve freedom and prosperity.

Thank you,

Roger Taylor, Chairman, Libertarian Party of Hawaii

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Roger Taylor
Chairman
Libertarian Party of Hawaii
625 Keawe St.
Honolulu, Hawaii 96813

Dear Mr. Taylor:

Subject: Primary Corridor Transportation Project

This is in response to your oral and written testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm Roger Taylor, chairman of the Libertarian Party of Hawaii. We oppose BRT.*

   Response: We appreciate you attending the public hearing and expressing your views regarding the proposed project.

2. *Under this resolution, Dillingham Street would become one of the worst traffic areas in the state. Two of the four lanes would be permenently closed, dedicated exclusively to the BRT, which one of our members nicknamed Bad Road Trip.*

   Response: As documented in Chapter 4 of the FEIS, there will be enough people diverted out of the cars onto public transit for Dillingham Boulevard to operate effectively with one general purpose lane in each direction, plus turn lanes at major intersections. Along half of the route, the general purpose lanes will be extra wide so that stopped and right-turning vehicles will not hold up traffic behind it. Along the other half, bus turnouts will be installed so that stopped buses do not block traffic.

   Because of the diversion of people from autos to transit, even with the BRT lanes, the traffic LOS along Dillingham Boulevard will be equal to or better than conditions with the No-Build Alternative. Additionally, traffic LOS on parallel streets such as N. King Street and Nimitz Highway will be equal to or in most cases better with the BRT lanes on Dillingham Boulevard than without them.

   Moreover, the exclusive BRT lanes on Dillingham Boulevard will enable Dillingham Boulevard to carry 3 times the number of people that it can carry today.

3. *We are also concerned about the City's proposal to close down the left-hand turn lanes and run buses through the middle of the street, with BRT extended buses stopping on the route every two to four minutes, and plan to eliminate all the left turn access to the area.*

   Response: Left-turns will be retained at 9 of the 10 locations where they exist today.

4. *The BRT lanes would hit Honolulu drivers with a double whammy. Just think of the havoc that is caused when even one lane is closed due to a stalled auto. Unbelievable as it may sound, the City plans on closing two lanes to all non-BRT traffic on some of our most congested roads.*

   Response: See response to comment # 2.

5. *As a further result, the drivers and taxpayers of Hawaii will be footing the bill to have the City make our traffic problems worse in the worst traffic areas.*

   Response: See response to comment # 2.

6. *To compensate for the 50 percent reduction in lanes, there would need to be a 50 percent reduction in car, bus and truck usage just to break even.*

   Response: As shown in Chapter 4 of the FEIS there will be a sufficient number of people diverted out of their cars to offset the conversion of lanes on Dillingham Boulevard.

7. *You certainly don't see private investors racing to fund this exercise in government waste.*

   Response: Transit systems throughout the nation are subsidized. The reasons for doing so include the recognition that many members of the community are either too young, too old, too poor, or are physically unable to drive a car, and are therefore dependent on public transportation for their mobility. Additionally, it is viewed as more cost effective to spend public funds subsidizing transit than on building new or widened roads to accommodate these same people in automobiles.

8. *Allow the great people of Hawaii to choose a preferred mode of transportation individually.*

   Response: The Honolulu residents will have individual choice in determining whether or not to use TheBus, BRT, walk, bicycle, or drive a car.

9. *Not until TheBus turns profitable will it be time to expand public transportation.*

   Response: The reason that the City took over the bus system is that the private sector could no longer make a profit running it and were in the process of abandoning all but the profitable routes. Since a significant segment of the population is dependent on transit for their mobility, the City with the public's support stepped in to ensure that these people would not be left immobile.

   There is a role for the private sector in the Refined LPA, which is to provide contracted out circulator services.

10. *The proper course to take is to remove any legal or regulatory barriers which stand in the way of free and open competition in transportation. What comes to mind would be privately-operated radio-dispatched van systems to take people door to door. Competition results in the most efficient use of resources, both capital and human, and results in the greatest prosperity for the people of Hawaii. There's a direct correlation between individual and economic freedom and prosperity. The great people of Hawaii deserve freedom and prosperity.*

    Response: There are no legal or regulatory barriers to operating radio-dispatched vans, if someone in the private sector wanted to do it.

11. *Please oppose Resolution 00-249. Under this resolution, Dillingham Street will become one of the worst traffic areas in the state. Two of the four lanes will be closed permanently, dedicated exclusively to the BRT aka the Bad Road Trip.*

    Response: See response to comment #2.

12. *We are also concerned about the city's proposal to close down the left hand turn lanes and run buses through the middle of street with BRT extended buses stopping on the route every two to four minutes and the plan to eliminate all of the left turn accesses in this area.*

    Response: Left and U-turns will be permitted at most intersections on Dillingham Boulevard so that access to properties will not be an issue. These turns will be made on a separate green arrow, at which time the BRT will be given a red light.

13. *These BTR lanes will hit Honolulu drivers with a double whammy. Just think of the havoc that is caused when even one lane is closed due to a stalled auto. Unbelievable as it may sound the city plans on closing two lanes to all non BTR traffic on some of our most congested roads.*

    Response: See response to comment # 2.

14. *As a further insult, the drivers and taxpayers of Hawaii will be footing the bill to have the city make our traffic problems worse, in the worst traffic areas.*

    Response: See response to comment # 2.

15. *To compensate for the 50% reduction in lanes there would need to be a 50% reduction in car, bus and truck usage just to break even. Even if this pipe dream came true there would be no net advantage.*

    Response: See response to comment # 2.

16. *You certainly don't see private investors racing to fund this exercise in government waste.*

    Response: Comment noted.

17. *Allow the great people of Hawaii to choose their preferred mode of transport individually.*

    Response: The BRT will give residents another mode of transportation from which to choose.

18. *Not until "TheBus" turns profitable will it be time to expand public transport.*

    Response: Comment noted. It is a statement of opinion.

19. *Traffic jams, are caused by the government not building enough roads. Solution, build more roads. Recommendation, build more roads. Advice, build more roads. Also, widen existing roads. Add a second deck of roads. Sections of H1 are jammed most of the time. Please fix.*

    Response: The OMPO regional transportation plan calls for the widening and construction of new roads in selected areas.

20. *Driving is a pleasure, without traffic jams. Less traffic jams benefit everyone in terms of safety, saved time, and fuel. In the senar society of the past when a car stalled, the occupents, and the first motorists on the scene, would work together to clear the lenes as quickly as possible. Nowadays, it seems the police cause traffic jams, and as shown by their inaction, have little regard for the stress traffic jems place on the public.*

    Response: Comment noted. It is a statement of perception regarding the traffic conditions.

21. *The proper course is to remove any legal or regulatory barriers which stand in the wey of free and open competition in trensportation. For example, to fill up unusad passenger seets in privately owned cars why not legalize hitch hiking. Make it easy and legal for all drivers to accept passengers for hire at existing bus stops. Just think how efficient Hawaii trensport would be with thousands of passengers building trust with thousands of drivers by the simple act of negotiating a raesonable fere.*

    Response: Comment noted. It is beyond the scope of the project to determine the legalities associated with hitch hiking and private vehicles accepting passengers for hire.

22. *Competition results in the most efficient use of resources, both capitel end human, end results in the greatest prosperity for the people of Hawell. There is e direct correlation between individual and economic freedom and prosperity. The great people of Hawaii deserve freedom and prosperity.*

    Response: Comment noted. The Primary Corridor Transportation Project does not effect freedom and prosperity.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL O. SOON
Director

LIFE OF THE LAND

Ua Mau Ke Ea O Ka 'Aina I Ka Pono

Hawai'i's own local Community Action Group
Protecting our Fragile Natural & Cultural Resources
through Research, Education, Advocacy & Litigation

City and County of Honolulu
Dept. of Transportation Services
711 Kapiolani Blvd., Suite 1200
Honolulu, HI 96813

Office of Environmental Quality Control
235 South Beretania, Suite 702
Honolulu, HI 96813

Parsons Brinkerhoff Quade & Douglas, Inc.
Pacific Tower, Suite 3000
1001 Bishop St.
Honolulu, HI 96813

re: Primary Corridor Transportation Project

The cost of auto dependency is measured not only in dollars and cents, but also in human suffering. Between 1987 and 1997 alone, more than 1,500 people were killed in automobile accidents on Hawaii's roads and highways. Over 140,000 more were injured. Auto emissions are a major cause of global warming and gasoline is a source of soil contamination.

Over-dependence on automobiles discriminates against those who cannot drive, either because of age (many are too young or too old to drive) or disability. Programs for safe communities, anti-road rage, and traffic calming are needed to mitigate these unintended negative consequences of the automobile.

On Oahu, as in the rest of the United States, there is a growing recognition that the real, long-term costs of over-dependence on the automobile are simply too high. To reduce these costs, more choices of public transit need to be available for more people. The key question is, what investments are needed to make public transit a practical option in a balanced transportation system?

The obvious answer is mass transit. ..... Then there is the Draft EIS for the PCTP.

The BRT Alternative states that the number of people will rise by 300,000 over 20 years; the number of trips to/within downtown will rise by 300,000; one mile of loading zones will be removed from downtown; hundreds of parking places will be removed from downtown; and lanes will be dedicated to non-automobiles. The result:

"The BRT Alternative would not necessarily improve automobile movements through congested intersections."

How come all possible negative impacts are so sugar-coated? It does not take a rocket scientist to note that loss of lanes, loss of left-hand turn lanes, loss of parking and loading zones, and increased use of cars most certainly will have an impact on the movement of cars!

Reading the Draft EIS, one gets the initial feeling that transportation impacts are minimal, if they exist at all!

Anything controversial was either relegated to the Appendix (location of substations) or omitted. Why was the location of 22 electrical substations relegated to Appendix B which was not made publicly available, except by request? Because, including it in the main section would raise questions! Why exclude the location of site-specific structures in the main text (volume 1). Because some Neighborhood Boards have expressed concerns. Discussion omitted. However, a more careful reading of this DEIS leaves us with the impression that the writers are trying to cover something up! An EIS is by definition, a planning document, that reasonable and fairly evaluates alternatives. This EIS is designed to promote one alternative, and to avoid a realistic appraisal of impacts and mitigations.

"The City's land use policy for the primary transportation project requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy." (page S-3)

Q1. With regard to the statement on page S-3 ("The City's land use policy for the primary transportation project requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy."), how will planning them together but analyzing their impacts separately lead to sound planning?

Q2. "The Draft PUC Development Plan update calls for the PUC to capture 36 to 43 percent of Oahu's growth over the next 25 years." (S-4) With regard to the statement on page S-4 as stated above, isn't the Draft PUC Development Plan advisory only, with lots of shoulds instead of musts?

Q3. Doesn't the Draft PUC Development Plan leave lots of room for anything to be built?

Q4. "The TSM Alternative ... Where possible, existing bike lanes would be replaced by joint use bicycle/transit lanes." (S-12). With regard to the statement on page S-12 as stated above, will replacing existing bike lanes with multi-use bike lanes be safer or more dangerous for bicycle riders?

Q5. With regard to the statement on page S-12 as stated above, what is the safety of bicycles in the case of multi-use bike lanes based on?

Q6. With regard to the statement on page S-12 as stated above, for similar routes and times, which lane is more popular in terms of actual bicycle use, single purpose or multiple purpose lanes?

Q7. With regard to the statement on page S-12 as stated above, for similar routes and times, which lane is more dangerous in terms of actual bicycle use, single purpose or multiple purpose lanes?

Q8. With regard to the statement on page S-12 as stated above, what types of lanes cause the most bicycle accidents?

Q9. With regard to the statement on page S-12 as stated above, what types of lanes cause the most deadly bike accidents?

"The transit components of the BRT Alternative are compatible with land use plans and policies at the City and State levels--including goals of focusing growth within the Primary Urban Center and Kapolei." (S-13)

Q10. Are sound barriers along state roads within the purview of the county? "Other project structures, such as sound barriers along H-1 Freeway, would be sensitively designed within the context of their surroundings." (S-13)

Q11. Doesn't this assume the same growth rate regardless of the type of bus/rapid transit system built? "Reduced auto usage under the BRT Alternative would save about 39,000 barrels of oil each year in comparison to the

No-Build Alternative. The TSM Alternative would save about 8,600 barrels of oil per year compared to the No-Build." (S-13)

Q12. Does the statement "The City's land use policy for the primary transportation project requires that transportation and land use be planned" take into account the different carrying capacity of the city -- dependent upon the transportation system adopted?

Q13. If the BRT Alternative allows faster development, isn't it possible that the total use of oil will rise, even if per capita use of oil falls?

Q14. Which poses more impacts on endangered and threatened wildlife: average per capita pollution or total pollution?

"The No-Build Alternative would not entail any relocations. The number of relocations associated with the TSM and BRT Alternatives depends on which sites are selected for the Iwilei and Middle Street transit centers. ... Since federal funds would be used to assist project construction, the project would be subject to provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR Part 24, 42 U.S.C. 4601, et seq.). State law on relocations is provided in Hawaii Revised Statutes (HRS) Chapter 111, Assistance of Displaced Persons." (S-15) "Access to docks, terminals and other water-related facilities would be maintained through close coordination with all public agencies having harbor-related responsibilities." (S-17) "An archeological contingency procedure would be developed in the unlikely event that unanticipated resources are encounted during construction." (S-17)

Q15. "Unanticipated Resources" means what?

Q16. What is an "archeological contingency procedure"?

"None of the alternatives would cause a disproportionately high adverse health or environmental effect on any population group, including minority and low-income populations. Benefits to these groups would be substantial." (ES-21,22) "The quality of life for Oahu's residents and visitors will continue to decrease unless the transportation system in the primary transportation corridor is modified to better accommodate existing and future travel necessary for daily life." (1-1)

Q17. As we are currently pulling ourselves out of a nine year recession, "Is our quality of life decreasing right now"?

Q18. "The purpose of the Primary Corridor Transportation Project is to examine candidate investments that would improve the efficiency of both the transportation system in the primary transportation corridor, and the connections between the corridor and the rest of the island." (1-1) What is meant by "candidate investments"; donations by politicians?

Q19. "The City's land use policy for the primary transportation corridor requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy." (1-5) How does mauka-makai transit mesh with "A high capacity [east-west] transit spine through the PUC would enhance in-town mobility" "A high capacity transit spine through the PUC would enhance in-town mobility and provide transit connections between the many travel markets that exist within the Urban Core." (1-6)

"The state and City have a development policy encouraging growth in only two areas: the PUC and Ewa." (1-7)

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Q20. According to figures in this document, the expected growth rate would be: PUC=45%; Ewa=30%; Other=10%. If 3 out of 10 new residents will live outside of the PUC and Ewa, why do you say: "encouraging growth in only two areas"? Table 1.2-1 Projected Population Summary and paragraph
Waikiki 2,300 * Other PUC 86,800 * Ewa 59,800 * Central Oahu 34,391 * Other 25,909 * Total 209,200

"More than 127,000 people are expected to be living in the Ewa area in 2025, a growth of 88 percent in 28 years. The PUC will also experience significant growth, increasing by about 89,000 people. The Central Oahu population is projected to increase from 130,544 in 1997 to 164,935 in 2025, a gain of 26 percent." (1-10) (3-29)

"The PUC DP introduces the concept of higher-density housing supported by extensive urban amenities." (1-10)

"Redevelopment in the PUC is designated primarily for the area makai of the H-1 Freeway between Middle Street and Kapahulu Avenue. A secondary growth/redevelopment area is located between Aiea and Pearl City. These areas have the most favorable conditions for accommodating new housing, and 90 to 95% of the expected growth in population by 2025 is expected to occur within these redevelopment areas." (1-11)

Table 1.2-8 Resident Person Trip Demand Within Selected Travel Markets

Travel Market	1995	2025
Within Urban Core	1,100,901	1,410,500
Suburban to Urban Core	498,685	563,542
Ewa/Kapolei to Urban Core	28,622	48,609
Suburban to Ewa/Kapolei	71,776	179,983

NEPA regulations direct federal agencies preparing an EIS to engage in a public scoping process. The purpose of the process is to establish the scope of the EIS so that the document is responsive to public and agency concerns. Scoping is intended to identify potential issues early and ensure they are properly studied; avoid excessive attention to issues of little significance; produce a DEIS that is thorough and balanced; and avoid delays occasioned by an inadequate EIS." (1-26)

Q21. The best-fit alternatives, the choices that we are reviewing, were made without public review, right? "The alternatives described in this Chapter evolved over the course of developing the MIS/DEIS through an iterative process wherein a wide-range of options was progressively analyzed in increasing detail until it was winnowed down to the 'best fit' alternatives." (2-1)

Q22. Doesn't NEPA require all reasonable alternatives? Where did you get the term "best-fit alternatives"? Who's best-fit? How is the number of buses determined in each scenario? Don't cities tend to vary in their population/number-of-buses ratio? Wouldn't a lower ratio have a greater impact than a high ratio? Will the EIS be used to calculate the desired ratio? Will some planner, without public input, decide that number?

Q23. What is the relationship between "reasonable candidate investments" and "best-fit alternatives"?

Q24. What specific documents mention SISP? Please explain fully: "The concept of a direct connection between Keehi Interchange and Kakaako via Sand Island was developed to provide a more direct and scenic gateway entry to Waikiki and Kakaako for visitors and others from the Airport and points ewa. This is called the Sand Island Scenic Parkway, or SISP." (2-2)

Q25. How would the city do this? "Highway Alternative to the Regional Transit System. ... New express lanes for vehicles with 3 or more occupants would be constructed within the median of the H-1 Freeway in each direction between Kapolei and Managers Drive." (2-42)

Q26. Hasn't the State DOT found that P.M. zip lanes will not work? What has changed?

The A.M. zipper lane, the A.M. HOV/express lanes, and the P.M. HOV lanes currently in operation would be maintained." (2-42)

Q27. Are HOV's currently maintained?

Q28. Don't one out of three cars in the HOV contain only one person?

Q29. Isn't the limited enforcement precisely why so many disobey the law?

Q30. If all lanes were HOV, wouldn't the traffic pattern be identical? No enforcement? (This lack of enforcement excludes tickets given to accident victims, or cars crossing the yellow line by the airport where the zip lane merges with the other lanes).

"The City's land use policy for the primary transportation corridor requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy." (1-5) "The purpose of the Primary Corridor Transportation Project is to examine candidate investments that would improve the efficiency of both the transportation system in the primary transportation corridor, and the connections between the corridor and the rest of the island." (1-1) "The project's purposes and needs are broader than satisfying the suburban to Downtown commuter travel market. The purposes include fostering desired land use development patterns, enhancing the quality of in-town living and in-town mobility, and facilitating the development of livable communities throughout the island, but more importantly, in the PUC. Therefore, given the project purposes and needs, it would not be sufficient for a new or enhanced highway to just accommodate travel demand between suburban areas and Downtown. The other purposes and needs of the project would remain unsatisfied. Therefore, the highway alternatives ... would not be sufficient." (2-45)

"The City's land use policy for the primary transportation corridor requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy." (1-5) "Oahu Trans 2K revealed a clear community consensus that an important goal of any transportation program in the primary transportation corridor must be to foster livable communities." (2-46)

"The initial No-Build, Enhanced Bus/TSM, BRT and LRT alternatives were described in the project's EISPN and NOI. No responses were generated by the NOI. Some of the comments received in response to the EISPN pertained to alternatives. Comments on the alternatives from the agency and public scoping meeting duplicated the comments received in response to the EISPN." (2-46)

Q31. "EISPN Comments ... Why is an extension to Kahala not considered? (Outdoor Circle; Life of the Land): The analysis of future travel demand and existing infrastructure capacity indicates that the major shortfall in transportation capacity extends from the PUC to the Ewa area." (2-48)

Q32. By what specific method were the boundaries chosen?

Q33. Why is Mamala Bay included but Kahala excluded?

Q34. Why is Hickam AFB included but parts of Nuuanu excluded?

Q35. "EISPN Comments ... Enhanced Bus Alternative that increases both bus and auto efficiency (Life of the Land): The TSM and BRT Alternatives enhance bus and auto efficiency to varying degrees." Our question was: if Oahu has two cities and if both are to function, shouldn't express buses from throughout Oahu go regularly to both cities?

Q36. For example, one circle island bus that goes to Ala Moana and another that goes to Kapolei?

Q37. If the idea is really to get people out of cars, then shouldn't one model consist of double the number of buses you are planning?

Q38. Wouldn't such an "Enhanced Bus System, with regular express service 18 hours a day, provide people with the assurances that they can get places on time if they take a bus? If each Express Route had four buses per hour, one going to each of Kapolei, the Airport, Downtown/Waikiki, and the Universities (UH, Chaminade), wouldn't a lot more people take the Express Buses?

"The PUC is so important in terms of islandwide trip generation and trip attraction that transportation planning for the PUC cannot be limited to only the PUC. Connections between the PUC and other parts of the island must also be considered." (2-49)

"The summaries are based on a set of 23 planning districts that consist of the 762 small subareas of the island, called 'transportation analysis zones' (TAZs), used by computerized travel demand modeling programs." (3-39)

Q39. Please give several specific examples of "transportation analysis zones"

"About 100,000 bicycles are registered in Honolulu" (3-41)

"A 'sector' is defined as a large but recognizable geographic entity having generally consistent land use and visual character. Sectors are comprised of smaller units called 'landscape units.' Thirteen sectors and 70 landscape units along potential alignments were identified in the primary transportation corridor." (3-52)

Q40. Please give several specific examples of "landscape units"

"Twenty-four State, federal and private databases were searched for sites containing hazardous materials in the primary transportation corridor." (3-75) Superfunds = zero.

Q41. Pearl Harbor is a Superfund. It was placed on the National Priorities List because of contamination at a number of sites, including the Aiea Laundry. Please list each of the 24 state, federal and private databases that left Pearl Harbor out of their listing of Superfund sites.

"The City's land use policy for the primary transportation project requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy." (S-3) "To date, no potential TCPs [Traditional Cultural Properties or Practices] associated with the project have been identified." (3-83)

Q42. Are you molding a land/transportation growth system that will allow for the "orderly" expansion of the population by 250,000 new people in 20 years, and increasing the "efficient" movement of those people, and yet feel that there will be no positive or negative impact on cultural sites (increased use, overuse) for anything included as a potential TCP?

Q43. Please elaborate on the reports you are relying on, the studies you have conducted, and the depth of your analysis.

"By 2025, key intersections in the Urban Core would be near or at capacity under all alternatives. However, only the BRT Alternative would provide a non-congested travel mode through these intersections, achieving faster transit travel times within the Urban Core." (4-1,2)

Q44. Are you saying that adopting the proposed land use/transportation policies stated in this document, will only keep us even with the current levels of congestion?

Q45. What policies would get us ahead of the curve?

Q46. Please include those policies that would do so, even if they failed to make your "best-fit" alternatives list.

"Because the TSM Alternative includes an extensive network of semi-exclusive lanes in the PUC, bicycle usage could be affected where existing bike lanes are converted to joint-use bicycle/transit lanes. A policy would be established under the TSM Alternative allowing bicycles to use the semi-exclusive bicycle lanes." (4-24)

"The general approach to enhancing bicycle travel under the BRT Alternative includes ... bike racks ... bike parking facilities ... A separate bike lane would be provided, or an alternate route would be identified, where the transitway would interfere with the present pattern of bicycle travel." (4-24)

"Although most of the In-Town BRT alignment is not designed as a 'bikeway', roadways along the alignment are used by cyclists to varying degrees because of the paucity of bikeway facilities." (4-25)

Q47. How would the different alternatives change the "paucity of bikeway facilities" that currently exists?

"A bikeway can be a bike route, lane or path. ... Most of Honolulu's existing bikeways are not linked systematically ... When bikeways are not continuous, cyclists must use roadways that are not designed as bikeways. More confident cyclists often use the streets. Less confident cyclists tend to ride on sidewalks or landscaped areas off the roadway, although riding on sidewalks in business districts, such as Downtown, is illegal." (4-25)

Q48. How should reluctant bikers, such as those who have had vehicular-bicycle-interactions (cars-smashing-into-bikes), deal with multi-use lanes replacing dedicated lanes?

"The BRT Alternative would indicated government's willingness to invest in a transit system thereby providing a sense of permanence in the primary transportation corridor, a policy action which has a strong influence in generating much needed developer interest in cities elsewhere." (5-4)

Q49. What is meant by the term "sense of permanence"?

Q50. How much is the city willing to invest in dedicated bike lanes?

Q51. Are bikers at risk of achieving a sense of impermanence?

"The major investment decisions center on how well the transit alternatives can shape growth, improve the quality of life, make the city and its neighborhoods more livable, and 'Keep the Country Country' by containing sprawl." (5-4)

Q52. How do you define "sprawl"?

Q53. What are three examples of existing sprawl on Oahu?

Q54. If sprawl does not exist on Oahu, how will any plan stop sprawl?

Q55. If sprawl does exist on Oahu, how specifically will any plan stop more sprawl from occurring?

Q56. Please state how increasing the number of residents in Central Oahu by 35,000 and the number of residents elsewhere by 25,000 will contain sprawl?

Q57. If the first and second cities both grow rapidly, while growth elsewhere continues at its present rate, how is sprawl being contained?

Q58. Please list all successful efforts to contain sprawl on Oahu in the last 10 years.

"The BRT Alternative would provide greater growth-shaping opportunities as compared to the TSM and No-Build Alternatives." (5-4)

Q59. What is meant by "growth-shaping opportunities"?

Q60. Are there negative impacts sometimes associated with "growth-shaping"?

"The connecting transit services that feed into the backbone transit line also can help focus development into targeted areas. Thus, the BRT Alternative could offer growth-shaping opportunities, if it was accompanied by transit supportive local policies. This includes zoning, parking, and mixed-use permissive land use policies.

This assessment is consistent with the views of a panel of experts convened for this project in July 1999, which was comprised of land use/transportation planners and developers from other parts of the United States and Honolulu. The panel was assembled to address land use and growth-shaping aspects of the transit alternatives.

Among the findings and recommendations of the land use panel was the conclusion that without a major investment in a permanent fixed transit system, the desired growth pattern in the PUC would very likely not happen. The land use panel viewed the PUC as being 'ripe' for development and redevelopment when the economy rebounds. The panel agreed that appropriate implementation tools need to be established that favor development in the PUC, and discourage or prohibit development where it is not desired.

It was concluded by the land use panel that many of the ingredients are in place in Honolulu to implement a transit system that could be influential in accomplishing the City's stated land use goals. This conclusion was conditioned upon a comprehensive transit/land use implementing strategy developed and managed by a strong land development implementation body." (5-6)

Q61. What are specific "transit supportive local policies"

Q62. What would be the geographic range of "transit supportive local policies" dealing with zoning issues?

Q63. What would be the geographic range of "transit supportive local policies" dealing with parking issues?

Q64. What would be the geographic range of "transit supportive local policies" dealing with mixed-use issues?

Q65. What would be the geographic range of "transit supportive local policies" dealing with permissive land use issues?

Q66. What would be the geographic range of "transit supportive local policies" dealing with variances?

Q67. What does "'ripe' for development" mean?

Q68. The following statement uses the term likely: "Among the findings and recommendations of the land use panel was the conclusion that without a major investment in a permanent fixed transit system, the desired growth pattern in the PUC would very likely not happen". Under what conditions could the desired growth pattern occur without an investment in a transit system?

Q69. What is meant by a "permanent fixed transit system"?

The following statement talks about discouraging and prohibiting some development: "The panel agreed that appropriate implementation tools need to be established that favor development in the PUC, and discourage or prohibit development where it is not desired."

Q70. What "appropriate implementation tools" are needed to discourage development?

Q71. What "appropriate implementation tools" are needed to prohibit development?

Q72. What specific development would be discouraged or prohibited?

Q.73 Does "discouraged development" allow for variances?

Q74. Does "prohibited development" allow for variances?

Q75. How has the City government dealt with this issue in the past?

Q76. What is likely to change?

Q77. Will new implementation tools protect prime agricultural lands?

Q78. Will new implementation tools protect rural lands?

Q79. Will new implementation tools protect the community character of established communities?

Q80. What are the very specific in outlining the various ways the panel felt development could be discouraged?

Q81. What are the very specific in outlining the various ways the panel felt development could be prohibited?

Q82. What are the very specific in outlining the various ways the county should change existing ordinances so that undesired development could be discouraged?

Q83. What are the very specific in outlining the various ways the county should change existing ordinances so that undesired development could be prohibited?

Q84. What specifically did the panel mean by "This conclusion was conditioned upon a comprehensive transit/land use implementing strategy developed and managed by a strong land development implementation body"?

Q85. "Transportation and circulation are integral functions within a livable city. They should, therefore, be tightly integrated with land use management controls and policies." (5-8) What does "tightly integrated with land use management controls and policies" mean?

Q86. What would happen if transportation and circulation were only strongly integrated?

Q87. How does one measure degrees of integration?

Q88. Does "tightly integrated" mean that land use and transportation are dependent upon each other?

Q89. If not, how tight could they be with each other?

Q90. If so, doesn't dependent utility require a joint EIS?

Q91. What exactly is a "livable city"?

Q92. One that you can survive in?

Q93. Or one that you can have a life in?

"The No-Build Alternative do not support the General Plan policies" (5-8)

Q94. This statement sounds like "we must build to be in compliance." How can you complete a fair, reasonable, balanced presentation, if the No-Built is disqualified before comments arrive?

"The No-Build and TSM Alternatives do not support the General Plan policy of achieving full development of the PUC. Potential impacts of these alternatives include continued pressure to urbanize outlying agricultural lands, higher transportation costs and limited choices for urban lifestyles. Implementation of the No-Build and TSM Alternatives would be inconsistent with current and proposed growth policies, particularly in the PUC where it would diminish the effectiveness of proposed DP policies to create a livable city." (5-8)

Q95. What causes "continued pressure to urbanize outlying agricultural lands"?

Q96. How do developments in the PUC have any effect on developments in agricultural areas?

Q97. Are the development companies the same?

"At the corridor level, all of the alternatives are consistent with the Hawaii State plan and the State Land Use Commission (SLUC) land use designations." (5-9)

"No residential impacts are expected under any project alternative as a direct result of transit improvements. Whether to replace on-street parking in each impacted neighborhood is a policy to be decided by the City Council." (5-26)

"Displaced persons are entitled to replacement housing payments in addition to the cost of the displaced dwelling. ... No residential displacements are expected as a result of the proposed project." (5-29)

"Noise Impacts ... BRT Alternative ... There would be no impacts projected with a wayside-powered electric vehicle such as STREAM." (5-51)

"The City's land use policy for the primary transportation project requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy." (S-3) "With respect to onshore ecosystems, natural habitat is very limited along the roadways and at the sites that would be affected by any of the alternatives." (5-56)

Q98. Can any on-shore ecosystem be impacted from the BRT Alternative?

Q99. Will increased traffic, population, lights, urbanization have any possible impact on any native species?

Q100. "Increasing transit patronage (with the BRT Alternative) would reduce the non-point source pollution created by automobiles." (5-59) How?

Q101. While the percentage of people who take buses may rise, won't there be an actual rise in the number of actual people who drive cars?

Q102. How will that decrease water pollution?

Q103. Isn't a major source of non-point-source-pollution the result of stop/go?

Q104. Weren't "break pad wear and tear" what allowed federal highway monies to be used to study pollution in the Ala Wai Canal?

Q105. How will increased bus use decrease vehicular npsp?

Q106. "Overall, the island VMT under the TSM Alternative is projected to be slightly lower than the VMT under the No-Build Alternative because many travelers would shift from passenger vehicles to buses due to improved transit service." (5-62) What are the supporting and opposing documents/studies that would indicate people make decisions based on transit quality?

Q107. Will the number of vehicles rise under this scenario?

Q108. "This estimate assumes that hybrid in-town BRT vehicles would be used." (5-63) Would these hybrids be LEVs, SLEVs (equivalent to the Prius), or ZEV?

Q109. "Furthermore, an all-electric system would require approximately 11,300 kilowatts per day, which can be provided within the reserve capacity of existing power plants according to Hawaiian Electric Company." (5-63) What options exist for the use of fuel cells?

Q110. Can the electricity needed be generated directed from the sun, through photovoltaics, for example, on the roofs of bus stops?

Q111. What cities use such systems?

"The BRT Alternative would consume up to 39 thousand fewer barrels of oil than the No-Build Alternative, and up to 31 thousand fewer barrels than the TSM Alternative in the design year 2025." (5-63)

"The City's land use policy for the primary transportation project requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy." (S-3) "Since a key purpose of this project is to focus future development in the Urban Core and Kapolei, the cumulative impacts of this project are viewed as positive." (5-81)

Q112. What is a "transit oriented development"? (5-81)

Q113. Are "transit oriented development," as referred to on page 5-81, desirable?

Q114. What are some drawbacks of "transit oriented development"?

Q115. Can all possible proposed developments in the Urban Core and Kapolei be viewed as positive?

Q116. If this proposal generates another plan for a "360-degree rotating gondola" and "light show on the clouds" would the development be good?

"Subsequent urban development and redevelopment could displace existing land uses. These displacements would be specific and analyzed during the environmental review of the subsequent development projects." (5-81)

"Impacts on water resources are highly regulated." (5-82)
"Continuation of current low density development patterns ... is inconsistent with the project purpose of concentrating development." (5-81)

"In the absence of sufficient people-carrying capacity, it would be more difficult to achieve the desired concentration growth pattern." (5-81)

Q117. Does this mean that desired concentration growth patterns are more difficult in rural, less populated, areas, than in high-rise areas?

"With the TSM Alternative, people-carrying capacity would be increased" (5-81)

"Since the BRT Alternative would substantially enhance mobility by increasing people-carrying capacity, they would help focus growth along the alignment of the In-Town BRT system in the Urban Core." (5-81)

Q118. What large landowners would most benefit from this approach?

Q119. Will transit centers increase the value of nearby property?

Q120. What does "people-carrying capacity" mean?

Q121. Is it socially desirable to increase the "people-carrying capacity"?

Q122. What are some reasons that communities might want lower "people-carrying capacity"?

Q123. Does "help focus growth along the alignment" mean that the City will oppose growth elsewhere? If not, how will this contain sprawl?

"5.13.1 Cumulative Impacts ... Farmland. Agricultural activities occur in Ewa and central Oahu. State and City policies encourage urban development, particularly in Ewa. Consistent with State and City policies, urban development would convert some open spaces to urban land uses." (5-81)

"The No-Build Alternative would do little to achieve the vision for the future of Oahu." (7-1)

"Restoration of a balance between automobile, transit, pedestrian and bicycle modes is a prime objective within the primary transportation corridor." (7-6)

Q124. When did the balance exist?

Q125. What made it go out of balance?

Q126. How likely is it that the balance can come back?

Q127. What is the proper balance between pedestrian and bicycle modes?

Q128. Should balance be a prime objective only within the corridor?

Q129. What are the levels of balance and who determines them?

Q130. How is balance measured?

"The No-Build Alternative would rely on conventional diesel buses" (7-9) "The initial cost ... of the No-Build Alternative would be $135.5 million ... The total cost ... would be $316.9 million ... which includes the normal replacement of bus vehicles" (7-13) Diesel or electric?

"As part of the BRT Alternative ... improved visual conditions ... lighting. The quality of urban living would increase." (7-14)

Q131. What is the relationship between PCTP, ORTP and the OMPO CAC?

Q132. Will the plan increase or decrease compliance with the ADA?

Q133. How will mauka-makai bicycle trips be affected?

Q134. Will alternative will allow greater shipment of bicycles?

Q135. How many bicycles could be transported each day?

Q136. Will the amount of green space in the PUC go up or down?

Q137. By how much?

Q138. The boundaries used in various reports do not line up. Why?

Q139. Are the following locations inside the boundary: (a) Waimanalo Gulch; (b) Ford Island; (c) Hickam Air Force Base? The Parsons Brinkerhoff Report (3/99) includes Iroquis Point, Diamond Head, and the Kahala Mall. The DEIS does not. Was the boundary changed after the EISPN was published?

Q140. Is the current scope of the project different than that proposed in the EISPN?

Q141. Why is part of Mamala Bay included in the Corridor?

Q142. Is both the University of Hawaii and Chaminade University in the PCTP?

"Moving into 21st Century Oahu will require implementing an integrated vision of both transportation and land use." Parsons Brinkerhoff -3/99, page 7

"Since sprawl development does not support itself through the additional revenue it creates, it must be subsidized by residents living in older, established neighborhoods." Parsons Brinkerhoff -3/99, page 8

Q143. How do we know that "sprawl development does not support itself"

Q144. Do residents in "older, established neighborhoods" subsidize other neighborhoods and proposed developments?

Q145. Do all residents initially subsidize new projects or do developers pay for needed infrastructure to connect their proposed developments to the existing water, sewer, gas, electric and telephone grids?

"Second, prime agriculture and rural acreage is being converted into tract developments which, in some cases, are devoid of community character and sense of place." Parsons Brinkerhoff -3/99, page 8.

Q146. Which developments lack community character on Oahu?

Q147. If there are no such communities, why make the statement?

Q148. How will building multiple "super-blocks" make better community character and a sense of place?

"Hugh investments in freeways, highways and surface streets, and relatively minimal investments in public transit and facilities to accommodate pedestrians and bicycles, have literally driven people into the suburbs. Parsons Brinkerhoff -3/99,page 9.

Q149. Since the development of the H-1, how has population been driven-out of Honolulu?

Q150. Did the population-level fall within the PCTP?

"Freeway ramps have attracted development of shopping malls and 'big box' stores" Parsons Brinkerhoff -3/99,page 10

Q151. Do "big box stores" exist because of freeway ramps or governmental policy that encourages large foreign-owned stores at the expense of local mom-and-pop stores?

"A balanced transportation system will help to stop sprawl" Parsons Brinkerhoff -3/99, page 11

"The vision for Honolulu neighborhoods includes a pleasant mix of small businesses, churches, schools, and locally owned and operated businesses within walking or biking distance of residences or connected by neighborhood circulators." Parsons Brinkerhoff -3/99, page 15

Q152. How does Saint Louis Heights and Pacific Palisades coincide or differ from the statement: "The vision for Honolulu neighborhoods includes a pleasant mix of small businesses, churches, schools, and locally owned and operated businesses within walking or biking distance of residences or connected by neighborhood circulators."?

"A ramp can be a single lane and reversible to permit operation townbound in the AM peak period and outbound in the PM peak." Parsons Brinkerhoff -3/99, page 30

Q153. What would a map of a reversible ramp look like?

"For example, relaxed parking requirements can be used as a redevelopment tool." Parsons Brinkerhoff -3/99, page 40

Lets define the following ratios:
Pedestrian-Ratio = cost of "facilities to accommodate pedestrians" divided by total new infrastructure cost
Bicycle-Ratio = cost of "facilities to accommodate bicycles" divided by total new infrastructure cost
What is the Pedestrian-Ratio and the Bicycle-Ratio for each Alternative?

Q154. How will the adoption of one of these Alternatives have any effect on protection of prime agricultural lands.

"One of the keys to this islandwide vision was improved public transit between Kapolei and the University of Hawaii. This is the focus of the ongoing Primary Corridor Transportation Project." (Oahu Trans 2K Progress Report. Fall 1999)

Parsons Brinkerhoff published a 44 page booklet in March 1999. The cover states: "Islandwide Mobility Concept Plan", "Primary Corridor Transportation Plan" and "Oahu Trans 2K." ["Parsons Brinkerhoff -3/99"]

Q155. What does "sustainable" mean?: "The Mobility Concept Plan ... It is not only sustainable over the long run, but absolutely necessary to shape an economically robust future for Oahu." (Parsons Brinkerhoff -3/99, page iv).

"Promoting economic development is also critical to maintaining the health of our island communities." (Parsons Brinkerhoff -3/99, page vi)

"Automobile-driven sprawl largely determined how Oahu developed over the last several decades" (Parsons Brinkerhoff -3/99, page 1)

"But there is a growing recognition that over-dependence on the automobile has led to widespread urban and suburban sprawl, loss of open space and ever increasing traffic congestion." (Parsons Brinkerhoff -3/99, page 2)

"Any successful transportation plan will make it easier and more pleasant to drive, not more difficult" (Parsons Brinkerhoff -3/99, page 2)

"The economic patterns generated by automobile dependence contributes to the decline of neighborhood retail and office districts and the small businesses that formerly thrived in them." (Parsons Brinkerhoff -3/99, page 2)

"Special features of the integrated transportation system include ... An expanded network of bicycle lanes and walking paths" (Parsons Brinkerhoff -3/99, page 3)

Q156. How will the BRT Alternative enable the C&CH to "Keep the country country"?

Q157. How will the BRT Alternative enable the C&CH to "Make Honolulu and Kapolei more attractive, livable cities"?

Q158. How will the BRT Alternative enable the C&CH to "Reclaim the waterfront"?

Q159. How will the BRT Alternative enable the C&CH to create "A healthy and multi-faceted visitor industry"?

Q160. What is the relationship between the "21st Century Oahu Vision Program," the "Oahu Trans 2K," the "Islandwide Mobility Concept," and the PCTP?

Q161. What is meant by "mobility options"?

The goal is to encourage properly planned new development in the urban core, increasing opportunities for people to live, shop, work, and socialize all within a particular neighborhood or geographic area and minimizing the need to constantly travel long distances.

When older neighborhoods are "revitalized", new families come in. The price of property rises. Some of the older residents are then financially squeezed. Property taxes rise. People either leave or cope. Is this what is meant by the following statement: "Achieving this vision means encouraging redevelopment of older urban neighborhoods by

improving the quality of life of these areas to attract new residents." The new residents will enjoy a high quality of life while the existing residents on fixed income will move-out.

"A transit-based travel option, with frequent express service to and from Downtown and connections to strategically located transit centers along the way, is a necessary transportation element to link Oahu's first and second cities, and will encourage their coordinated growth." Isn't it more likely that their coordinated growth will be related to the fact that the two cities have the same county council and mayor?

The PUC will remain the center for employment, cultural activities, educational opportunities, regional shopping, and recreation. It will continue to serve as a major hub for commuters, students and other individuals from all parts of the island.

Q162. "In general, the areas that would be converted to transitways are existing general purpose lanes, shoulders and medians. The BRT Alternative incorporates a very high level of transit service to draw people out of single-occupant automobiles." Why not include a much higher use of buses, as suggested by some of the commenters on the EISPN?

"A computer model was used to see how regional traffic mobility and transit ridership would be affected under each alternative. The transportation analyses indicated that major regional roadways would still have traffic bottlenecks in 2025 under any of the alternatives. However, the BRT Alternative would offer an alternative, fast, efficient travel mode through the congestion for those choosing to travel by transit, because transit vehicles would use the uncongested exclusive and semi-exclusive transitway lanes."

The BRT Alternative would not necessarily improve automobile movements through congested intersections. However, it would dramatically increase the person-throughput capacity of streets within the urban core by an average of 10 percent (measured in terms of persons per hour).

Have any transit systems in the US experienced what is suggested by the following statement?: "An efficient transit system should cause the demand for parking to decline within urban Honolulu. New neighborhood off-street parking facilities could be developed if community-based planning determined it was needed."

Q163. "What are bicycle mitigation measures?: Environmental mitigation considerations, including mitigation for loss of on-street parking, replacement of loading zones, and coordination of details of the bicycle mitigation measures with cyclists.

PCTP BRT Alternative, Draft Conceptual Design Drawings, Technical Appendix B ("Appendix B")

Q164. Kalauokalani/Kapiolani (Convention Center) Substation Appendix B-TRM-7
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q165. Kapiolani/Hoawa Substation. Appendix B-TRM-7
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?

d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q166. Kuilei/University Substation. Appendix B-TRM-8
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q167. University (between Dole/Metcalf) Substation. Appendix B-TRM-9
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q168. Aloha Tower Substation. Appendix B-TRM-10
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q169. Kamakee/Auahi Substation. Appendix B-TRM-11
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q170. Ala Moana (near Hobron) Substation. Appendix B-TRM-13
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q171. Kalia Road/Maluhia Substation. Appendix B-TRM-13
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?

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f. What are the expected EMF readings at the transit stop?

Q172. Kuhio/Seaside Substation. Appendix B-TRM-14
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q173. Kalakaua/Duke's Substation. Appendix B-TRM-14
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q174. Kalakaua/Uluniu (Waikiki Beach) Substation. Appendix B-TRM-14
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q175. Kealohilani/Kuhio Substation. Appendix B-TRM-14
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q176. Kuhio/Kapahulu (Kapiolani Park) Substation. Appendix B-TRM-14
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q177. McNeill/Dillingham Substation. Appendix B-TRM-2
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q178. Dillingham (Honolulu Community College across from Alakawa) Substation. Appendix B-TRM-3
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q179. Iwilei Rd extension/Kaaahi Substation. Appendix B-TRM-3
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q180. Kekaulike/Hotel Substation. Appendix B-TRM-4
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q181. Bishop/Hotel (Union Mall) Substation. Appendix B-TRM-4
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q182. King/Mililani (Iolani Palace) Substation. Appendix B-TRM-4
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q183. King/Cooke Substation. Appendix B-TRM-5
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q184. Pensacola/Kapiolani Substation. Appendix B-TRM-6
a. What is the anticipated size of the substation (measurements and capacity)?

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b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q185. Kapiolani/Keeaumoku Substation. Appendix B-TRM-6
a. What is the anticipated size of the substation (measurements and capacity)?
b. Will the substation be enclosed?
c. Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout?
d. Will the lines to and from the substation be underground or overhead?
e. What HECO substation will this substation be attached to?
f. What are the expected EMF readings at the transit stop?

Q186. What currently exists at the Iwilei Transit Center / Park-and-Ride Site?

Q187. Has the Neighborhood Board taken a position on use of the site?

Q188. Is the proposed site listed in the first volume of the PCTP DEIS?

Q189. What currently exists at the Middle Street Transit Center / Park-and-Ride Site?

Q190. Has the Neighborhood Board taken a position on use of the site?

Q191. Is the proposed site listed in the first volume of the PCTP DEIS?

Q192. Why has the public presentations heavily favored the BRT choice over the no-build and other transportation system management options?

Q193. How can a fast-track approach gel with community consensus?

Q194. How does the Major Investment Study analyze economic analysis on alternative modes of transportation and its impact on private transportation systems.

Q195. Has DTS maximized the efficiency of its current bus system?

Q196. What will be the business impact due to the loss of loading zones?

Q197. Hawai'i is the home to a large number of endangered and threatened species. While any given project can minimize the loss of species, the gradual, incremental, expansion of population into mauka regions CAN lead to a loss of habitat. Population growth, increased tourism, conversion of open areas to urban growth, and expansion of transportation (allowing easier access to areas) CAN lead to loss of critical habitat. What precautions have been taken such that the heavily intertwined land use/transportation planning approach will not lead to critical losses in habitat? Please be specific. What studies were reviewed? What people were interviewed? How was the analysis completed? What new analysis was done? What are the credentials of the people who did the analysis for the EIS?

Q198. Please enclose a full bibliography.

Q199. Please enclose a full list of terminology.

Q200. What are the terms, conditions, and requirements of federal funding for this project?

Q201. At the first PCTP/Oahu Trans 2K "town meeting" we attended, you asked, so what would you like at your train station? Did you ever find out the answer to that question?

Henry Curtis

Henry Curtis
Executive Director
Life of the Land

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TPD11/00-05357R

November 13, 2002

Mr. Henry Curtis, Executive Director
Life of the Land
76 North King Street, Suite 203
Honolulu, Hawaii 96817

Dear Mr. Curtis:

Subject: Primary Corridor Transportation Project

This is in response to your November 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *The BRT Alternative states that the number of people will rise by 200,000 over 20 years; the number of trips to/within downtown will rise by 300,000; one mile of loading zones will be removed from downtown; hundreds of parking places will be removed from downtown; and lanes will be dedicated to non-automobiles. The result: "The BRT Alternative would not necessarily improve automobile movements through congested intersections."*

   Response: Comment noted.

2. *How come all possible negative impacts are so sugar-coated? It does not take a rocket scientist to note that loss of lanes, loss of left-hand turn lanes, loss of parking and loading zones, and increased use of cars most certainly will have an impact on the movement of cars!*

   Response: It is unclear what you mean by "sugar-coated": The MIS/DEIS and FEIS factually report the results of the traffic analyses.

3. *Reading the Draft EIS, one gets the initial feeling that transportation impacts are minimal, if they exist at all! Anything controversial was either relegated to the Appendix B which was not made publicly available, except by request?*

   Response: The MIS/DEIS discloses the transportation impacts in Chapter 4. Appendix B, which was accessible to the public, contains Conceptual Engineering Drawings for the BRT Alternative (now Refined LPA).

4. *Why exclude the location of site-specific structures in the main text (volume 1). Because some Neighborhood Boards have expressed concerns. Discussion omitted. However, a more careful reading of this DEIS leaves us with the impression that the writers are trying to cover something up! An EIS is by definition, a planning document, that reasonable and fairly evaluates alternatives. This EIS is designed to promote one alternative, and to avoid a realistic appraisal of impacts and mitigations.*

Response: If you are referring to the location of the traction power substations (TPSS) that would be required if an embedded plate technology were chosen, TPSS locations and related impacts were disclosed in the Supplemental Draft Environmental Impact Statement (SDEIS) and are included in the FEIS.

The MIS/DEIS fully discloses potential impacts and fairly evaluates the No-Build, TSM and BRT Alternatives in a balanced manner that is sufficient for the purpose of the MIS/DEIS. The FEIS discloses the general locations proposed, physical characteristics and related impacts of the traction power substations should all-electric vehicle technology be used for the In-Town BRT. Since installation of the TPSS would not start until 2010 and would not be completed until 2017, it is likely that some sites currently being considered will not be available then and alternative sites will be located. At that time more detailed, site specific environmental analyses will be performed.

5. *With regard to the statement on page S-3 ("The City's land use policy for the primary transportation project requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy."), how will planning them together but analyzing their impacts separately lead to sound planning?*

   Response: The BRT Alternative was evaluated as being consistent with the Public Review Draft of the Primary Urban Center Development Plan (June 1999), as it relates to "high capacity transit corridors" and "urban villages" concepts. These concepts are supportive of, and consistent with, the type of transportation improvements provided by the In-Town BRT, which would be designed to support current land uses and facilitate potential transit-oriented development, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are locations where development is likely to occur with or without the PCTP.

6. *"The Draft PUC Development Plan update calls for the PUC to capture 36 to 43 percent of Oahu's growth over the next 25 years." (S-4) With regard to the statement on page S-4 as stated above, isn't the Draft PUC Development Plan advisory only, with lots of shoulds instead of musts?*

   Response: The development plans, which are required by the City Charter, together with the General Plan, guide public improvement projects and zoning. As part of the annual city budget process, all capital improvement projects are reviewed to determine if they are consistant with the respective development plan. Development plans are also intended to guide private sector investment decisions.

7. *Doesn't the Draft PUC Development Plan leave lots of room for anything to be built?*

   Response: See response to comment #6.

8. *"The TSM Alternative ... Where possible, existing bike lanes would be replaced by joint use bicycle/transit lanes." (S-12). With regard to the statement on page S-12 as stated above, will replacing existing bike lanes with multi-use bike lanes be safer or more dangerous for bicycle riders?*

   Response: Please be aware that under the TSM Alternative, the semi-exclusive bus lanes would operate only during peak periods. Using curbside lanes on certain roadways, the semi-exclusive lanes would be reserved for buses, except for vehicles turning into and out of driveways and turning right at intersections. No existing bike lanes would be effected. The statement noted on

Page S-12 gave incorrect information that bike lanes would be displaced under the TSM Alternative. This has been corrected in the FEIS. Since the curbside lanes would not physically change, the use of these lanes for cycling would remain the same as they are today with the level of safety also remaining the same.

9. *With regard to the statement on page S-12 as stated above, what is the safety of bicycles in the case of multi-use bike lanes based on?*

   Response: As stated in the response above, the TSM Alternative would not affect any existing bike lanes. Bicycle safety is largely based on the potential for conflicts, which are situations where the cyclist, motor vehicle, pedestrian or other cyclist has to initiate an action (brake or swerve) to avoid a collision. An example of a conflict is a vehicle overtaking a cyclist to make a right turn at an intersection and the cyclist has to brake quickly to avoid colliding with the vehicle. Where the avoidance action is unsuccessful, a collision occurs. A study sponsored by the Federal Highway Administration (FHWA) Bicycle Lanes Versus Wide Curb Lanes: Operational and Safety Findings and Countermeasure Recommendations, October 1999 found higher bicycle-motor vehicle conflict rates on roads with bike lanes than roads with wide curbside lanes (6.7 versus 5.1 per 100 cyclists). However, the study noted this difference was attributable to site specific conditions of the areas studied. In other words, the bike lanes did not cause a higher number of conflicts but rather external factors, such as the presence of parked vehicles, illegal parking or stopping and the presence of driveways and intersecting streets contributed to the higher number of bicycle-motor vehicle conflicts. These and other factors, such as motor vehicle volumes and speed, affect the level of bicycle safety because they increase the potential for bicycle-motor vehicle conflicts regardless of whether the roadway has bike lanes. Nevertheless, with all things being equal, a roadway with bike lanes would likely present fewer opportunities for bicycle-motor vehicle conflicts than a roadway with normal 11- to 12-foot-wide curbside lanes with no shoulders. Similarly, a roadway with wide (e.g., 14 feet or wider) curbside lanes and/or with shoulders would also present fewer opportunities for bicycle-motor vehicle conflicts than a roadway with normal width curbside lanes with no shoulders with all other things being equal.

10. *With regard to the statement on page S-12 as stated above, for similar routes and times, which lane is more popular in terms of actual bicycle use, single purpose or multiple purpose lanes?*

    Response: The FHWA study identified in response to comment #9 noted that bicyclist preference surveys have indicated that cyclists prefer using roadways with bike lanes rather than roadways without bike lanes, even if they have wide curbside lanes. The study concluded that bike lanes are more likely to increase cycling than using wide curbside lanes. However, cyclists would find wide curbside lanes preferable to normal 11- to 12-foot-wide curbside lanes with no shoulders. The Hawaii Bicycling League concurs with this conclusion.

11. *With regard to the statement on page S-12 as stated above, for similar routes and times, which lane is more dangerous in terms of actual bicycle use, single purpose or multiple purpose lanes?*

    Response: Please see responses to comments #9 and #10 regarding the factors that affect bicycling safety. Bicycle-motor vehicle collisions have the potential to cause the most severe injury or death to the cyclist. Another study by FHWA, which analyzed hospital data, found bicycle-motor vehicle accidents required 24.7 percent of the cyclists to be admitted to the hospital and 1.8 percent were fatal as opposed to 9.6 percent and 0.3 percent, respectively, for bicycle only accidents. As stated above, the factors that contribute to the number of bicycle-motor vehicle conflicts include the width of the curbside lane, the existence of shoulders or parked cars, the

presence of intersecting roadways and driveways, and adjacent land uses. The presence of bike lanes could reduce the likelihood of bicycle-motor vehicle conflicts, but in certain circumstances may not make a difference.

12. *With regard to the statement on page S-12 as stated above, what types of lanes cause the most bicycle accidents?*

    Response: See responses to comments #9, #10 and #11.

13. *With regard to the statement on page S-12 as stated above, what types of lanes cause the most deadly bike accidents?*

    Response: See responses to comments #9, #10 and #11.

14. *Are sound barriers along state roads within the purview of the county? "Other project structures, such as sound barriers along H-1 Freeway, would be sensitively designed within the context of their surroundings." (S-13)*

    Response: The sound barriers along the H-1 Freeway are no longer considered to be part of the proposed project. However, they will be located within the State right-of-way and would be constructed as a separate SDOT project.

15. *Doesn't this assume the same growth rate regardless of the type of bus/rapid transit system built? "Reduced auto usage under the BRT Alternative would save about 39,000 barrels of oil each year in comparison to the No-Build Alternative. The TSM Alternative would save about 8,600 barrels of oil per year compared to the No-Build." (S-13)*

    Response: The growth of population was consistent among all alternatives. The growth in VMT is developed through the traffic modeling and would vary depending on alternative.

16. *Does the statement "The City's land use policy for the primary transportation project requires that transportation and land use be planned" take into account the different carrying capacity of the city -- dependant upon the transportation system adopted?*

    Response: A transportation system is one among other major factors, such as land availability, water supply and other infrastructure, that determine the amount of development in any particular area.

17. *If the BRT Alternative allows faster development, isn't it possible that the total use of oil will rise, even if per capita use of oil falls?*

    Response: It is possible that energy usage could increase or decrease depending on the alternative selected. The savings in energy resulting from the Refined LPA could help offset any energy increase resulting from development. While it may help shape where growth occurs, it is not expected that the BRT would promote "faster" development or induce development to occur at an increased rate.

18. *Which poses more impacts on endangered and threatened wildlife: average per capita pollution or total pollution?*

    Response: Both measurements of pollution reflect the potential for impacts on wildlife.

19. *"Unanticipated Resources" means what?*

    Response: If the comment pertains to the term as used in Sections 5.0 (page 5-2) and 5.12.13 (page 5-80) of the MIS/DEIS, it refers to archaeological resources. Page 5-2 has been revised in the FEIS to clarify this term.

20. *What is an "archaeological contingency procedure?"*

    Response: An archeological contingency procedure refers to a procedure for the handling of archaeological resources should unanticipated resources be encountered during construction.

21. *As we are currently pulling ourselves out of a nine year recession, "Is our quality of life decreasing right now"?*

    Response: Chapter One of the MIS/DEIS, Purpose and Need, pointed out that increasing traffic congestion is adversely affecting the quality of life of many citizens. The PCTP project is aimed at addressing this problem as well as trying to improve the quality of the urban environment, which is also a factor in overall quality of life.

22. *"The purpose of the Primary Corridor Transportation Project is to examine candidate investments that would improve the efficiency of both the transportation system in the primary transportation corridor, and the connections between the corridor and the rest of the island." (1-1) What is meant by "candidate investments", donations by politicians?*

    Response: The term "candidate investments" refers to alternative improvement projects being considered for selection as the LPA.

23. *"The City's land use policy for the primary transportation corridor requires that transportation and land use be planned and developed together to implement a comprehensive urban growth strategy." (1-5) How does mauka-makai transit mesh with "A high capacity [east-west] transit spine through the PUC would enhance in-town mobility" "A high capacity transit spine through the PUC would enhance in-town mobility and provide transit connections between the many travel markets that existing within the urban core." (1-6)*

    Response: The In-Town BRT, which predominately travels east-west, is only one element of the transit plan for the Primary Urban Center. The plan also includes conversion of the bus system to a hub-and-spoke network. The hub-and-spoke network would consist of new local circulator routes, as well as continuation of many existing line haul and express routes. These circulator routes would service the "mauka-makai" ridership needs. The goal is to have an integrated network of transit services that are convenient and cost-effective for potential users.

24. *According to figures in this document, the expected growth rate would be: PUC=45%; Ewa=30%; Other =30%. If 3 out of 10 new residents will live outside of the PUC and Ewa, why do you say: "encouraging growth in only two areas"? Table 1.2-1 Projected Population Summary and paragraph Waikiki 2,300 * Other PUC 86,800 * Ewa 59,600 * Central Oahu 34,391 * Other 25,909 * Total 209,200.*

    Response: Although all Development Plan areas would experience some population growth, it is the intention of the City and County of Honolulu to direct much of the population growth to the Primary Urban Center and Ewa.

25. *The best-fit alternatives, the choices that we are reviewing, were made without public review, right? "The alternatives described in this chapter evolved over the course of developing the MIS/DEIS through an iterative process wherein a wide range of options was progressively analyzed in increasing detail until it was winnowed down to the 'best fit' alternatives." (2-1)*

    Response: Public input from Rounds 1 and 2 of the Oahu Trans 2K outreach program was used to winnow down the alternatives. In Rounds 3 and 4 of the Oahu Trans 2K meetings the No-Build, TSM, BRT and BRT/SISP alternatives were presented. At these meetings, public input confirmed the major concepts and provided additional input on the alternatives that were used to further refine them.

    Subsequent to the Round 4 Oahu Trans 2K meetings it was decided, based upon input from coordinating public agencies, to move the Sand Island Scenic Parkway element forward separately from the transit alternatives being considered in the MIS/DEIS.

26. *Doesn't NEPA require all reasonable alternatives? Where did you get the term "best-fit alternatives"? Who's best-fit? How is the number of buses determined in each scenario? Don't cities tend to very in their population/number-of-buses ratio? Wouldn't a lower ratio have a greater impact than a high ratio? Will the EIS be used to calculate the desired ratio? Will some planner, without public input, decide that number?*

    Response: The term "best fit alternatives" was used in the MIS/DEIS to describe all reasonable alternatives that were most consistent with the project's purposes and needs.

    The number of buses required in each alternative was established based on the number of riders forecast using the regional travel demand forecasting models developed by OMPO.

27. *What is the relationship between "reasonable candidate investments" and "best-fit alternatives"?*

    Response: See response to comment #26.

28. *What specific documents mention SISP? Please explain fully: "The concept of a direct connection between Keehi Interchange and Kakaako via Sand Island was developed to provide a more direct and scenic gateway entry to Waikiki and Kakaako for visitors and others from the Airport and points ewa. This is called the Sand Island Scenic Parkway, or SISP." (2-2)*

    Response: The Sand Island Scenic Parkway (SISP) is described in Chapter 2 of the MIS/DEIS. Subsequent to the Round 4 Oahu Trans 2K meetings, it was decided, based upon input from coordinating public agencies, to move the SISP element forward separately from the transit alternatives being considered in the MIS/DEIS.

29. *How would the city do this? "Highway Alternative to the Regional Transit System. ... New express lanes for vehicles with 3 or more occupants would be constructed within the median of the H-1 Freeway in each direction between Kapolei and Managers Drive." (2-42)*

    Response: These improvements were part of the 1995 Oahu Regional Transportation Plan (Table 5-2, TDM Element - HOV Facilities, 2020 Oahu Regional Transportation Plan - projects scheduled for period 2006-2020) and in the OMPO TOP 2025 Plan. SDOT will implement the express lanes, not the City.

30. *Hasn't the State DOT found that P.M. zip lanes will not work? What has changed?*

Response: The State DOT identified three issues that needed to be resolved for the P.M. zipper lane to be feasible. Issue #1: The Pearl City viaduct might be unable to support the additional weight of the movable barriers. Issue #2: There may be insufficient space to place the moveable barriers. Issue #3: The volume of traffic heading Diamond Head-bound in the P.M. peak period is greater than the capacity of the 3 lanes that would be available. Resolution for Issue #1 and Issue #2: The existing median concrete barrier would be removed and replaced with movable barriers. Movable barriers are lighter than the existing median barriers and would take up the same amount of space. Resolution for Issue #3: The Diamond Head-bound shoulder lane, which is currently in operation during the A.M. peak period, would be made available to traffic during the P.M. peak period as well.

31. *Are HOV's currently maintained?*

Response: Except for the P.M. peak period, when the Koko Head-bound HOV lane on H-1 between Waiawa Interchange and Radford Drive would not be available, all existing HOV lanes would be maintained with the Refined LPA.

32. *Don't one out of three cars in the HOV contain only one person?*

Response: Statistical data regarding occupancy violations in the HOV lanes have not been compiled by the State of Hawaii Traffic Section. However, it has been noted that the violation rate in the HOV lanes is high. Enforcement is a key component to obtaining occupancy compliance.

33. *Isn't the limited enforcement precisely why so many disobey the law?*

Response: Vehicle occupancy requirements are not rigorously enforced which has resulted in a high rate of violations. In many sections of the freeway system, the requirements cannot be enforced without compromising safety, since there is insufficient shoulder space available for traffic officers to pull vehicles over. The proposed P.M. zipper lane on Interstate H-1 includes adequate shoulder space for pulling over vehicles.

34. *If all lanes were HOV, wouldn't the traffic pattern be identical? No enforcement? (This lack of enforcement excludes tickets given to accident victims, or cars crossing the yellow line by the airport where the zip lane merges with the other lanes).*

Response: None of the improvement alternatives propose to restrict all of the lanes to HOV use.

35. *"EISPN Comments ... Why is an extension to Kahala not considered? (Outdoor Circle; Life of the Land): The analysis of future travel demand and existing infrastructure capacity indicates that the major shortfall in transportation capacity extends from the PUC to the Ewa area." (2-46)*

Response: Congestion is forecast to be most severe in the corridor Ewa of downtown through to Waikiki and UH Manoa. This is where a high level transit system could be most effective in attracting people out of their autos.

36. *By what specific method were the bounderies chosen?*

Response: The study area was broadly defined to encompass the H-1 Corridor from Kapolei to UH-Manoa and Waikiki. This area was selected because it has the highest levels of congestion today, and has the greatest likelihood to worsen in the future if left unabated.

37. *Why is Mamala Bay included but Kahala excluded?*

Response: If you are referring to the figures depicting the Primary Transportation Corridor Study Area (Figures 1.0-1 and others), the marked area should not be taken literally. The figure is intended as a guide to help readers understand roughly where the Primary Transportation Corridor is located.

38. *Why is Hickam AFB included but parts of Nuuanu excluded?*

Response: See response to comment #37.

39. *"EISPN Comments ... Enhanced Bus Alternative that increases both bus and auto efficiency (Life of the Land): The TSM and BRT Alternatives enhance bus and auto efficiency to varying degrees." Our question was: if Oahu has two cities and if both are to function, shouldn't express buses from throughout Oahu go to both cities?*

Response: There will be express bus service to Kapolei as well as from Kapolei in the A.M. peak period.

40. *For example, one circle island bus that goes to Ala Moana and another that goes to Kapolei?*

Response: See response to comment #39.

41. *If the idea is really to get people out of cars, then shouldn't one model consist of double the number of buses you are planning?*

Response: The number of buses in each alternative is a reflection of the number of buses required to efficiently serve the projected ridership with that alternative. The Refined LPA reflects a 36 percent increase in seats provided compared to the No-Build Alternative.

42. *Wouldn't such an "Enhanced Bus System, with regular express service 18 hours a day, provide people with the assurances that they can get places on time if they take a bus? If each Express Route had four buses per hour, one going to each of Kapolei, the Airport, Downtown/Waikiki, and the Universities (UH, Cheminade), wouldn't a lot more people take the Express Buses?*

Response: There are many factors that affect ridership on express routes. Therefore, substantially increasing service may not in and of itself result in increased ridership.

43. *Please give several specific examples of "transportation analysis zones"*

Response: The OMPO Travel Demand Forecasting model subdivides the island into 761 transportation analysis zones (TAZ)s. Criteria used in defining the TAZ's were:
1. Highway or street network connectivity
2. Natural or manmade barriers (e.g., streams, ridges, and freeways)
3. Census tract bounderies
4. Development plan areas
5. Land use

6. Future Development Plans
7. Special Generators (e.g., military bases, colleges/universities, shopping centers)
8. Walk access to transit lines
9. Zone density

Examples of TAZ's are: Zone 120 in Waikiki bounded by Kuhio Avenue, Kalulani Avenue, the Ala Wai Canal, and Nahua Street; and Zone 624 in Waianae bounded by the coastline, Lualualei Naval Road, Mohihi Street, and the Ulehawa Channel.

44. *Please give several specific examples of "landscape units".*

Response: Landscape units are defined as a recognizable physical area that have physical unity and characteristics that make it part of a single area, district or "piece." An example of a landscape unit would be the stretch along Kalia Road, from Ala Moana Blvd. to Seratoga Road – grassy and well-landscaped open spaces toward the mountain side of Kalia Road, while the hotels (Hilton Hawaiian Village and Hale Koa) on the ocean side form a harder built-up edge. Another example of a landscape unit would the stretch of King Street from Richards Street to the area Diamond Head of Kawaiahao Church and Honolulu Hale. This area contains historic monarchy-era buildings and landscaped open spaces, unique to downtown Honolulu. Another example would be University Avenue, between Kapiolani Boulevard and King Street.

45. *Pearl Harbor is a Superfund. It was placed on the National Priorities List because of contamination at a number of sites, including the Aiea Laundry. Please list each of the 24 state, federal and private databases that left Pearl Harbor out of their listing of Superfund sites.*

Response: Correct, it was mistakenly left out. Pearl Harbor was listed on the NPL (Superfund) on October 13, 1992 and is identified as a Superfund site in the FEIS.

46. *Are you molding a land/transportation growth system that will allow for the "orderly" expansion of the population by 250,000 new people in 20 years, and increasing the "efficient" movement of those people, and yet feel that there will be no positive or negative impact on cultural sites (increased use, overuse) for anything included as a potential TCP?*

Response: The proposed project is not expected to affect historic cultural sites (see Section 5.10 of the FEIS). DTS, other government agencies, private developers, community groups, and environmental and historic preservation organizations must all work together to ensure protection of Oahu's valuable cultural resources.

47. *Please elaborate on the reports you are relying on, the studies you have conducted, and the depth of your analysis.*

Response: The project has consulted with the State Historic Preservation Division and the Office of Hawaiian Affairs on historic, archaeological and cultural issues. In addition, the project has organized a panel of cultural experts to determine whether the project would cause cultural impacts.

48. *Are you saying that adopting the proposed land use/transportation policies stated in this document, will only keep us even with the current levels of congestion?*

Response: The goal of the Refined LPA is to provide an attractive, affordable, dependable transportation option to the private automobile. The Refined LPA increases the people carrying

capacity throughout the primary corridor and preserves and improves the quality of life of Oahu's residents by improving transportation linkages within the primary corridor and between Kapolei and the urban core. The regional transportation plan for Oahu (TOP 2025), which includes the Refined LPA as well as highway and other improvements, was developed to meet future travel needs between now and 2025. Since the TOP 2025 Plan is constrained by funding limitations, and environmental and policy considerations, the levels of congestion in the future will be worse than today, yet substantially better than if nothing was done.

49. *What policies would get us ahead of the curve?*

Response: Avoidance of additional congestion in the future would require a major shift of people out of autos, and/or substantial increases in taxes and relaxation of environmental constraints.

50. *Please include those policies that would do so, even if they failed to make your "best-fit" alternatives list.*

Response: See response to comment #49.

51. *How would the different alternatives change the "paucity of bikeway facilities" that currently exists?*

Response: The Refined LPA will not displace any existing bikeway facility, such as bike lanes, paths or routes. The bike lanes on University Avenue would be moved next to the curb due to the removal of on-street parking on this street. Where the In-Town BRT lane is curbside, cyclists would be allowed use of these lanes. Where the In-Town BRT lane is center-running, the project would try to establish 14-foot-wide curb lanes where bike lanes are not possible. In terms of future bikeway facilities, as identified in the Honolulu Bicycle Master Plan, the Refined LPA would not preclude any of the suggested projects. The Hawaii Bicycling League agreed that the Refined LPA would improve bicycle transportation within Honolulu.

52. *How should reluctant bikers, such as those who have had vehicular-bicycle interactions (cars smashing into bikes), deal with multi-use lanes replacing dedicated lanes?*

Response: The Refined LPA will not replace any existing or proposed dedicated bike lanes with multi-use lanes.

53. *What is meant by the term "sense of permanence"?*

Response: A "sense of permanence" refers to the ease with which a public investment, in this case the transit alignment, could be moved.

54. *How much is the city willing to invest in dedicated bike lanes?*

Response: The proposed project would provide the opportunity to provide new bike lanes, such as along South King Street.

55. *Are bikers at risk of achieving a sense of impermanence?*

Response: This terminology refers to how the In-Town BRT would be permanently fixed along the selected alignment, which would provide a sense of permanance so that developers can confidently plan around the system. It has nothing to do with bicycle transportation.

56. *How do you define "sprawl"?*

Response: Urban "sprawl" is defined as dispersed development outside of compact village centers along highways and in the rural countryside.

57. *What are three examples of existing sprawl on Oahu?*

Response: Urban sprawl is a subjective term, but is typically defined as low-density residential development in greenfield areas with very few employment opportunities, other than commercial retail. Mililani, Waipio, and Makakilo are examples of sprawl.

58. *If sprawl does not exist on Oahu, how will any plan stop sprawl?*

Response: Sprawl does exist and has the potential to spread. The State and the City and County of Honolulu have instituted land use policies that encourage growth in the Primary Urban Center and Kapolei, in part to minimize suburban sprawl and the associated costs of extending public infrastructure and services into presently undeveloped areas. An improved transit system could help to focus growth in a desired development pattern.

59. *If sprawl does exist on Oahu, how specifically will any plan stop more sprawl from occurring?*

Response: Land use policies and infrastructure development can be used to direct growth.

60. *Please state how increasing the number of residents in Central Oahu by 35,000 and the number of residents elsewhere by 25,000 will contain sprawl?*

Response: The number provided in the comment for "residents elsewhere" is not correct. It should be about 174,000.

61. *If the first and second cities both grow rapidly, while growth elsewhere continues at its present rate, how is sprawl being contained?*

Response: Comment does not appear to be relevant to the proposed project. The question might be better directed to the Department of Planning and Permitting.

62. *Please list all successful efforts to contain sprawl on Oahu in the last 10 years.*

Response: See response to comment #61.

63. *What is meant by "growth-shaping opportunities"?*

Response: Growth-shaping opportunities refers to the project's ability to influence development patterns in targeted areas surrounding the project.

64. *Are there negative impacts sometimes associated with "growth-shaping"?*

Response: Depending on one's perspective, any development could be viewed has having "negative impacts".

65. *What are specific "transit supportive local policies"?*

Response: Examples of potential transit-supportive local policies include the development of Kapolei as the "second city" and the redevelopment in Kakaako as medium to high density mixed uses.

66. *What would be the geographic range of "transit supportive local policies" dealing with zoning issues?*

Response: Changes to the Land Use Ordinance such as zoning, that could be implemented to complement the proposed project have yet to be determined.

67. *What would be the geographic range of "transit supportive local policies" dealing with parking issues?*

Response: Transit supportive parking policies include the City's Land Use Ordinance (LUO) and the PUC DP Update. The LUO covers the island of Oahu, while the PUC DP Update addresses the Primary Urban Center.

68. *What would be the geographic range of "transit supportive local policies" dealing with mixed-use issues?*

Response: Changes to the Land Use Ordinance, such as zoning, that could be implemented to complement the proposed project have yet to be determined.

69. *What would be the geographic range of "transit supportive local policies" dealing with permissive land use issues?*

Response: See response to comment #68.

70. *What would be the geographic range of "transit supportive local policies" dealing with variances?*

Response: See response to comment #68.

71. *What does "ripe" for development" mean?*

Response: The term refers to an area that has certain characteristics, such as zoning, infrastructure, vacant or underutilized parcels, and favorable market factors that allow for ease of development.

72. *The following statement uses the term likely: "Among the findings and recommendations of the land use panel was the conclusions that without a major investment in a permanent fixed transit system, the desired growth pattern in the PUC would very likely not happen". Under what conditions could the desired growth pattern occur without an investment in a transit system?*

Response: While the desired growth pattern could occur without the project, it is more likely to occur with the project.

73. *What is meant by a "permanent fixed transit system"?*

Response: A permanent fixed transit system is one that will not be moved. This will enable developers to proceed with their plans for transit-oriented development without worrying that the City would later shift the alignment.

74. *What "appropriate implementation tools" are needed to discourage development?*

Response: Typical implementation tools include zoning, urban growth boundaries, parking restrictions and infrastructure development.

75. *What "appropriate implementation tools" are needed to prohibit development?*

Response: Typical implementation tools include zoning, urban growth boundaries, parking restrictions and infrastructure development.

76. *What specific development would be discouraged or prohibited?*

Response: This is too broad a question. It depends on the specific locations.

77. *Does "discouraged development" allow for variances?*

Response: DTS does not control the granting of variances and therefore cannot predict how many variances will be issued.

78. *Does "prohibited development" allow for variances?*

Response: DTS does not control the granting of variances and therefore cannot predict how many variances will be issued.

79. *How has the City government dealt with this issue in the past?*

Response: Variances are handled on a case-by-case basis by the Department of Planning and Permitting and the City Council.

80. *What is likely to change?*

Response: There are no known plans to change the process of obtaining a variance.

81. *Will new implementation tools protect prime agricultural lands?*

Response: Yes. Policies such as zoning, urban growth boundaries, parking restrictions, and infrastructure implementation policies can help protect both agricultural and rural areas.

82. *Will new implementation tools protect rural lands?*

Response: See response to comment #81.

83. *Will new implementation tools protect the community character of established communities?*

Response: The character of existing neighborhoods can be protected by implementation tools described above.

84. *What are the very specific in outlining the various ways the panel felt development could be discouraged?*

Response: The land use panel was not formed to recommend policies to discourage or prohibit development. The panel was formed to identify factors that have led to development elsewhere.

85. *What are the very specific in outlining the various ways the panel felt development could be prohibited?*

Response: See response to comment #84.

86. *What are the very specific in outlining the various ways the county should change existing ordinances so that undesired development could be discouraged?*

Response: The issue of discouraging or prohibiting undesirable land use development or patterns is discussed in each of the development and sustainable community plans.

87. *What are the very specific in outlining the various ways the county should change existing ordinances so that undesired development could be prohibited?*

Response: The issue of discouraging or prohibiting undesireble land use development or patterns is discussed in each of the development and sustainable community plans.

88. *What specifically did the panel mean by "'This conclusion was conditioned upon a comprehensive transit/land use implementing strategy developed and managed by a strong land development implementation body"?*

Response: The panel was referring to the need for an existing or new city department or agency that would take the lead in implementing transit-friendly development policies.

89. *"Transportation and circulation are integral functions within a livable city. They should, therefore, be tightly integrated with land use management controls and policies." (5-8) What does "tightly integrated with land use management controls and policies" mean?*

Response: This means that development of transportation infrastructure should be closely coordinated with land use plans and policies and vice versa.

90. *What would happen if transportation and circulation were only strongly integrated?*

Response: If transportation and circulation were strongly integrated, then a liveble city is highly possible.

91. *How does one measure degrees of integration?*

Response: Integration is a subjective term and is not necessarily measurable.

92. *Does "tightly integrated" mean that land use and transportation are dependent upon each other?*

    Response: The concept is that certain types and intensities of uses could benefit more than others from being near a transit station and vice versa, therefore transportation and land use policies and controls should reflect this.

93. *If not, how tight could they be with each other?*

    Response: See response to comment #92.

94. *If so, doesn't dependent utility require a joint EIS?*

    Response: See response to comment #92.

95. *What exactly is a "livable city"?*

    Response: Livable community is a subjective term, but typically means safe, clean and attractive neighborhoods that are pedestrian friendly and well connected to transit and employment opportunities.

96. *One that you can survive in?*

    Response: See response to comment #95.

97. *Or one that you can have a life in?*

    Response: See response to comment #95.

98. *This statement sounds like "we must build to be in compliance." How can you complete a fair, reasonable, balanced presentation, if the No-Build is disqualified before comments arrive?*

    Response: It is a federal requirement that all alternatives be treated in a balanced manner and the MIS/DEIS has been prepared to ensure that this "balanced treatment" requirement is met. A complete description and comparison of the No-Build Alternative, Transportation System Management (TSM) Alternative, and Bus Rapid Transit (BRT) Alternatives were discussed in the MIS/DEIS.

    Even at this point in the process, there is no foregone conclusion that the BRT Alternative (Refined LPA) will be implemented. Until there is a completed Record of Decision (ROD) and Full Funding Grant Agreement (FFGA) with the FTA, the preferred alternative is not a certainty. After the ROD is issued, construction funding needs to be procured to actually implement the project.

99. *What causes "continued pressure to urbanize outlying agricultural lands"?*

    Response: Pressure to urbanize agricultural lands comes from a lack of affordable urban lands on Oahu, growing population, and individual preferences for open space.

100. *How do developments in the PUC have any effect on developments in agricultural areas?*

    Response: If growth can be accommodated in urban areas such as the PUC, it would reduce development pressure on open lands such as agricultural areas.

101. *Are the development companies the same?*

    Response: Development companies for various projects can differ or be the same from project to project.

102. *Can any on-shore ecosystem be impacted from the BRT Alternative?*

    Response: No adverse impacts are expected because the BRT proposes to use existing or proposed roads, and because the ecosystem is already heavily disturbed.

103. *Will increased traffic, population, lights, urbanization have any possible impact on any native species?*

    Response: The State of Hawaii lists the Oahu population of the white tern as endangered. White terns are also federally protected by the Migratory Bird Treaty Act. White terns are well-adapted to urban environments, and no interaction with adults of this species is anticipated. The primary concern regarding white terns is to avoid disturbing their eggs, which are laid on bare tree branches. A survey of the project area will be conducted for white terns and their nests prior to final design. Sensitive trees and areas will also be monitored immediately prior to and/or during construction activities that involve tree relocation, removal, and/or trimming. All monitoring will be coordinated with the USFWS. DTS will also coordinate tree trimming with the Department of Parks and Recreation, which has standard procedures to avoid impacts to white terns and their eggs. These mitigation measures are included in Section 5.7 of the Final EIS.

    No adverse project impacts on other State or federally listed, proposed, or candidate threatened or endangered species are expected because the project area is already heavily disturbed.

104. *"Increasing transit patronage (with the BRT Alternative) would reduce the non-point source pollution created by automobiles." (5-59) How?*

    Response: Because this project and some other transportation projects are intended to enhance transit use and thereby reduce reliance on private vehicles, the cumulative effect of these planned projects would be to reduce pollution caused by automobiles over time.

105. *While the percentage of people who take buses may rise, won't there be an actual rise in the number of actual people who drive cars?*

    Response: Yes, due to population growth.

106. *How will that decrease water pollution?*

    Response: Fewer vehicles on the road will mean less oil and grease on the roads that become part of roadway runoff.

107. *Isn't a major source of non-point-source pollution the results of stop/go?*

    Response: Yes.

108. *Weren't "break pad wear and tear" what allowed federal monies to be used to study pollution in the Ala Wai Canal?*

Response: Break pad wear and tear is suspected of generating metal wastes that can contaminate water bodies. Metals are known contaminants in the Ala Wai, which is an impaired water body. However, there is no direct causality between "break pad wear and tear" and federal funding for studies of the Ala Wai Canal, as the Ala Wai Canal contains many other contaminants.

109. *How will increased bus use decrease vehicular npsp?*

Response: Transit ridership is expected to increase and reduce VMT under the Refined LPA. Reductions in VMT are strongly correlated with reductions in vehicular NPSP, as a result of lower vehicular emission.

110. *"Overall, the Island VMT under the TSM Alternative is projected to be slightly lower than the VMT under the No-Build Alternative because many travelers would shift from passenger vehicles to buses due to improved transit service." (5-62) What are the supporting and opposing documents/studies that would indicate people make decisions based on transit quality?*

Response: The OMPO travel demand models used in the Primary Corridor Transportation Project were developed using household surveys of thousands of Oahu residents that document their actual travel patterns and characteristics. The mode choice models use the observed relationships between relative travel time, frequency of service, and need for transferring (i.e., quality of transit service) compared to travel time by auto, and socioeconomic characteristics of the traveler (e.g., auto ownership) to forecast future ridership on transit. These models are consistent with forecasting procedures required by FTA and used throughout the U.S.

111. *Will the number of vehicles rise under this scenario?*

Response: If you are referring to an increase in the number of private automobiles, in the TSM, No-Build and BRT Alternatives, all these would have a greater number of vehicles in 2025 compared to today due to projected growth in population. The Refined LPA (BRT Alternative) would divert the most drivers out of autos and therefore result in the least auto growth.

112. *"This estimate assumes that hybrid in-town BRT vehicles would be used." (5-63) Would these hybrids be LEVs, SLEVs (equivalent to the Prius), or ZEV?*

Response: Hybrid vehicles are defined as having two sources of motive energy on board, and having the ability to partially or fully drive the vehicle's wheels. Bus manufacturers have developed vehicles that fit this definition, but the terms LEV, SLEV, and ZEV have not been applied by bus manufacturers to the technology.

113. *"Furthermore, an all-electric system would require approximately 11,300 kilowatts per day, which can be provided within the reserve capacity of existing power plants according to Hawaiian Electric Company." (5-63) What options exist for the use of fuel cells?*

Response: The FEIS describes two technologies that are currently under consideration: the Embedded Plate Technology (EPT) and a Hybrid-Electric Propulsion system. The FEIS has been prepared to permit either option to be selected later in the project development process by reflecting the "worst case" impacts of the two technologies. The FEIS does not preclude an alternative technology such as fuel cells to be considered in the future. Although the hybrid-electric technology has been chosen for the initial fleet of In-Town BRT transit vehicles, it is anticipated that the initial In-Town fleet would be replaced in about 2011 with EPT if it is service

proven. If fuel cells or other new technologies have proven themselves by that point in time then they will be considered along with EPT for the In-Town BRT, and the rest of the bus system.

114. *Can the electricity needed be generated directly from the sun, through photovoltaics, for example, on the roofs of bus stops?*

Response: The electricity required to power a transit vehicle currently cannot be generated from the sun. Photovoltaic cells have been used to generate energy to provide power for items that require a lesser amount of power such as telephones, street signs, etc.

115. *What cities use such systems?*

Response: DTS does not know of any city that uses photovoltaic cells to energize transit vehicles.

116. *What is a "transit oriented development"? (5-81)*

Response: "Transit-oriented development", or TOD, refers to a land use pattern that contains a wide mix of activities that promote walking and transit use, as opposed to a land use pattern that forces people to be more auto dependent. TODs are ideal along a high capacity transit system.

117. *Are "transit oriented development," as referred to on page 5-81, desirable?*

Response: Transit-oriented development is desirable in that it provides a life-style choice which is not available by-and-large today for those who would prefer it.

118. *What are some drawbacks of "transit oriented development"?*

Response: While transit-oriented development can provide a host of benefits, such as better air quality, promotion of a healthier lifestyle, etc., some people may opt not to live in a denser, more urban type of environment associated with TOD, and therefore judge it as having drawbacks.

119. *Can all possible proposed developments in the Urban Core and Kapolei be viewed as positive?*

Response: The merits of any development would have to be judged independently.

120. *If this proposal generates another plan for a "360-degree rotating gondola" and "light show on the clouds" would the development be good?*

Response: The merits of any development would have to be judged independently.

121. *Does this mean that desired concentration growth patterns are more difficult in rural, less populated areas than in high-rise areas?*

Response: There is an island-wide goal to maintain the rural areas. Concentrating growth in the PUC and Kapolei is consistent with this goal.

122. *What large landowners would most benefit from this approach?*

Response: It is unclear what the comment means by "approach". In any event, the comment does not appear to be relevant to the proposed project.

123. *Will transit centers increase the value of nearby property?*

Response: It is possible for transit centers to increase the value of nearby property because they improve access to transportation services.

124. *What does "people-carrying capacity" mean?*

Response: The number of persons traveling in vehicles(buses, autos, and trucks) that a section of roadway or guideway can accommodate in a given time period, usually a day or an hour.

125. *Is it socially desirable to increase the "people-carrying capacity"?*

Response: It is environmentally desirable to increase "people carrying capacity" by encouraging a shift to higher occupancy vehicles rather than widening existing roadways and building new roadways.

126. *What are some reasons that communities might want to lower "people-carrying capacity?"*

Response: They don't have constraints to widening roads.

127. *Does "help focus growth along the alignment" mean that the City will oppose growth elsewhere? If not, how will this contain sprawl?*

Response: In order to obtain support from the City for any type of development it must be consistent with the applicable development or sustainable plan.

128. *When did the balance exist?*

Response: What was meant by the statement provided, was to encourage greater use of transit, pedestrian and bicycle modes so that there is not as great a dependency on autos for mobility.

129. *What made it go out of balance?*

Response: Previous transportation policies and investments that encouraged private automobile use at the expense of other modes.

130. *How likely is it that the balance can come back?*

Response: With this project greater use of transit, pedestrian and bicycle modes is expected.

131. *What is the proper balance between pedestrian and bicycle modes?*

Response: Pedestrians and bicycles are not competing modes.

132. *Should balance be a prime objective only within the corridor?*

Response: Greater use of transit, pedestrian and bicycle modes is desirable throughout Oahu.

133. *What are the levels of balance and who determines them?*

Response: The Refined LPA was developed with extensive public input, selected by the City Council, and incorporated into the OMPO TOP 2025 Plan.

134. *How is balance measured?*

Response: Balance is measured in terms of improvement over the No-Build situation.

135. *What is the relationship between PCTP, ORTP and the OMPO CAC?*

Response: The Primary Corridor Transportation Project (PCTP) is the transit element of the financially constrained 2025 Oahu Regional Transportation Plan (ORTP or TOP 2025) and was recommended by the Oahu Metropolitan Planning Organization Citizens Advisory Committee (CAC) for funding.

136. *Will the plan increase or decrease compliance with the ADA?*

Response: Improvements that are part of the Refined LPA will increase compliance with ADA requirements.

137. *How will mauka-makai bicycle trips be effected?*

Response: The Refined LPA will not displace any existing or proposed bikeway facility, such as bike lanes, paths or routes. However, the bike lanes on University Avenue would be moved next to the curb due to the removal of on-street parking on this street. The proposed In-Town BRT will not impede mauka-makai trips by bicyclists, pedestrians, or vehicles.

138. *Which alternative will allow greater shipment of bicycles?*

Response: The Refined LPA has the most buses and since each bus will have bike racks it could transport the most bicycles.

139. *How many bicycles could be transported each day?*

Response: Assuming an average trip length of 5 miles, up to approximately 33,000 bicycles per day.

140. *Will the amount of green space in the PUC go up or down?*

Response: The amount of "green space" within the Primary Urban Center will depend on the aggregate development projects, and government plans for open space.

141. *By how much?*

Response: See response to comment #140.

142. *The boundaries used in various reports do not line up. Why?*

Response: The study areas as shown in the March 1999 Islandwide Mobility Concept Plan (March 1999) and the MIS/DEIS are not meant to be taken literally, but rather as a broad indication of the area under study.

143. *Are the following locations inside the boundary: (a) Waimanalo Gulch; (b) Ford Island; (c) Hickam Air Force Base? The Parsons Brinckerhoff Report (3/99) includes Iroquois Point, Diamond Head, and the Kahala Mall. The DEIS does not. Was the boundary changed after the EISPN was published?*

Response: The boundaries of the study areas as shown in the March 1999 Islandwide Mobility Concept Plan (March 1999) the EISPN and the MIS/DEIS are not meant to be taken literally.

144. *Is the current scope of the project different than that proposed in the EISPN?*

Response: Since the PCTP, Major Investment Study/Draft Environmental Impact Statement [MIS/DEIS] (August 2000) was distributed, and as a result of continuous public involvement and the working groups, the Bus Rapid Transit (BRT) Alternative has been refined. The Refined LPA is the BRT Alternative discussed in the EISPN and MIS/DEIS with the following major refinements:

1. Replacing the Kaonohi Street and Radford Drive ramps with a Luapele Drive ramp;
2. Adding a new In-Town BRT branch (Kakaako Makai Branch) running from the Iwilei Transit Center through downtown Honolulu, the Aloha Tower Marketplace, and Kakaako Makai enroute to Waikiki; and
3. Rerouting a short section of the University of Hawaii-Manoa (UH-Manoa) In-Town BRT alignment from Ward Avenue to Pensacola Street.

In addition, a portion of the former Kakaako/Waikiki Branch (now being referred to as the Kakaako Mauka Branch) was rerouted from Richards Street to Bishop and Alakea Streets. Two new transit stops would be added to the Kakaako Mauka Branch. The Koko Head direction stop would be located on the Ewa side of Bishop Street between Queen Street and Ala Moana Boulevard; the Ewa bound transit stop would be located on the Koko Head side of Alakea Street, between Queen Street and Ala Moana Boulevard. Associated with the Luapele Drive ramp is the relocation of the Pearl City/Aiea Transit Center to Aloha Stadium. The Kakaako Makai Branch would include four transit stops: Aloha Tower, Fort Armstrong, Coral, and Kewalo Basin. The rerouting of a portion of the UH-Manoa alignment to Pensacola Street would create a new transit stop along South King Street at Pensacola Street.

145. *Why is part of Mamala Bay included in the Corridor?*

Response: If you are referring to the figures depicting the Primary Transportation Corridor Study Area (Figures 1.0-1 and others), the marked area should not be taken literally. The figure is intended as a guide to help readers understand roughly where the Primary Transportation Corridor is.

146. *Is both the University of Hawaii and Chaminade University in the PCTP?*

Response: The study area includes both the University of Hawaii at Manoa and Chaminade University.

147. *How do we know that "sprawl development does not support itself"?*

Response: The statement provided, "sprawl development does not support itself" is not in the MIS/DEIS. Since this statement was not in the MIS/DEIS, we do not know what is meant by "support itself". This could mean many things.

148. *Do residents in "older, established neighborhoods" subsidize other neighborhoods and proposed developments?*

Response: The statement, "older, established neighborhoods" is not in the MIS/DEIS. Nevertheless, the question of whether one neighborhood subsidizes another is not relevant to the purposes of this EIS.

149. *Do all residents initially subsidize new projects or do developers pay for needed infrastructure to connect their proposed developments to the existing water, sewer, gas, electric and telephone grids?*

Response: The comment does not appear to be relevant to the proposed project. The cost of new residences typically includes the cost of much of infrastructure needed for the development.

150. *Which developments lack community character on Oahu?*

Response: It is not germane to this EIS to identify which developments lack community character.

151. *If there are no such communities, why make the statement?*

Response: See response to comment #150.

152. *How will building multiple "super-blocks" make better community character and a sense of place?*

Response: Building on super-blocks will not in and of itself produce the desired results. Having larger parcels to develop provides enhanced opportunities to develop urban villages or transit-oriented developments where mixed-use neighborhoods would be connected by transit, walking, or cycling.

153. *Since the development of the H-1, how has population been driven out of Honolulu?*

Response: In the last 20 years the population of Leeward and Central Oahu has increased substantially, whereas the population in the urban core has remained flat.

154. *Did the population level fall within the PCTP?*

Response: See response to comment #153.

155. *Do "big box stores" exist because of freeway ramps or governmental policy that encourages large foreign-owned stores at the expense of local mom-and-pop stores?*

Response: The increase in the number of and market share of so called "big box" retailers have more to do with consumer preferences and other market factors rather than the location of freeway ramps.

156. *How does Saint Louis Heights and Pacific Palisades coincide or differ from the statement: "The vision for Honolulu neighborhoods includes a pleasant mix of small businesses, churches, schools, and locally owned and operated businesses within walking or biking distance of residences or connected by neighborhood circulators"?*

Response: The goal expressed in the vision statement for neighborhoods is the same for both Pacific Palisades and St. Louis Heights.

157. *What would a map of a reversible ramp look like?*

Response: See Preliminary Engineering drawings for Luapele Ramp in Appendix B, Figures R-36 through R-38.

158. *Let's define the following ratios: 1) Pedestrian-Ratio = cost of "facilities to accommodate pedestrians" divided by total new infrastructure cost; 2) Bicycle-Ratio = cost of "facilities to accommodate bicycles" divided by total new infrastructure cost. What is the Pedestrian-Ratio and the Bicycle-Ratio for each Alternative?*

Response: Only the Refined LPA includes sidewalk improvements along the In-Town BRT alignment to improve access to BRT stops. A comparison between alternatives is therefore not possible.

159. *How will the adoption of one of these Alternatives have any effect on protection of primary agricultural land?*

Response: One of the project benefits will be to reinforce directed development, thereby focusing growth in urban areas while simultaneously relieving development pressure on agricultural lands.

160. *What does "sustainable" mean? "The Mobility Concept Plan ... It is not only sustainable over the long run, but absolutely necessary to shape an economically robust future for Oahu." (Persons Brinckerhoff -3/99, page iv).*

Response: Sustainable development refers to the preservation of natural resources through recycling of materials and the efficient use of land so as to improve and protect the quality of the environment, while enhancing the quality of life and well-being of residents.

161. *How will the BRT Alternative enable the C&CH to "Keep the country country"?*

Response: The Refined LPA would focus transit improvements in the primary corridor so as to reinforce and support growth in a desired development pattern.

162. *How will the BRT Alternative enable the C&CH to "Make Honolulu and Kapolei more attractive, livable cities"?*

Response: The Refined LPA would provide an improved transportation linkage between Kapolei and the urban core, offering reasonable and dependable travel times between both regions.

163. *How will the BRT Alternative enable the C&CH to "Reclaim the waterfront"?*

Response: The Refined LPA would complement the Makai Area Plan (August 1998), which seeks to develop the Kakaako waterfront. A key element of any development plan is good transportation. The Refined LPA would provide better public access to the waterfront, making it attractive to developers. According to the Makai Area Plan, the overall vision is "to create an active area through a variety of new developments, including an expansive waterfront park, maritime uses along the harbor, restaurants, seafood markets and entertainment along Kewalo Basin, a children's museum and a theater for performing arts, a world-class aquarium, and commercial development of the interior areas".

164. *How will the BRT Alternative enable the C&CH to create "A healthy and multi-faceted visitor industry"?*

Response: The statement provided, "A healthy and multi-faceted visitor industry" is not in the MIS/DEIS. The Refined LPA will assist in providing an attractive environment for visitors by substantially reducing the number of City diesel buses operating in Waikiki.

165. *What is the relationship between the "21st Century Oahu Vision Program," the "Oahu Trans 2K," the "Islandwide Mobility Concept," and the PCTP?*

Response: Oahu Trans 2K is the public involvement program for the Primary Corridor Transportation Project (PCTP). The 21st Century Vision for Oahu is a program that brings decisions on capital improvements to the community level. Both programs are organized by the City and County of Honolulu. The Islandwide Mobility Concept Plan sets the context for the transit improvements in the PCTP.

166. *What is meant by "mobility options"?*

Response: The term "mobility options" means providing people with model choices (e.g., auto, bus, bicycle, carpool, etc.).

167. *When older neighborhoods are "revitalized", new families come in. The price of property rises. Some of the older residents are then financially squeezed. Property taxes rise. People either leave or cope. Is this what is meant by the following statement: "Achieving this vision means encouraging redevelopment of older urban neighborhoods by improving the quality of life of these areas to attract new residents." The new residents will enjoy a high quality of life while the existing residents on fixed income will move out.*

Response: The statement provided is not exactly the same as what was written at the bottom of page 1-10 of the MIS/DEIS. The statement, "improving the quality of life" is not stated in this section. What is stated is that the "PUC DP (Development Plan) introduces the concept of higher-density housing supported by extensive urban amenities", which could include a BRT system. The statement contained in the MIS/DEIS did not intend to suggest, nor does the impact analysis of the EIS conclude, that the proposed project would cause existing residents in the PUC to move out.

168. *A transit-based travel option, with frequent express service to and from Downtown and connections to strategically located transit centers along the way, is a necessary transportation element to link Oahu's first and second cities, and will encourage their coordinated growth."*

Isn't it more likely that their coordinated growth will be related to the fact that the two cities have the same county council and mayor?

Response: The fact that the Primary Urban Center and the Secondary Urban Center in Ewa are under the jurisdiction of the City and County of Honolulu will help in coordinating their development. The Refined LPA will facilitate planned development to these areas by providing good transit linkages.

169. *"In general, the areas that would be converted to transitways are existing general purpose lanes, shoulders and medians. **The BRT Alternative incorporates a very high level of transit service to draw people out of single-occupant automobiles."** Why not include a much higher use of buses, as suggested by some of the commenters on the EISPN?*

Response: The Refined LPA does reflect a much higher use of buses. The Refined LPA reflects 36 percent more seats being provided than with the No-Build Alternative.

170. *Have any transit systems in the US experienced what is suggested by the following statement?: "An efficient transit system should cause the demand for parking to decline within urban Honolulu. New neighborhood off-street parking facilities could be developed if community-based planning determined it was needed."*

Response: Yes. Probably the most dramatic examples are New York City, Boston, Atlanta, and San Francisco.

171. *"What are bicycle mitigation measures?: Environmental mitigation considerations, including mitigation for loss of on-street parking, replacement of loading zones, and coordination of details of the bicycle mitigation measures with cyclists.*

Response: Where the In-town BRT lane is curbside, cyclists would be allowed use of these extra wide lanes, which is an improvement over the existing condition. Where the In-Town BRT lane is in the median, the project will try to establish 14-foot-wide curb lanes where bike lanes are not possible.

172. *Kalauokalani/Kapiolani (Convention Center) Substation Appendix B-TRM-7 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: Since publication of the MIS/DEIS the potential locations for traction power supply stations (TPSS) have been refined. The currently proposed sites are shown in the FEIS (Appendix B), and the potential impacts are discussed in Chapter 5.

A typical self-contained TPSS facility would be an enclosed structure with dimensions of approximately 35 feet long by 15 feet wide by 10 feet high. Many would be located inside other buildings such as parking structures. The substations will not have photovoltaic cells on the roof. In the event of a black out, the on-board batteries of the embedded plate vehicle would be a temporary source of power. The traction power supply system will connect to more than one HECO substation so that in the event of a blackout of one substation the system will not have to be shut down. Also, underground ducts will supply HECO power to each TPSS, and provide feed

and return circuits between each TPSS and the adjacent segments of the contact system. The HECO substations that each TPSS will be attached to will be determined after coordinating with HECO. The expected EMF readings at the transit stop are zero.

173. *Kapiolani/Hoawe Substation. Appendix B-TRM-7. What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

174. *Kulei/University Substation. Appendix B-TRM-8 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

175. *University (between Dole/Metcalf) Substation. Appendix B-TRM-9. What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

176. *Aloha Tower Substation. Appendix B-TRM-10. What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

177. *Kamakee/Auahi Substation. Appendix B-TRM-11. What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

178. *Ala Moana (near Hobron) Substation. Appendix B-TRM-13 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

179. *Kalia Road/Maluhia Substation. Appendix B-TRM-13 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

180. *Kuhio/Seaside Substation. Appendix B-TRM-14 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

181. *Kalakaua/Duke's Substation. Appendix B-TRM-14 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

182. *Kalakaua/Ulunlu (Waikiki Beach) Substation. Appendix B-TRM-14 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

183. *Kealohilani/Kuhio Substation. Appendix B-TRM-14 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

184. *Kuhio/Kapahulu (Kapiolani Park) Substation. Appendix B-TRM-14 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

185. *McNeill/Dillingham Substation. Appendix B-TRM-2 Appendix B-TRM-14 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

186. *Dillingham (Honolulu Community College across from Alakawa) Substation. Appendix B-TRM-3 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

187. *Iwilei Rd. extension/Kaeahi Substation. Appendix B-TRM-3 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

188. *Kekaulike/Hotel Substation. Appendix B-TRM-4 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

189. *Bishop/Hotel (Union Mall) Substation. Appendix B-TRM-4 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

190. *King/Mililani (Iolani Palace) Substation. Appendix B-TRM-4 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

191. *King/Cooke Substation. Appendix B-TRM-5 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

192. *Pensacola/Kapiolani Substation. Appendix B-TRM-6 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

193. *Kapiolani/Kaaeumoku Substation. Appendix B-TRM-6 What is the anticipated size of the substation (measurements and capacity)? Will the substation be enclosed? Will the substation have photovoltaic cells on the roof, so that mass transit can work in the event of a blackout? Will the lines to and from the substation be underground or overhead? What HECO substation will this substation be attached to? What are the expected EMF readings at the transit stop?*

Response: See response to comment #172.

194. *What currently exists at the Iwilei Transit Center / Park-and-Ride Site?*

Response: The Iwilei Transit Center would be located at the former OR&L property, which contains three buildings with four businesses.

195. *Has the Neighborhood Board taken a position on use of the site?*

Response: The Downtown Neighborhood Board took a position in October 2000 supporting the Bus Rapid Transit Project which includes the proposed Iwilei Transit Center.

196. *Is the proposed site listed in the first volume of the PCTP DEIS?*

Response: Yes.

197. *What currently exists at the Middle Street Transit Center / Park-and-Ride Site?*

Response: The transit center/maintenance facility at Middle Street would be located just makai of the existing Kalihi-Palama bus maintenance facility. Current uses consist of nine industrial/retail businesses and a used car dealership.

198. *Has the Neighborhood Board taken a position on use of the site?*

Response: The Kalihi Neighborhood Board is supportive of the location of the Middle Street Transit Center/Park and Ride.

199. *Is the proposed site listed in the first volume of the PCTP DEIS?*

Response: Yes.

200. *Why has the public presentations heavily favored the BRT choice over the No-Build and other transportation system management options.*

Response: The public presentations attempted to provide a balanced explanation of the relative beneficial and detrimental impacts of each of the alternatives. It may have appeared that the presentation favored the BRT Alternative only because it was found to have the most beneficial impacts.

201. *How can a fast-track approach gel with community consensus?*

Response: Public outreach has been on-going since the start of the PCTP. The project began with public outreach in 1998, the MIS/DEIS was issued in August 2000, and the Locally Preferred Alternative (LPA) was selected by the City Council in November 2000.

Input from the public has been critical in establishing consensus on key issues and developing and evaluating alternative transportation solutions. The development and refinement of the three alternatives discussed in the MIS/DEIS was the result of public input.

Public outreach began with four rounds of Oahu Trans 2K public workshops attended by a total of 1,250 individuals and resulting in the development of the Islandwide Mobility Concept Plan, an important document that integrated public input into transportation goals and objectives for the island. Meetings were held with more than 100 governmental agencies, elected officials, businesses, and business, community and civic organizations to present elements of the Islandwide Mobility Concept Plan and gather information and comments.

In addition, information about the project and public input was solicited through the following: a project website was established and used to disseminate information, a project hotline was established to provide information on the public workshops and to solicit information, and a total of five tabloid-style Progress Reports were distributed to the public periodically with information on the latest status of the project.

The public also had the opportunity to provide input on the various alternatives at a series of four City Council Transportation Committee Meetings prior to selection of the Locally Preferred Alternative (LPA). The Honolulu City Council considered the three main alternatives and also had the option of considering additional alternatives. On November 29, 2000, the City Council selected the BRT Alternative as the LPA at a Special Council Meeting called for that purpose. The LPA was selected after considering cost, ridership, and service to communities, construction impacts, transportation impacts, environmental impacts, travel-time savings, the financial plan, and land use compatibility.

The public was given an opportunity to comment on the Environmental Impact Statement Preparation Notice (EISPN) and the Notice of Intent to Prepare an EIS (NOI). The public provided comments on the MIS/DEIS during a 45-day review period. These comments are responded to in this FEIS.

During the FEIS phase public involvement continued through working groups in five subareas along the primary corridor. A Round 5 public meeting was held as were numerous presentations to Neighborhood Boards and other groups.

Even after the NEPA process has concluded and the ROD has been issued, public involvement will continue in areas requiring further development. These areas include: transit centers, transit stops, joint development, streetscapes, landscaping, street tree master plan, substation location and design studies, aesthetic design of vehicles, ITS and particulars of the ticketing system.

202. *How does the Major Investment Study analyze economic analysis on alternative modes of transportation and its impact on private transportation system?*

Response: Chapter 5 of the FEIS discusses the impacts of the Refined LPA on private transportation providers. The travel market served by private operators such as taxis, shuttles, etc., is distinctly different from that serviced by the Refined LPA. The services provided by private operators would still be needed even with implementation of the Refined LPA.

203. *Has DTS maximized the efficiency of its current bus system?*

Response: DTS has received several annual awards from the American Public Transit Association including in 2000 for operating the most efficient transit system among all other large bus systems in the U.S.

204. *What will be the business impact due to the loss of loading zones?*

Response: Through community outreach efforts including working with members of the Hawaii Transportation Association which represents private freight and passenger carriers, the subarea Working Groups, the Waikiki Improvement Association, and others, the City has developed a plan which minimizes direct impacts on passengar and freight loading zones, and, in the event of unavoidable adverse impacts, identifies alternate loading locations for all businesses along the BRT route. There will not be any measurable impact on businesses due to the loss of loading zones.

205. *Hawaii is the home to a large number of endangered and threatened species. While any given project can minimize the loss of species, the gradual, incremental, expansion of population into mauka regions CAN lead to a loss of habitat. Population growth, increased tourism, conversion of open areas to urban growth, and expansion of transportation (allowing easier access to areas) CAN lead to loss of critical habitat. What precautions have been taken such that the heavily intertwined land use/transportation planning approach will not lead to critical losses in habitat? Please be specific. What studies were reviewed? What people were interviewed? How was the analysis completed? What new analysis was done? What are the credentials of the people who did the analysis for the EIS?*

Response: This project does not provide access to areas that are expected to be designated as critical habitat; therefore, no new studies or analyses were conducted to review critical habitat. Written coordination with the USFWS on endangered species (two letters in May 1999) is documented in the MIS/DEIS. DTS has conducted interagency coordination with the State Department of Land and Natural Resources Division of Forestry and Wildlife (DLNR-DOFAW), as well as with USFWS. Population growth is expected regardless of whether or not the PCTP is implemented. However, the PCTP would help direct growth to areas that are slated for

development, thereby protecting other areas (such as potential critical habitat) from development pressure. Please refer to the List of Preparers in the FEIS for the credentials of those involved in preparing the document.

206. *Please enclose a full bibliography.*

Response: The FEIS includes a bibliography.

207. *Please enclose a full list of terminology.*

Response: The FEIS includes a glossary of terminology.

208. *What are the terms, conditions, and requirements of federal funding for this project?*

Response: Chapter 6 of the FEIS provides a detailed presentation of the proposed financial plan for the project, including each of the proposed federal funding sources. It includes a description of the federal funding source, the annual revenue amounts authorized and/or requested by source, terms, conditions, and requirements of federal funding sources.

209. *At the first PCTP/Oahu Trans 2K "town meeting" we attended, you asked, "so what would you like at your train station?" Did you ever find out the answer to that question?*

Response: Public suggestions included: parking facilities for transit riders, a daycare facility, wheelchair access, restrooms, bike-and-ride lots, color schemes to match street façade, color-coded transit transfer information, maps and bus schedules, public telephones, trash receptacles, and adequate lighting.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

MASONS UNION

Local #1 of Hawaii, IUBAC • Local #630, OP & CMIA, AFL-CIO
2251 North School Street • Honolulu, Hawaii 96819
Ph: (808) 841-0491 • Fax: (808) 847-4782

November 14, 2000

Transportation Committee
Special Meeting

Mr. Chairman and Members of the Department of Transportation Committee

TESTIMONY IN SUPPORT OF THE BUS RAPID TRANSIT

My name is Allan Los Banos and I am here on behalf of Hawaii Masons Unions Local #1 and Local #630, and its members.

We are in support of the BUS RAPID TRANSIT Project.

This project plays a role in the future of Honolulu and its people. It also provides a solution to the ever growing traffic and commuting problems. This is something that must be addressed now while Honolulu still has the Federal funding capabilities.

For the construction industry, this project will provide the much needed JOBS for Hawaii's workers.

The present economy is still down for the construction industry. This project will provide a BOOST IN THE ECONOMY through the jobs and tax revenues generated. Now is also the time to build since it is a buyers' market. The cost of building now is more advantageous for the owners. Do you remember H-3? It had an original price tag of $38 million about 30 years ago. The delays because of litigation and political bantering caused the H-3 to be one of the highest costing highways in the nation. The final price tag is over $1 billion.

Please get this project on line.

Respectfully,

Allan Los Banos, Jr.
Promotional Specialist

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Allan Los Banos, Jr.
Promotional Specialist
Masons Union
Local #1 of Hawaii, IUBAC, Local #630, OP & CMIA, AFL-CIO
2251 North School Street
Honolulu, Hawaii 96819

Dear Mr. Los Banos:

Subject: Primary Corridor Transportation Project

This is in response to your November 14, 2000 letter and your oral testimony at the November 14, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We are in **support of the BUS RAPID TRANSIT Project.***

   Response: Comment noted. It states the commenter's preference for an LPA.

2. *For the construction industry, this project will provide the much needed **JOBS** for Hawaii's workers.*

   Response: Comment noted. It is a statement of opinion.

3. *The present economy is still down for the construction industry. This project will provide a **boost in the economy** through the jobs and tax revenues generated. Now is also the time to build since it is a buyers' market.*

   Response: Comment noted. It is a statement of opinion.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Na Leo Pohai
The Public Policy Affiliate of The Outdoor Circle

October 26, 2000

Council Member Duke Bainum, Chair
and Council Member Rene Mansho, Vice-Chair
and Members
Transportation Committee
Honolulu City Council
Honolulu, HI 96813

RE: Primary Corridor Transportation Project Communication D-674

Chair Bainum, Vice-Chair Mansho, and Members of the Committee:

Thank you very much for allowing me to speak this evening regarding the Primary Corridor Transportation Project. I am Mary Steiner, speaking on behalf of Na Leo Pohai, the public policy affiliate of The Outdoor Circle.

As you may know, The Outdoor Circle is responsible for planting many of the large, stately trees that beautify urban Honolulu. Throughout its history, the organization has planted thousands of trees and protected many thousands more from being butchered or destroyed. This legacy, Honolulu's urban forest, is worth protecting at all costs.

Chapter 5 of the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) is titled Environmental Analysis and Consequences. Subsection 7 discusses ecosystems and states very clearly that, "Some trees and shrubs would be removed or trimmed to allow the transit stops to be built or the roadway to be widened for the BRT Alternative." Concerning mitigation the document continues, "Mitigation would consist of revegetation and landscaping along the alignment *where possible* (emphasis mine). Although planting plans would not be prepared until later stages of final design, desirable locations for special landscaping treatment include areas where (1) existing landscaping has been lost; (2) substantial opportunities exist for enhancement of existing streetscapes; ...".

As the stewards of our street trees, we find this wholly unacceptable. Why would we be looking at "desirable locations for special landscaping treatment" when we already have landscaping in place? At the very least the MIS/DEIS should commit to making landscaping a priority. In addition, the MIS/DEIS does not address the long term impacts to our environment which may result from the removal of so many urban trees. Our air quality, climate and aesthetics will all be negatively impacted by removing so many trees throughout downtown. We need specifics NOW as to how many trees are truly in jeopardy. The vague statements in this study are not enough

assurance that the lives of so many of our majestic trees will be saved.

The information provided in Figures 5.7-1A and 5.7-1B is in many ways incorrect. The predominant street trees on Dillingham Blvd. are the very large, very old Kamani trees, not monkeypods (although some monkeypods are located there). Due to their age and size they will not relocate successfully, and therefore, everything possible must be done to preserve these trees in place. Trimming these trees to keep them healthy is important, but to severely trim them will damage their structures and ultimately be their demise. These kamani trees are important because there are so few mature kamanis left on Oahu's streets. In addition, the second figure indicates that there are no trees on University Avenue. Actually a few years ago, the City planted a large number of shower trees both in the median strip and as street trees, obviously, these too will be affected by the project and have been overlooked.

I spent the afternoon at the Waikiki Improvement Association Annual Membership Luncheon. A recurring theme of theirs has to do with making their streets greener and more pedestrian friendly. We wonder how this can be achieved with the need keep Kuhio Avenue as wide as possible for the BRT. Already visitors complain that Kuhio is ugly, uninviting and unsafe. We were hoping to have more landscaping and greenery placed there, not less. This plan seems to contradict everything I heard today about making Waikiki more desirable.

Other concerns we have include adequate landscaping at transit centers (locations to be determined), landscape mitigation for parking facilities, impacts to environmentally sensitive areas, and other consequences to our urban forest which is, after all, an integral part of our infrastructure.

The Outdoor Circle has spent 88-years fighting to maintain the beauty of our island. We sincerely hope you will take our objections seriously and specifically address the issues we have stated in this testimony. Until then, we cannot support this proposal.

Thank you for the opportunity to speak tonight.

Mary Steiner
Executive Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL O. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Ms. Mary Steiner, Executive Director
Na Leo Pohai
The Public Policy Affiliate of the Outdoor Circle
1314 South King Street, Suite 306
Honolulu, Hawaii 96814

Dear Ms. Steiner

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the October 5, 2000 Special Transportation Committee Meeting, your oral testimony during the October 26, 2000 Special Transportation Committee Meeting, and your October 26, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *There is one thing that I am sure of and that is that I've done the math for Kapiolani Boulevard and when you take out the two lanes to be able to put your BRT down the middle you end up with 10-foot travel lanes. And we are extremely concerned about the fate of the street trees on either side and down the middle of the road for that reason. It's not addressed that I can find right now and I want to have absolute assurances from the City as we go that those street trees are going to be protected.*

   Response: The discussion on tree impacts in the FEIS provides details on the individual tree impacts expected from the project action. Where possible, project designs have tried to avoid trees. However, some trees will have to be replanted or removed to allow for the necessary road widening. In particular, about eleven Monkeypod trees along Kapiolani Boulevard will be replanted farther from the curb. Trees to be moved will be pruned before replanting, but their canopy is expected to grow back within one year, with full recovery in three to five year's time.

2. *As many of you know, The Outdoor Circle is responsible for protecting many of the trees in urban Honolulu, either planting them and then saving them from destruction as well. We are extremely concerned at the lack of priority that's being given our urban landscape in the MIS/DEIS.*

   Response: A detailed tree survey was conducted in May 2001 by a certified arborist to document existing trees where streets may need to be widened, and to assess the level of impact from such widening. Design drawings have been prepared in close coordination with the arborist to avoid adverse impacts to trees as much as possible.

3. *It doesn't seem to address, in addition, the long-term impacts to our environment which may result from the removal of so many of our urban trees. The MIS/DEIS says very clearly that the trees, for example, on Kapiolani Boulevard and Dillingham Boulevard will either be removed, relocated or severely trimmed back. And I add the word severely in there.*

   Response: Recent project planning has involved careful review of trees along the In-Town BRT alignment that may be adversely affected. Where possible, project designs have tried to avoid trees. However, in some areas, including but not limited to portions of Dillingham Boulevard, Kapiolani Boulevard, University Avenue, Saratoga Road, and Kalia Road in Waikiki, some trees will have to be replanted or removed to allow for necessary road widening. Trees that will be moved back from the existing curb will be pruned for replanting. Canopies of monkeypods and most other trees are expected to grow back within one year, with full recovery in three to five years. Kamani trees will take longest to grow back, about four to eight years for full canopy recovery. In the event that some larger trees cannot be successfully moved back, they will be replaced with smaller trees of the same species. All tree trimming will be coordinated with the City and County's Department of Parks and Recreation, Division of Urban Forestry.

4. *In addition, the information on figures 5.7-1A and 5.7-1B are incorrect. The trees on Dillingham Boulevard, although there are some monkeypod trees, the majority of those trees are very large, very old, very stately Kamani trees. And they really should not be put in harm's way. And from the looks of where the plan will go, those are the trees at risk.*

   Response: Figures 5.7-1A and B have been revised in the Final EIS. Both monkeypods and Kamani trees on Dillingham Boulevard will be affected by street widening. Some smaller trees such as Tabebuia, Fiddlewoods, palms, Coral trees, Plumeria, Vertical Wiliwili, Autograph tree, and dwarf Kou will also be affected. Substantial effort has been taken to keep the impacts to a minimum. For example, lane widths have been reduced to avoid further widening and bus turnouts placed between the Kamani trees instead of street widening to the Koko Head side of Alakawa Street. Where widening is required, these same trees will be relocated farther back from the street rather than being removed, wherever possible. For every Kamani tree removed from the makai side of Dillingham Boulevard, two 10 to 12-inch Kamani trees will be planted on the mauka side to infill existing gaps. Also, of the six Kamani trees on the makai side of Dillingham Boulevard Koko Head of Alakawa Street, three trees are proposed for replanting in the property at the makai Koko Head corner of Dillingham Boulevard and Alakawa Street. Other trees that are removed will be replaced at a one for one ratio.

5. *The reason why they were probably not recognizable to whomever did the study was because we don't have a lot of Kamani trees anymore left as street trees on Oahu. We really need to begin to think about our street trees as being part of our urban forest in the infrastructure that makes our city livable. We really would like to see much more focus put on the landscape and the priorities for that.*

   Response: Comment noted. It is a statement of opinion.

6. *Concerning mitigation the document continues, "Mitigation would consist of revegetation and landscaping along the alignment where possible (emphasis mine). Although planting plans would not be prepared until later stages of final design, desirable locations for special landscaping treatment include areas where 1) existing landscaping has been lost; 2) substantial opportunities exist for enhancement of existing streetscapes; ...". As the stewards of our street trees, we find this wholly unacceptable. Why would we be looking at 'desirable locations for special landscaping treatment" when we already have landscaping in place? At the very least the MIS/DEIS should commit to making landscaping a priority.*

   Response: The statement about special landscaping treatments expresses DTS' commitment to preserving, maintaining, and enhancing the existing streetscape as part of the PCTP. As clarified in the Final EIS, DTS considers landscaping and mitigating the impacts to street trees to be a priority.

7. *In addition, the MIS/DEIS does not address the long term impacts to our environment which may result from the removal of so many urban trees. Our air quality, climate and aesthetics will all be negatively impacted by removing so many trees throughout downtown. We need specifics NOW as to how many trees are truly in jeopardy. The vague statements in this study are not enough assurance that the lives of so many of our majestic trees will be saved.*

   Response: The FEIS Section 5.7 has been revised to contain more specific information about tree impacts and mitigation. No secondary or cumulative impacts on air quality or climate are expected from tree removal, especially as trees will be preserved or relocated wherever possible. Visual and aesthetic resources will be adversely affected in the areas of tree removal and replanting for the first few years after construction, as replanted trees grow back their canopies. Trees that are removed will be replaced at a one for one ratio (two for one ratio for Kamani trees on Dillingham Boulevard). Trees that are relocated on-site or off-site will be monitored for a year. If relocated trees do not survive the transplanting process, they will be replaced at a one for one ratio. Because trees will be mitigated by relocation and/or replacement, there will be no net loss of trees resulting from this project. Therefore, there will be no cumulative impact on trees.

8. *The information provided in Figures 5.7-1A and 5.7-1B is in many ways incorrect. The predominent street trees on Dillingham Blvd. are the very large, very old Kamani trees, not monkeypods (although some monkeypods are located there). Due to their age and size they will not relocate successfully, and therefore, everything possible must be done to preserve these trees in place. Trimming these trees to keep them healthy is important, but to severely trim them will damage their structures and ultimately be their demise. These kamani trees are important because there are so few mature kamanis left on Oahu's streets.*

   Response: See response to comment #4.

9. *In addition, the second figure indicates that there are no trees on University Avenue. Actually a few years ago, the City planted a large number of shower trees both in the median strip and as street trees, obviously, these too will be affected by the project and have been overlooked.*

   Response Figures 5.7-1A and B show the locations of potential tree impacts due to street widening and are not intended to be a complete depiction of trees along the alignment. However, project planning subsequent to the MIS/DEIS has determined that the median trees on University Avenue between Kapiolani Boulevard and Date Street will also need to be removed to accommodate road widening. These rainbow shower trees will be relocated. Section 5.7 and its corresponding figures have been revised in the Final EIS.

10. *I spent the afternoon at the Waikiki Improvement Association Annual Membership Luncheon. A recurring theme of theirs has to do with making their streets greener and more pedestrian friendly. We wonder how this can be achieved with the need keep Kuhio Avenue as wide as possible for the BRT. Already visitors complain that Kuhio is ugly, uninviting and unsafe. We were hoping to have more landscaping and greenery placed there, not less. This plan seems to contradict everything I heard today about making Waikiki more desireble.*

    Response: Minimal tree impacts are expected on Kuhio Avenue. Most trees will either not be affected, or will be pruned. It appears that two trees will have to be removed because their canopy extends too far into the proposed BRT lane to allow pruning. All tree relocations and removals will be mitigated. See response to comment #7. Moreover, the proposed In-Town BRT alignment takes into account the Livable Waikiki plans for widening sidewalks along Kuhio Avenue and provides the opportunity for additional landscaping.

11. *Other concerns we have include adequate landscaping at transit centers (locations to be determined), landscape mitigation for parking facilities, impacts to environmentally sensitive areas, and other consequences to our urban forest which is, after all, an integral part of our infrastructure.*

    Response: DTS agrees that transit centers and parking facilities need to be properly landscaped, and sensitive to the existing neighborhood. There are many creative details, lighting, signage and amenities that can be integrated into these facilities.

12. *The Outdoor Circle has spent 88-years fighting to maintain the beauty of our island. We sincerely hope you will take our objections seriously and specifically address the issues we have stated in this testimony. Until then, we cannot support this proposal.*

    Response: Comment noted. It is a statement of opinion and the objections referred to have been addressed separately.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

THE OUTDOOR CIRCLE
1314 South King St., Suite 306 • Honolulu, HI 96814
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Established 1912
A Non-profit Organization
BRANCHES
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Kane'ohe
Lani-Kailua
North Shore
Wai'alae Kahala
HAWAI'I
Hilo
Ka'u
Kona
Waikoloa Village
Waimea
KAUA'I
MAU'I
GARDEN CIRCLE
Lani-Kai

November 2, 2000

Ms. Cheryl Soon, Director
Department of Transportation Services
711 Kapiolani Blvd., Ste. 1200
Honolulu, HI 96813

RE: Primary Corridor Transportation Project Comments to a Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS)

Dear Ms. Soon:

As you may know, The Outdoor Circle is responsible for planting many of the large, stately trees that beautify urban Honolulu. Throughout its history, the organization has planted thousands of trees, and protected many thousands more from being butchered or destroyed. We believe that this legacy, Honolulu's urban forest, is worth protecting at all costs.

With that in mind, we have reviewed the above referenced document and have both general and specific comments and questions for your consideration:

In general, we are amazed at the lack of studies which are provided to prove the conclusions reached in the MIS/DEIS. For example, the document states that there are no endangered species in the project area, and this may be true, but no botanical survey was done to substantiate this claim. Also missing are traffic congestion studies to show the impacts on the rest of Oahu's traffic as a result of the proposed BRT.

Conclusions regarding the need for this project as stated in the MIS/DEIS are based on a *draft* of the Development Plan for the Primary Urban Center (PUC DP). As a draft, it has not been accepted by the community nor by the Council. This begs the question as to why this project is being proposed at this time. It seems premature. We are very concerned by the document's statement that development will be encouraged near the transit centers. This type of growth is not development, this is urban sprawl. Again, unless and until the PUC DP is accepted, and we know where development should be directed, it is premature to propose this project.

We feel strongly that this plan should not be approved until more information is

provided about the transit centers and their locations. We believe there is insufficient information on which to base a decision on the project.

How does this plan, the draft PUC DP and the Integrated Resource Plan for Water tie into each other? Appropriate community planning dictates that these three plans should be reviewed as one to create the least confusion and damage to our communities. Please provide details on this process.

Please provide us with drawings showing the overall width of Kapi'olani Boulevard. Explain how the median strip trees and the sidewalk trees can remain when two lanes of that road will be dedicated to the In-Town BRT. We fear that many, large stately trees will be destroyed.

Additionally, we question how Ward Avenue (now five lanes, four plus one for turning) can be expanded without using the land currently belonging to Thomas Square. Please provide dimensions, travel way widths and drawings showing this. Under no circumstances should Honolulu's oldest urban park be compromised to accommodate transit.

The same question applies to Kuhio Avenue in Waikiki. How will the transit lanes fit and how does this meet the stated goal of both the community and businesses in Waikiki, which call for making Kuhio Avenue greener and more pedestrian friendly?

Specifically:

Executive Summary:
Please provide details as to how the design of the transit way and transit stops would be integrated with a tree preservation program. What sort of program are you considering?

What sort of coordination efforts will be made to encourage appropriate transit oriented land use and which groups and agencies will be consulted?

Chapter 1 Purpose & Need:

Sec. 1.0
The preface contained a statement claiming that people who attended the Trans 2K meetings have a feeling of "ownership" about this transit plan. How many people attended the meetings and what percentage of Oahu's population to they represent? How do you know that those who attended are truly representative of the public? Perhaps those who attended the meetings have a predisposition toward transit. What was done to get opinions from those who did not or could not attend the meetings? Before the State/City undertakes an expenditure of this magnitude, proof must be given that all people, including the traditionally under-served, have been included in the planning for this project.

If the Development Plan for the Primary Urban Center (PUC DP) is still in draft form, how can the City's land use policy, which requires that transportation and land use be planned and developed together, be applied? This MIS/DEIS attempts to justify a transportation plan based on a Development Plan that has not been accepted by neither the community nor Council.

Chapter 5 Environmental Analysis and Consequences:

Sec. 5.4.1 Impacts related to visual and aesthetic resources
We do not feel there is enough information about the substations which are required every ½ mile should the Council choose the In-Town BRT as its locally preferred alternative. Our unanswered questions include whether or not land will be condemned to build the substations; will street tree be removed to place the substations on public right-of way; what will the substations look like, and information on the water table. The community and Council need to know this information before making a decision on which alternative is acceptable. Except stating that the substations will "blend in with the surrounding neighborhoods and placed underground where the water table permits..." the MIS/DEIS provides no information on these structures.

Regarding the discussion on transit centers, the MIS/DEIS says, "Most transit centers are not located in visually sensitive areas." That sentence implies that the City already knows where the transit centers will be located. Please share this information with the public so that we may comment on the entire project.

The document states that the In-Town BRT would require street widening and/or tree trimming at points along the alignment. Further, it says that any visual impacts on landscaping would be mitigated by providing new street trees or appropriate tree trimming. Please explain what the following statement means: "widening in some areas would not have much impact, because widening is expected to be visually compatible with surrounding land uses."

Section 5.7 Ecosystems
The MIS/DEIS states clearly that, "Some trees and shrubs would be removed or trimmed to allow the transit stops to be built or the roadway to be widened for the BRT Alternative." Concerning mitigation the document continues, "Mitigation would consist of revegetation and landscaping along the alignment *where possible* (emphasis mine). Although planting plans would not be prepared until later stages of final design, desirable locations for special landscaping treatment include areas where (1) existing landscaping has been lost; (2) substantial opportunities exist for enhancement of existing streetscapes; ...". We find this wholly unacceptable. Why would we be looking at "desirable locations for special landscaping treatment" when we already have landscaping in place? At the very least the MIS/DEIS should commit to making landscaping a priority. In addition, the MIS/DEIS does not appear to address the long term impacts to our environment which may result from the removal of so many urban trees. Our air quality, air temperatures, climate, and aesthetics will all be negatively impacted by removing so many trees

throughout downtown. Please provide specifics as to the impacts of trimming, relocating and/or removing a large number of street trees.

The information provided in Figures 5.7-1A and 5.7-1B contains many errors. The predominant street trees on Dillingham Blvd. are the very large, very old Kamani trees, not monkeypods (although some monkeypods are located there). Due to their age and size they will not relocate successfully, and therefore, everything possible must be done to preserve these trees in place. Trimming these trees to keep them healthy is important, but to severely trim them will damage their structures and ultimately be their demise. These kamani trees are important because there are so few mature kamanis left on Oahu's streets. In the same figures, no trees are shown on University Avenue. In fact, a large number of shower trees both in the median strip and as street trees exist and will obviously be affected by the project. Please correct your figures.

Sec. 5.12.11 Aesthetic and Visual:
Language here indicates a commitment to "orderly and clean work sites." However, no commitment is given to protecting the existing trees during construction. Common arboricultural practice calls for tree protection zones to be established around the trees. Such zones protect the trees' bases and canopies from heavy equipment and soil compaction. On average, we recommend 20-foot protection zones around each tree. Trees also must be watered to reduce the negative impacts of construction. Please provide a statement that every measure possible will be taken during construction to protect our street trees and confirm that construction equipment will not be allowed to be parked under trees at any time.

Thank you for the opportunity to comment. We are available to answer any questions you may have and look forward to hearing your response.

Sincerely,

Mary Steiner
CEO

cc: Governor Benjamin J. Cayetano
Ms. Donna Turchie, Federal Transit Administration
Councilmember Duke Bainum
Mr. Robert Bramen, Parsons Brinckerhoff Quade and Douglas

THE OUTDOOR CIRCLE
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MAY '8

Established 1912
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Waimea
KAUA'I
MAUI
GARDEN CIRCLE
Lani-Kailua

May 6, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd floor
Honolulu, HI 96813

RE: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement (SDEIS)
Island of Oahu, District of Honolulu

Dear Ms. Soon:

In addition to our remarks submitted to you dated November 2, 2000 on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS), we offer the following comments on the above referenced Primary Urban Corridor SDEIS. We look forward to receiving your responses to both.

Executive Summary:
Please provide more information about the 13 traction power supply stations (TPSS) which would be required should the embedded plate technology be used. Although the document claims that the TPSS would be concealed within existing parking garages, buildings and transit centers, it indicates that others would be visible. Please provide details as to the size, exact locations, and from where the TPSS would draw its power. Please indicate if these stations will be placed on the public right-of-ways. Has the cost of the land (and rent) to place the TPSS been included in the cost estimates for the project? The SDEIS provides too little information to reach an informed decision as to the environmental and visual aesthetic impact of these stations.

It would be helpful to include a table which identifies the revisions this document contains as opposed to what was contained in the original DEIS.

S.2.2 Evolution of the Alternatives Since the MIS/DEIS:
This section contains a discussion on the community working groups conducted after the Locally Preferred Alternative (LPA) was selected. We note that the working groups were for a small group of invited guests only. It is possible that others might have wanted to participate but could not since they were not invited. Another problem with the working groups was that by holding meetings during the day, only people who could leave their jobs were able to attend. In addition, as of the publication of this document, the Waikiki Working Group has not

completed their meetings (although it is stated otherwise in the document). Please include their findings in the Final Environmental Impact Statement (FEIS) or indicate that another supplemental document will be distributed when their work is concluded.

Also, the memos from all of the working groups should be included as an addendum to the FEIS and not just referred to in the document.

S.2.3 Capitol Costs:
Do the capitol costs include the cost of purchasing the land to relocate the trees on Dillingham, Hotel, Kapiolani, Kuhio, etc? If not, then please update the capitol costs to include the cost of purchasing/condemning the land and show what the true total cost of the project will be.

S.4 Economic Impacts:
Economic impacts during construction can be computed in ways other than the number of jobs gained. What is lacking in this section is an analysis of the economic impacts (in terms of lost business) to the businesses along the route during construction.

The document asserts that there will be, "up to 47 partial business displacements." Please define partial displacement.

S.3.2 Environmental Impacts:
The Visual and Aesthetic Resources section claims, "Project elements such as transit centers, transit stops, and *noise barriers provide urban design opportunities* to improve existing streetscapes with cohesively designed architectural elements, landscaping, street furniture, street trees and lighting" (emphasis added). From our experience, noise barriers are always ugly. Please provide examples of where noise barriers have *successfully* provided urban design opportunities to existing streetscapes or revise your assertion.

The energy consumption by the Refined BRT Alternative is not listed. The paragraph is written in a misleading way and seems to indicate that Refined BRT Alternative would consume hardly any fuel at all. Additionally, please include more information as to from where the energy consumed by this project will come.

Six 20-foot high noise barriers will be needed to reduce noise levels for approximately 150 homes. How will these be designed in order not to not look like another Kahekili Highway? Windward residents continue to be angry over the looks of that State highway.

Although we are delighted the SDEIS covers the issue of tree impacts, we are greatly concerned by the disparity in what was written in the MIS/DEIS. In fact, more than 10% of all street trees along the route are impacted by this proposal. We continue to find this unacceptable. Although the City "hopes" to condemn/purchase additional land on which to plant, they do not own the land as of yet and there are no guarantees that they will proceed with plans to do so. The loss of this many mature trees would have significant long term impacts on our urban environment. This is not addressed in the MIS/DEIS nor in the SDEIS either. Our air quality, temperatures, climate and aesthetics will all be negatively impacted by removing so many trees throughout downtown.

In addition, we continue to question whether it is the call of a certified arborist to decide what trees should be classified as "notable." An arborist is trained to make decisions regarding a tree's health but not about the significance of a tree in the urban environment.

S.3.3 Mitigation Commitments:
As of the writing of this SDEIS it is impossible to commit to the numbers of trees, notable or otherwise, that would be relocated. The City does not own the property to move the trees onto and there is no commitment in the document to purchase it.

The Outdoor Circle absolutely disagrees with relocating the trees on Kapiolani Blvd. The monkeypod trees on Kapiolani were planted between 1928 and 1935. These mature trees with branches overhanging the Boulevard make for a very special and unique streetscape. Even if the City could purchase the land to relocate the monkeypods further off the road, Kapiolani Blvd. would lose the special character that makes Kapiolani Blvd. a joy to drive.

Also missing from the discussion on street trees is where we agreed to allow the removal of a tree, we agreed *only if* two trees were planted in its place. This is especially important on Dillingham Blvd. where the trees are large and mature. They can never be replaced by trees of comparable size and stature. Therefore, two trees should be planted for every one that is removed and this should be so stated in the FEIS.

The SDEIS does not give enough information on the protection of the trees during construction. The Outdoor Circle would like to be a party to the development of the construction specifications calling for the protection/relocation of the trees.

The Outdoor Circle would also like to be a consulted party in further discussions on the development of architectural approaches and details.

S.7 Required Permits and Approvals:
Please provide us with more information on what is a Street Tree Review permit.

Table 1.3.1 Local and State Transportation Goals and Objectives From Adopted Plans:
This table shows the Primary Urban Center Development Plan as a public review draft dated June, 1999. This draft document should not be included in a list of adopted plans. It is highly controversial and has not been endorsed by either the community or Council. We believe all references to the Draft PUC DP should be removed. Our comments of 11/2/2000 were the same.

Section 3.4 Visual and Aesthetic Conditions:
We disagree that the only affected environment changes from the MIS/DEIS are those that result in the Revised BRT alignment. To our knowledge, no studies were conducted which take into account the removal/relocation of more than 10% of our urban trees. This should be done for the FEIS.

Section 3.4.3 Other Special View Opportunities:
The "non-designated district" special view opportunity should include the green canopy cover on Kapiolani Blvd. Please make that change or indicate why you disagree..

Section 3.7.2 Freshwater Fish and Terrestrial Wildlife:
When relocating trees within the project area, please identify in the FEIS what measures will be taken to protect the white tern. Although they are primarily sited outside of the project area, they have been seen in the street trees, particularly in Waikiki and Ala Moana Blvd.

Section 4.5 Bicycling Impacts:
It is insufficient to claim, "A separate bike land would be provided, or an alternative route would be identified, where the BRT alignment would interfere with the present pattern of bicycle travel." Before implementing such an enormous plan as this, more studies of bike routes should be done and the cumulative impacts on traffic, secondary roads and the bikers themselves included in the FEIS. The comment, in the SDEIS, "In most cases, these measures would improve bicycle transportation over existing conditions" may or may not be true.

Section 4.6 Pedestrian Impacts:
The impacts of widening of sidewalks on Kuhio Avenue in Waikiki did not take into account the impacts on street trees. Please identify what those impacts might be.

In addition, if the City does not own the property to widen the sidewalks on Dillingham Blvd., how can positive pedestrian impacts be cited in the SDEIS?

Section 5.4.1 Visual and Aesthetic Impacts:
This section does not mention the impacts resulting from the removal of so many street trees, particularly in the highly sensitive Kapiolani Blvd. district. Please add this into your analysis.

Section 5.7.3 Tree Impacts and Mitigation:
Once again, we are curious as to why the project's certified arborist is the person who decides whether a tree is "notable" given your definition. When collecting information on a culturally significant property you would go to the many stakeholders involved. The same should be done in the case of "notable" trees. Although The Outdoor Circle and the City's Division of Urban Forestry were both consulted in this process there are many groups and individuals that were left out. As with cultural practices, many more groups and individuals should be included in the consultation process.

For the most part we applaud your tree mitigation plans. However, there are still some important items missing from your statements. We disagree with relocating trees on public property to private property. These trees are public trees and should always remain in the public domain. Additionally, although we read of the commitment by the project to identify suitable sites for relocating individual trees, we continue to have concern about the trees' long term survivability. Many of our parks and most of our school campuses do not have the proper irrigation or technology to maintain trees. We believe that the FEIS should commit to a one-for-one tree replacement along the Refined BRT Alternative route except on Dillingham Blvd. where we believe two trees should be replaced for every one that is removed.

We do not believe any trees, whatsoever, should be removed from Kapiolani Blvd. for reasons already stated above.

Section 5.11 Parklands and Section 4(F) Evaluation:
It is unclear when reading the SDEIS how close the project will come to Kapiolani Park and if transit stops are being planned for the zoo. Please clarify this in the final report.

Section 5.12 Impacts of Construction Activities:
This section omits the impacts of construction on our street trees. Please include a discussion on this as well as how the trees will be protected from heavy machinery during construction.

Section 5.13.1 Cumulative Impacts:
Our comment here is the same as previously stated. This section does not give any information on the cumulative impacts which will result by losing 10% of our street trees to this project. Please include a comprehensive report in the final document.

Thank you for the opportunity to comment. We sincerely hope that before a Final Environmental Impact Statement is released that these items will be fully investigated. In addition, we look forward to receiving a response to our earlier letters.

Sincerely,

Mary Steiner
CEO

cc: Council Member Duke Bainum
Ms. Genevieve Salmonson, Director, OEQC
Ms. Donna Turchie, Federal Transit Administration
Mr. Robert Bramen, Parsons Brinckerhoff Quade and Douglas

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD11/00-05354R
TPD5/02-01855R

Ms. Mary Steiner, CEO
The Outdoor Circle
1314 South King Street, Suite 306
Honolulu, Hawaii 96814

Dear Ms. Steiner:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environment Impact Statement (SDEIS). We are responding in two parts. Part A responds to your November 2, 2000 letter regarding the MIS/DEIS. Part B responds to your May 6, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *In general, we are amazed at the lack of studies which are provided to prove the conclusions reached in the MIS/DEIS. For example, the document states that there are no endangered species in the project area, and this may be true, but no botanical survey was done to substantiate this claim.*

   Response: Studies were conducted on resources that were identified as potentially being affected. In addition to those reports specifically cited in the bibliography, numerous unnamed studies contributed to preparation of the MIS/DEIS and FEIS such as noise, air quality, displacements, land use, and historic buildings. Regarding the specific comment about the lack of a botanical survey, it was deemed highly unlikely for an endangered plant to be found in the project area, because the BRT would travel on existing roadways or otherwise disturbed areas; thus, no separate study was conducted.

2. *Also missing are traffic congestion studies to show the impacts on the rest of Oahu's traffic as a result of the proposed BRT.*

   Response: Chapter 4 of the FEIS describes the traffic impacts of the project.

3. *Conclusions regarding the need for this project as stated in the MIS/DEIS are based on a draft of the Development Plan for the Primary Urban Center (PUC DP). As a draft, it has not been accepted by the community nor by the Council. This begs the question as to why this project is being proposed at this time. It seems premature. We are very concerned by the document's statement that development will be encouraged near the transit centers. This type of growth is not development, this is urban sprawl. Again, unless and until the PUC DP is accepted, and we know where development should be directed, it is premature to propose this project.*

Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

4. *We feel strongly that this plan should not be approved until more information is provided about the transit centers and their locations. We believe there is insufficient information on which to base a decision on the project.*

Response: The transit centers and park-and-rides identified in the FEIS as an independent project, or where the transit center will not be built for 12 years or more, will undergo their own environmental review process to address their related impacts and mitigation measures. At that time, details about each individual transit center's specific location, physical characteristics and operations will be documented.

5. *How does this plan, the draft PUC DP and the Integrated Resource Plan for Water tie into each other? Appropriate community planning dictates that these three plans should be reviewed as one to create the least confusion and damage to our communities. Please provide details on this process.*

Response: The draft PUC DP and the IRP for Water are consistent City and County plans. The PCTP is consistent with the draft PUC DP and also with the IRP for Water.

6. *Please provide us with drawings showing the overall width of Kapiolani Boulevard. Explain how the median strip trees and the sidewalk trees can remain when two lanes of that road will be dedicated to the In-Town BRT. We fear that many, large stately trees will be destroyed.*

Response: Where possible, the project has been redesigned to avoid trees. For example, widening is no longer planned for both sides of Kapiolani Boulevard, but will be restricted to only one side of the street. Some BRT stops and pullouts were relocated and carefully placed between existing trees as much as possible to reduce the need to transplant trees. BRT operations were also altered in order to help reduce tree impacts. In order to limit the amount of street widening, exclusive BRT lanes were eliminated in some areas, and were replaced with mixed-use lanes. Despite extensive efforts, some trees will still be affected. On Kapiolani Boulevard eleven monkeypod trees will be relocated on-site, meaning they will be picked up and replanted farther from the curb. None of the median trees on Kapiolani Boulevard between McCully Street and University Avenue will be affected by widening.

7. *Additionally, we question how Ward Avenue (now five lanes, four plus one for turning) can be expanded without using the land currently belonging to Thomas Square. Please provide dimensions, travel way widths and drawings showing this. Under no circumstances should Honolulu's oldest urban park be compromised to accommodate transit.*

Response: As a mitigation measure, Pensacola Street will now be used instead of Ward Avenue. Right-of-way from Thomas Square will not be needed for the transit stop at this location.

8. *The same question applies to Kuhio Avenue in Waikiki. How will the transit lanes fit and how does this meet the stated goal of both the community and businesses in Waikiki, which call for making Kuhio Avenue greener and more pedestrian friendly?*

Response: The BRT will run at curbside along Kuhio Avenue and share the lane with local buses, private buses, and right-turning vehicles. There will also be a general purpose traffic lane in each direction plus left-turn lanes. This revised cross-section will permit the sidewalks to be widened and landscaping to be added.

9. *Please provide details as to how the design of the transit way and transit stops would be integrated with a tree preservation program. What sort of program are you considering?*

Response: A tree preservation program is being developed in conjunction with a certified arborist to mitigate unavoidable impacts. On-site relocation is the preferred mitigation option wherever possible, especially for notable trees. Those trees to be relocated on-site will be kept on the same street, but moved back farther from the curb to accommodate road widening. On-site relocation may require some pruning to prepare the tree for transplanting, but the canopy of even mature trees can be kept largely intact. Root balls of appropriate sizes will be contained to move each tree. In the case of on-site relocation, land acquisition by the City and County may be necessary. The tree preservation program will also address methods to minimize tree trimming impacts. A certified arborist would determine the appropriate amount of trimming with the least impact on each tree. The plan will also serve as a tree protection plan to be used during construction. Community input will also be a component in identifying key components of a tree protection plan. Sections 5.7 and 5.12 of the Final EIS provide more details on the tree protection plan. See also response to comment #6.

10. *What sort of coordination efforts will be made to encourage appropriate transit-oriented land use and which groups and agencies will be consulted?*

Response: If the current draft of the Primary Urban Center Development Plan were adopted by the City Council in basically its current form, the implementation tools proposed in the plan would be used to encourage transit-oriented development.

11. *The preface contained a statement claiming that people who attended the Trans 2K meetings have a feeling of "ownership" about this transit plan. How many people attended the meetings and what percentage of Oahu's population do they represent? How do you know that those who attended are truly representative of the public? Perhaps those who attended the meetings have a predisposition toward transit. What was done to get opinions from those who did not or could not attend the meetings? Before the State/City undertakes an expenditure of this magnitude, proof must be given that all people, including the traditionally under-served, have been included in the planning for this project.*

Response: According to records listed in Appendix A of the FEIS, total attendance at four rounds of meetings during Oahu Trans 2K was over 1,250. The meetings were well advertised, highly participatory, and structured to facilitate public input into the transportation planning process. The meetings were conducted throughout a large cross-section of Oahu (including: Central Honolulu, Pearl City, Aiea, East Honolulu, Kapahulu, Kalmuki, Waialae, Kahala, Waianae, Kapolei, Ewa Beach, Waipahu, Koolau Loa, Windward Oahu, North Shore, Mililani, Wahiawa, Waikiki, Aina Haina, Hawaii Kai, Mekiki, McCully-Moiliili, Manoa, Waipahu, Waimanalo, Kaneohe, Kahaluu, Kalihi, Palama, Salt Lake, Moanalua, Ala Moana, Kakaako, Chinatown, Downtown Honolulu, Diamond Head, Nuuanu, Alewa and Kailua). For those that could not attend meetings,

communication was maintained through a project mailing list of over 9,000 records, input received through the project website (www.oahutrans2k.com), calls to the project hotline and tear-cards from public meetings/workshops. In addition there has been widespread coverage of the PCTP by the print and broadcast media.

According to the 1999 State of Hawaii Data Book, the population of Oahu for 1999 was 913,222. These numbers are men, women, children and military personnel living on Oahu during that time. The figure, 1,250, is just more than one-tenth of 1% of the population. The attendees included government officials/staff, neighborhood board members, business people, private transit carriers, community members and others, who [didn't necessarily have a predisposition to transit] were interested in contributing to the planning process for future transportation alternatives. Based on this input and the input from proponents and opponents of the various alternatives at public hearings the City Council selected the BRT Alternative as the locally preferred alternative in November 2000.

12. *If the Development Plan for the Primary Urban Center (PUC DP) is still in draft form, how can the City's land use policy, which requires that transportation and land use be planned and developed together, be applied? This MIS/DEIS attempts to justify a transportation plan based on a Development Plan that has not been accepted by neither the community nor Council.*

    Response: See response to comment #3.

13. *We do not feel there is enough information about the substations which are required every 1/2 mile should the Council choose the In-Town BRT as its locally preferred alternative.*

    Response: The FEIS discloses the general locations proposed, physical characteristics and related impacts of the traction power substations should all-electric vehicle technology be used for the In-Town BRT System. Since installation of the TPSS would not start until 2010 and would not be completed until 2017, it is likely that some sites currently being considered will not be available then and alternative sites will be located. At that time more detailed, site specific environmental analyses will be performed.

14. *Our unanswered questions include whether or not land will be condemned to build the substations; will street tree be removed to place the substations on public right-of-way; what will the substations look like, and information on the water table. The community and Council need to know this information before making a decision on which alternative is acceptable.*

    Response: See response to comment #13.

15. *Except stating that the substations will "blend in with the surrounding neighborhoods and placed underground where the water table permits..." the MIS/DEIS provides no information on these structures.*

    Response: See response to comment #13.

16. *Regarding the discussion on transit centers, the MIS/DEIS says, "Most transit centers are not located in visually sensitive areas." That sentence implies that the City already knows where the transit centers will be located. Please share this information with the public so that we may comment on the entire project.*

    Response: See response to comment #4.

17. *The document states that the In-Town BRT would require street widening and/or tree trimming at points along the alignment. Further, it says that any visual impacts on landscaping would be mitigated by providing new street trees or appropriate tree trimming. Please explain what the following statement means: "widening in some areas would not have much impact, because widening is expected to be visually compatible with surrounding land uses."*

    Response: The question is about the following statement in the Visual Impacts discussion of the MIS/DEIS (p. 5-40): "The In-Town BRT transitway would require street widening and/or tree trimming at points along the alignment. Any visual impacts on landscaping would be mitigated through provision of new street plantings or appropriate tree trimming to accommodate the BRT vehicles. Other roadway widening in some areas would not have much impact, because widening is expected to be visually compatible with surrounding land uses." This last part of the comment simply refers to those visual impacts that would not require mitigation. The language has been clarified in the FEIS.

18. *The MIS/DEIS states clearly that, "Some trees and shrubs would be removed or trimmed to allow the transit stops to be built or the roadway to be widened for the BRT Alternative." Concerning mitigation the document continues, "Mitigation would consist of revegetation and landscaping along the alignment where possible (emphasis mine). Although planting plans would not be prepared until later stages of final design, desirable locations for special landscaping treatment include areas where (1) existing landscaping has been lost; (2) substantial opportunities exist for enhancement of existing landscapes; ..." We find this wholly unacceptable. Why would we be looking at "desirable locations for special landscaping treatment" when we already have landscaping in place? At the very least the MIS/DEIS should commit to making landscaping a priority.*

    Response: The statement about special landscaping treatments expresses DTS' commitment to preserving, maintaining, and enhancing the existing streetscape as part of the PCTP. As clarified in the Final EIS, DTS considers landscaping and mitigating the impacts to street trees to be a priority.

19. *In addition, the MIS/DEIS does not appear to address the long-term impacts to our environment which may result from the removal of so many urban trees. Our air quality, air temperatures, climate, and aesthetics will all be negatively impacted by removing so many trees throughout downtown. Please provide specifics as to the impacts of trimming, relocating and/or removing a large number of street trees.*

    Response: The FEIS Section 5.7 has been revised to contain more specific information about tree impacts and mitigation. No secondary or cumulative impacts on air quality or climate are expected from tree removal, especially as trees would be preserved or relocated wherever possible. Visual and aesthetic resources will be adversely affected in the areas of tree removal and replanting for the first few years after construction, as replanted trees grow back their canopies. Trees that are removed will be replaced at a one for one ratio (two for one ratio for Kamani trees on Dillingham Boulevard). Trees that are relocated on-site or off-site will be monitored for a year. If relocated trees do not survive the transplanting process, they will be replaced at a one for one ratio. Because trees will be mitigated by relocation and/or replacement, there will be no net loss of trees resulting from this project. Therefore, there will be no cumulative impact on trees.

20. *The information provided in Figures 5.7-1A and 5.7-1.B contains many errors. The predominant street trees on Dillingham Blvd. are the very large, very old Kamani trees, not monkeypods (although some monkeypods are located there). Due to their age and size they will not relocate successfully, and therefore, everything possible must be done to preserve these trees in place. Trimming these trees to keep them healthy is important, but to severely trim them will damage their structures and ultimately be their demise. These kamani trees are important because there are so few mature kamanis left on Oahu's streets.*

    Response: Figures 5.7-1A and B have been revised in the Final EIS. Both monkeypods and Kamani trees on Dillingham will be affected by street widening. Some smaller trees such as Tabebuia, Fiddlewoods, palms, Coral trees, Plumeria, Vertical Wiliwili, Autograph tree, and dwarf Kou will also be affected. Substantial effort has been taken to keep the impacts to a minimum. For example, lane widths have been reduced to avoid further widening and bus turnouts placed between the kamani trees instead of street widening to the Koko Head side of Alakawa Street. Where widening is required, these same trees will be relocated farther back from the street rather than being removed, wherever possible. For every Kamani tree removed from the makai side of Dillingham Boulevard, two 10 to 12-inch Kamani trees will be planted on the mauka side to infill existing gaps. Also, of the six Kamani trees on the makai side of Dillingham Boulevard Koko Head of Alakawa Street, three trees are proposed for replanting in the property at the makai Koko Head corner of Dillingham Boulevard and Alakawa Street. Other trees that are removed will be replaced at a one for one ratio.

21. *In the same figures, no trees are shown on University Avenue. In fact, a large number of shower trees both in the median strip and as street trees exist and will obviously be affected by the project. Please correct your figures.*

    Response: Figures 5.7-1A and B show the locations of potential tree impacts due to street widening and are not intended to be a complete depiction of trees along the alignment. However, project planning subsequent to the MIS/DEIS has determined that the median trees on University Avenue between Kapiolani Boulevard and Date Street will also need to be removed to accommodate road widening. These rainbow shower trees would be replanted in a different location. Street trees lining University Avenue would not be effected.

22. *Language here indicates a commitment to "orderly and clean work sites." However, no commitment is given to protecting the existing trees during construction. Common arboricultural practice calls for tree protection zones to be established around the trees. Such zones protect the trees' bases and canopies from heavy equipment and soil compaction. On average, we recommend 20-foot protection zones around each tree. Trees also must be watered to reduce the negative impacts of construction. Please provide a statement that every measure possible will be taken during construction to protect our street trees and confirm that construction equipment will not be allowed to be parked under trees at any time.*

    Response: Thank you for noting this omission. Every precaution possible will be taken during construction to protect street trees. Construction mitigation measures will include tree protection zones that will be observed except in cases where earthwork at or near the base of a tree is necessary, construction watering of trees, and prohibiting construction vehicles from being parked under trees to avoid soil compaction.

Part B – SDEIS Comments

23. *Please provide more information about the 13 traction power supply stations (TPSS) which would be required should the embedded plate technology be used. Although the document claims that the TPSS would be concealed within existing parking garages, buildings and transit centers, it indicates that others would be visible. Please provide details as to the size, exact locations, and from where the TPSS would draw its power.*

    Response: The BRT system will initially use hybrid vehicles. The TPSSs would be enclosed in a 35' by 15' structure. If the TPSS cannot be accommodated in a parking garage, building or transit center it would be designed to blend in with the surrounding area. The TPSS would acquire its power from HECO distribution lines.

24. *Please indicate if these stations will be placed on the public right-of-ways.*

    Response: The majority of the In-Town BRT TPSSs will be located on City and State property.

25. *Has the cost of the land (and rent) to place the TPSS been included in the cost estimates for the project?*

    Response: Yes, these costs are included in the cost estimates.

26. *The SDEIS provides too little information to reach an informed decision as to the environmental and visual aesthetic impact of these stations.*

    Response: The TPSSs would either be incorporated into existing or future structures, or would be placed in areas that are not considered to have aesthetic value, such as parking lots. The FEIS discloses the general locations proposed, physical characteristics and related impacts of the traction power substations should all-electric vehicle technology be used for the In-Town BRT System. Since installation of the TPSS would not start until 2010 and would not be completed until 2017, it is likely that some sites currently being considered will not be available then and alternative sites will be located. At that time more detailed, site specific environmental analyses will be performed.

27. *It would be helpful to include a table which identifies the revisions this document contains as opposed to what was contained in the original DEIS.*

    Response: The FEIS indicates changes by the vertical line in the right-hand margin.

28. *5.2.2 Evolution of the Alternatives Since the MIS/DEIS*
    This section contains a discussion on the community working groups conducted after the Locally Preferred Alternative (LPA) was selected. We note that the working groups were for a small group of invited guests only. It is possible that others might have wanted to participate but could not since they were not invited. Another problem with the working groups was that by holding meetings during the day, only people who could leave their jobs were able to attend. In addition, as of the publication of this document, the Waikiki Working Group has not completed their meetings (although it is stated otherwise in the document). Please include their findings in the Final Environmental Impact Statement (FEIS) or indicate that another supplemental document will be distributed when their work is concluded.

Response: Part of the working groups' members' responsibilities was to take the information discussed during the working group meetings and disseminate it to their respective organizations, obtain feedback, and bring that feedback to the working group meetings.

The SDEIS Appendix A, Section A.2.1, states that the working groups were formed in 2001 and at the time the SDEIS was published the Waikiki Working Group had had three meetings. FEIS Appendix A reflects the April 6 and 22, 2002 Waikiki Working Group meetings.

29. *Also, the memos from all of the working groups should be included as an addendum to the FEIS and not just referred to in the document.*

Response: The SDEIS and FEIS Appendix A summarize the major community outreach activities associated with the project.

30. *Do the capital costs include the cost of purchasing the land to relocate the trees on Dillingham, Hotel, Kapiolani, Kuhio, etc? If not, then please update the capital costs to include the cost of purchasing/condemning the land and show what the true total cost of the project will be.*

Response: The capital costs include the cost of purchasing land to relocate the trees.

31. *Economic impacts during construction can be computed in ways other than the number of jobs gained. What is lacking in this section is an analysis of the economic impacts (in terms of lost business) to the businesses along the route during construction.*

Response: The SDEIS and FEIS disclose that businesses near construction sites would be adversely affected by congestion and reduced access, and therefore, may suffer losses in revenues. The revenue losses suffered by affected businesses would vary substantially depending on many factors, such as the type of business, the characteristics of the clientele, and the effectiveness of public information about the status of construction. As described in the SDEIS and FEIS, the City will implement a maintenance of traffic plan so that access to businesses along the project area will be maintained at all times, but detours may be necessary. In addition, the City will implement a public information program so affected businesses are made aware of the status of construction activities, so they can plan accordingly.

32. *The document asserts that there will be, "up to 47 partial business displacements." Please define partial displacement.*

Response: The FEIS discloses the names all the businesses, institutions and residences affected by right-of-way requirements. A partial displacement is defined as an impact on the property, but not to the extent where the inhabitant (e.g., business or residence) would have to be relocated. In general, the partial displacements impacts will involve driveway reconstruction, and displacements of parking or landscaping.

33. *The Visual and Aesthetic Resources section claims, "Project elements such as transit centers, transit stops, and noise barriers provide urban design opportunities to improve existing streetscapes with cohesively designed architectural elements, landscaping, street furniture, street trees and lighting" (emphasis added). From our experience, noise barriers are always ugly. Please provide examples of where noise barriers have successfully provided urban design opportunities to existing streetscapes or revise your assertion.*

Response: The citation provided will be revised in the FEIS Executive Summary to eliminate noise barriers.

34. *The energy consumption by the Refined BRT Alternative is not listed. The paragraph is written in a misleading way and seems to indicate that Refined BRT Alternative would consume hardly any fuel at all. Additionally, please include more information as to from where the energy consumed by this project will come.*

Response: The SDEIS and FEIS Section 5.9 present the energy analysis. The energy analysis includes the No-Build, TSM, and Refined LPA Alternatives for direct energy (operational) and indirect energy (construction). The Refined LPA will require more indirect energy, but result in less direct energy by 2025.

35. *Six 20-foot high noise barriers will be needed to reduce noise levels for approximately 150 homes. How will these be designed in order not to not look like another Kahekili Highway? Windward residents continue to be angry over the looks of that State highway.*

Response: The noise barrier in Kunia was dropped as a noise abatement measure of the PCTP because the H-1 express lanes from Managers Drive to Kapolei are no longer part of this project. The express lane extension is a SDOT project.

36. *Although we are delighted the SDEIS covers the issue of tree impacts, we are greatly concerned by the disparity in what was written in the MIS/DEIS. In fact, more than 10% of all street trees along the route are impacted by this proposal. We continue to find this unacceptable. Although the City "hopes" to condemn/purchase additional land on which to plant, they do not own the land as of yet and there are no guarantees that they will proceed with plans to do so. The loss of this many mature trees would have significant long term impacts on our urban environment. This is not addressed in the MIS/DEIS nor in the SDEIS either. Our air quality, temperatures, climate and aesthetics will all be negatively impacted by removing so many trees throughout downtown.*

Response: A vast majority of the trees that will be effected by this project will be moved slightly. The remaining ones will be relocated on-site or off-site. Only those trees that were determined by a certified arborist to be in poor or fair shape and/or overmature are recommended for removal and replacement with healthy trees.

37. *In addition, we continue to question whether it is the call of a certified arborist to decide what trees should be classified as "notable." An arborist is trained to make decisions regarding a tree's health but not about the significance of a tree in the urban environment.*

Response: Determinations were based on information received during discussions with The Outdoor Circle and the City's Department of Parks and Recreation.

38. *As of this writing of the SDEIS it is impossible to commit to the numbers of trees, notable or otherwise, that would be relocated. The City does not own the property to move the trees onto and there is no commitment in the document to purchase it.*

Response: DTS will obtain the right-of-way necessary for tree relocations in their desired locations.

39. *The Outdoor Circle absolutely disagrees with relocating the trees on Kapiolani Blvd. The monkeypod trees on Kapiolani were planted between 1928 and 1935. These mature trees with branches overhanging the Boulevard make for a very special and unique streetscape. Even if the City could purchase the land to relocate the monkeypods further off the road, Kapiolani Blvd. would lose that special character that makes Kapiolani Blvd. a joy to drive.*

    Response: Due to engineering constraints, impacts to eleven monkeypod trees will be unavoidable (ten were reported in the SDEIS, but one tree has since been added to the list). Because the trees will be moved as close as possible to their original locations on Kapiolani Boulevard, and will be moved with minimal pruning, no adverse impacts to the special character of Kapiolani Boulevard are expected.

40. *Also missing from the discussion on street trees is where we agreed to allow the removal of a tree, we agreed only if two trees were planted in its place. This is especially important on Dillingham Blvd. where the trees are large and mature. They can never be replaced by trees of comperable size and stature. Therefore, two trees should be planted for every one that is removed and this should be so stated in the FEIS.*

    Response: The FEIS will state that two Kamani trees will be planted to replace each Kamani tree that is removed on Dillingham Boulevard.

41. *The SDEIS does not give enough information on the protection of the trees during construction. The Outdoor Circle would like to be a party to the development of the construction specifications calling for the protection/relocation of the trees.*

    Response: Additional information will be provided in the FEIS to specify tree protection plans to be implemented during construction. The Outdoor Circle will be kept informed of construction specifications that will be determined in cooperation with the Department of Parks and Recreation.

42. *The Outdoor Circle would also like to be a consulted party in further discussions on the development of architectural approaches and details.*

    Response: DTS will continue to coordinate with the Outdoor Circle on those matters of interest to your organization.

43. *Please provide us with more information on what is a Street Tree Review permit.*

    Response: A Street Tree Review will be conducted by the Department of Planning and Permitting (DPP) as part of the construction plan review by the City and County. The DPP's Street Tree Review applies only to those trees not located within a Special Design District; affected trees inside designated Special Design Districts will be addressed in the Special Design District Permit.

44. *Table 1.3.1 Local and State Transportation Goals and Objectives from Adopted Plans*
    This table shows the Primary Urban Center Development Plan as a public review draft dated June, 1999. This draft document should not be included in a list of adopted plans. It is highly controversial and has not been endorsed by either the community or Council. We believe all references to the Draft PUC DP should be removed. Our comments of 11/2/2000 were the same.

    Response: We assume you are referring to Table 5.1-2 of the MIS/DEIS, which was not provided in the SDEIS. We disclosed that the Primary Urban Center Development Plan (PUC DP) update has not been adopted by the City Council. We chose to unofficially discuss project consistency with the Revised Draft PUC DP in the MIS/DEIS and the SDEIS along with the official discussion of project consistency with the existing PUC DP because we wanted to inform the public how transit-oriented development concepts of the revised draft (i.e. urban villages) would be supported by the BRT alternative.

45. *We disagree that the only effected environment changes from the MIS/DEIS are those that result in the Revised BRT alignment. To our knowledge, no studies were conducted which take into account the removal/relocation of more than 10% of our urban trees. This should be done for the FEIS.*

    Response: Because the tree impacts will be mitigated by relocation and/or replacement, there will be no net loss of trees. Therefore, there will be no cumulative impact on trees.

46. *The "non-designated district" special view opportunity should include the green canopy cover on Kapiolani Blvd. Please make that change or indicate why you disagree.*

    Response: The visual impacts discussion in Section 3.4 of the Final EIS has been revised to include reference to Kapiolani Boulevard, as requested.

47. *When relocating trees within the project area, please identify in the FEIS what measures will be taken to protect the white tern. Although they are primarily sited outside of the project area, they have been seen in the street trees, particularly in Waikiki and Ala Moana Blvd.*

    Response: Section 5.7 of the SDEIS addressed this issue. DTS has conducted interagency coordination with the State Department of Land and Natural Resources and with the U.S. Fish and Wildlife Service. A survey of the project area will be conducted for white terns and their nests prior to final design, and sensitive trees and areas will also be monitored immediately prior to and/or during construction activities affecting trees.

48. *It is insufficient to claim, "A separate bike lane would be provided, or an alternative route would be identified, where the BRT alignment would interfere with the present pattern of bicycle travel." Before implementing such an enormous plan as this, more studies of bike routes should be done and the cumulative impacts on traffic, secondary roads and the bikers themselves included in the FEIS. The comment, in the SDEIS, "In most cases, these measures would improve bicycle transportation over existing conditions" may or may not be true.*

    Response: We disclosed in the MIS/DEIS and SDEIS that many of the streets proposed for use by the In-Town BRT are not currently designated as bikeways, but cyclists still use them. Implementing the In-Town BRT will improve city streets for cyclists. The Hawaii Bicycling League concurs with this. It is not necessary for the project to conduct studies of bicycle usage in Honolulu because of the recently completed Honolulu Bicycle Master Plan (April 1999). The project will implement portions of the master plan as described in Section 4.5.2 of the SDEIS.

49. *The impacts of widening of sidewalks on Kuhio Avenue in Waikiki did not take into account the impacts on street trees. Please identify what those impacts might be.*

    Response: An inventory and analysis of trees on Kuhio Avenue has been conducted, the results of which are included in the FEIS. Several trees will need to be pruned or relocated along Kuhio Avenue, but no tree removals are anticipated.

50. *In addition, if the City does not own the property to widen the sidewalks on Dillingham Blvd., how can positive pedestrian impacts be cited in the SDEIS?*

    Response: Currently, Dillingham Boulevard has a wide sidewalk corridor (8-12 feet wide) within the existing right-of-way. Much of the existing sidewalks are uneven and cracking due to uplift from the Kamani trees (from Waiakamilo to King Street). In addition, significant portions of Dillingham Boulevard do not have sidewalk curb ramps (from Middle Street to Kalihi Street). Existing sidewalks will be upgraded to comply with ADA requirements by providing smooth sidewalks and curb ramps. Sidewalk improvements will also include providing new sidewalks in some locations that currently do not have any. Some land acquisition will be required at the intersections to accommodate the required road widening. However, this is isolated to the intersections and the bus pullouts. The total land acquisition comprises approximately 16% of the total sidewalk corridor length. Therefore, the remaining 84% of sidewalk corridor length will be improved without any land acquisition.

51. *Section 5.4.1 Visual and Aesthetic Impacts*
    This section does not mention the impacts resulting from the removal of so many street trees, particularly in the highly sensitive Kapiolani Blvd. district. Please add this into your analysis.

    Response: Section 5.4.1 of the FEIS has been revised to address potential visual impacts resulting from tree impacts on Kapiolani Boulevard. Because the tree impacts on Kapiolani Boulevard will be mitigated, as described in Section 5.7, no visual impact is expected.

52. *Once again, we are curious as to why the project's certified arborist is the person who decides whether a tree is "notable" given your definition. When collecting information on a culturally significant property you would go to the many stakeholders involved. The same should be done in the case of "notable" trees. Although the Outdoor Circle and the City's Division of Urban Forestry were both consulted in this process there are many groups and individuals that were left out. As with cultural practices, many more groups and individuals should be included in the consultation process.*

    Response: See response to comment #37.

53. *For the most part we applaud your tree mitigation plans. However, there are still some important items missing from your statements. We disagree with relocating trees on public property to private property. These trees are public trees and should always remain in the public domain.*

    Response: Trees that must be relocated will be placed as much as possible on public property. However, due to the importance of relocating trees on-site rather than off-site, public property may not always be available in the immediate vicinity, and private property may have to be considered. Such decisions will be made on a case-by-case basis for each tree during the design phase.

54. *Additionally, although we read of the commitment by the project to identify suitable sites for relocating individual trees, we continue to have concern about the trees' long term survivability. Many of our parks and most of our school campuses do not have the proper irrigation or technology to maintain trees. We believe that the FEIS should commit to a one-for-one tree replacement along the Refined BRT Alternative route except on Dillingham Blvd. where we believe two trees should be replaced for every one that is removed.*

    Response: DTS will monitor trees that are relocated (on-site and off-site) for one year to ensure that they are viable. Trees that do not survive the transplanting process will then be replaced one for one. DTS will replace Kamani trees on Dillingham Boulevard at a two for one ratio.

55. *We do not believe any trees, whatsoever, should be removed from Kapiolani Blvd. for reasons already stated above.*

    Response: See response to comment #39.

56. *It is unclear when reading the SDEIS how close the project will come to Kapiolani Park and if transit stops are being planned for the zoo. Please clarify this in the final report.*

    Response: The only element of the project near Kapiolani Park is a BRT transit stop within the right-of-way of Kapahulu Avenue, fronting the landscaped area of Honolulu Zoo and adjacent to the pedestrian path. This discussion is provided in the FEIS.

57. *Section 5.12 Impacts of Construction Activities*
    This section omits the impacts of construction on our street trees. Please include a discussion on this as well as how the trees will be protected from heavy machinery during construction.

    Response: Section 5.12 has been revised to discuss how trees will be protected during construction. A tree preservation plan will be prepared and implemented during the construction phase of the project.

58. *Section 5.13.1 Cumulative Impacts*
    Our comment here is the same as previously stated. This section does not give any information on the cumulative impacts which will result by losing 10% of our street trees to this project. Please include a comprehensive report in the final document.

    Response: See response to Comment #45.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Testimony in Support of the Proposed BRT System

Hello and thank-you for the opportunity to testify on this important matter. My name is Chris Martelles and I am an executive director of the Pacific Action Alliance (PA'A), who I represent here today. We are a student and community group whose goal is to promote positive and sustainable change, with a membership of over a few hundred.

Efficient, timely, and reliable mass transit is a necessity for Hawaii. Limited land masses such as Hawaii will feel the increasing traffic problems long before other larger and spacious states will. Traffic flows are predicted to double in Hawaii in the next 20 years based on current trends. The Bus system that is in place now, although servicing many island residents, is slow, crowded and frequently late. Many cities and states around the world have incorporated a mass transit system into their urban plans, in order to provide an efficient alternative to driving.

Completely dependent on oil, Hawaii must strive to make the leap to a modern, sustainable world. Mass transit will be an integral part of this leap.

BRT will help address these problems because....

-BRT will be faster than ordinary buses, and time is precious to students, young people, and business professionals
-An efficient mass transit system will offer people a viable alternative to driving
-BRT's electric or hybrid vehicles will help keep our air clean, as the natural environment is Hawaii's most precious resource
-There will be a consumer demand for it

I hope that you will vote favorably on the move to join the modern world, and bring Honolulu into the next century. During the next decade, Oahu especially, will see the obvious necessity and demand for an efficient mass transit system. They work very well in other parts of the world. It is time for it to start working well for us.

Thank-you very much for your time.

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Chris Martelles
Executive Director
Pacific Action Alliance

Dear Mr. Martelles:

Subject: Primary Corridor Transportation Project

This is in response to your testimony regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *Efficient, timely, and reliable mass transit is a necessity for Hawaii. Limited land masses such as Hawaii will feel the increasing traffic problems long before other larger and spacious states will. Traffic flows are predicted to double in Hawaii in the next 20 years based on current trends. The bus system that is in place now, although servicing many island residents, is slow, crowded and frequently late. Many cities and states around the world have incorporated a mass transit system into their urban plans, in order to provide an efficient alternative to driving.*

   Response: Thank you for your comments. The City is always striving to improve the public transit system and the BRT is an additional component in that effort.

2. *Completely dependent on oil, Hawaii must strive to make the leap to a modern, sustainable world. Mass transit will be an integral part of this leap.*

   Response: Comment noted.

3. *BRT will address these problems because ...*

   – BRT will be faster than ordinary buses, and time is precious to students, young people, and business professionals

   – An efficient mass transit system will offer people a viable alternative to driving

   – BRT's electric or hybrid vehicles will help keep our air clean, as the natural environment is Hawaii's most precious resource

   – There will be a consumer demand for it.

   Response: We concur with these comments.

4. *I hope that you will vote favorably on the move to join the modern world, and bring Honolulu into the next century. During the next decade, Oahu especially, will see the obvious necessity and demand for an efficient mass transit system. They work very well in other parts of the world. It is time for it to start working well for us.*

   Response: Thank you for supporting the BRT project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

TESTIMONY OF RICHARD KANE
OF THE PACIFIC RESOURCE PARTNERSHIP
SEPTEMBER 25, 2000

My name is Richard Kane. Today I am providing testimony for The Pacific Resource Partnership, the market recovery program of Hawaii's Carpenters Union and its Signatory contractors.

All of us are here today because the City Council will soon be selecting one of three Primary Urban Corridor transportation alternatives.

We support the most ambitious of the three alternatives, the Bus Rapid Transit alternative. We support this alternative because it is the best long-range plan for moving people between the rapidly developing second city of Kapolei and Honolulu's urban core.

No doubt some residents in Kapolei and Waipahu are concerned about the construction of transit centers and park-and-ride facilities in their neighborhoods. In response to such concerns, the PUC major investment study promises that the impact of any additional traffic will be minimized through site selection. The study also assures us that visual conditions will be maintained or improved through "cohesively designed landscaping, street furniture, street trees and lighting."

The Pacific Resource Partnership applauds the results of the involvement of Oahu's stakeholders in the creation of this transportation vision. Their vision is best realized through the Bus Rapid Transit alternative. We urge your support of that alternative.

Thank you for this opportunity to share.

Richard Kane

ThePacificResource
PARTNERSHIP

Pacific Tower • Suite 1501
1001 Bishop Street
Honolulu, Hawaii 96813
Telephone (808) 528-5557 • Fax (808) 528-0421

October 12, 2000

My name is Richard Kane. Today I am providing testimony on behalf of The Pacific Resource Partnership (PRP), the market recovery program of Hawaii's Carpenters Union and its signatory contractors. PRP appreciates this opportunity to comment on the City & County's Draft Environmental Impact Statement (DEIS) of the Primary Corridor Transportation Project. PRP supports the Bus Rapid Transit (BRT) alternative.

Oahu's primary transportation corridor stretches from Kapolei to Waikiki. Most of Oahu's travel occurs within this corridor, where the transportation infrastructure is currently insufficient. Improvements are needed – as soon as possible!

The City and County recently completed an extensive community-based transportation planning effort, Trans 2K. That effort has lead to historic, widespread community agreement on fundamental issues.

Within the framework of that agreement, it is further understood that:

- Transit has to be fast. According to the DEIS, the in-town BRT vehicle, operating on an exclusive lane, would take eight minutes to travel from Middle Street to Downtown Honolulu.
- It must attract new riders. According to the DEIS, only the BRT will result in a significant number of new transit trips.
- It should accommodate future transportation needs. According to the DEIS, only the in-town BRT will be capable of handling any increase in transit trips downtown in 2025.
- It needs to be reliable. According to the DEIS, the in-town BRT would operate every two minutes during the peak periods from Middle Street to Downtown, and every four minutes during peak periods on the branch segments.

Attendees at meetings such as these tend to eloquently express their many concerns with the specifics of a transportation initiative. Instead, PRP is here primarily to express its support of the extensive, community-based transportation visioning process undertaken by the City & County of Honolulu. However, it is also important to note that only the BRT alternative provides the vision of a transportation infrastructure that is sufficient to improve Oahu's quality of life. Thanks for the opportunity to share!

Richard C. Kane
richkane@prp-hawaii.com

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Richerd Kane
The Pacific Resource Partnership
Pacific Tower, Suite 1501
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Kane:

Subject: Primary Corridor Transportation Project

This is in response to your September 25, 2000 letter, October 12, 2000 letter, and your oral testimony at the October 12, 2000 formal Public Hearing regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We support the most ambitious of the three alternatives, the Bus Rapid Transit Alternative. We support this alternative beceuse it is the best long-range plan for moving people between the rapidly developing second city of Kapolei and Honolulu's urban core.*

   Response: Comment noted. Your comment is a statement of the preference for an LPA.

2. *PRP supports the Bus Rapid Transit (BRT) alternative.*

   Response: Comment noted. It is a statement of the commenter's preference for an LPA.

3. *Within the framework of that agreement, it is further understood that Transit has to be fast. According to the MIS/DEIS, the in-Town BRT vehicle, operating on an exclusive lane, would take eight minutes to travel from Middle Street to Downtown Honolulu. It must attract new riders. According to the DEIS, only the BRT will result in a significant number of new transit trips. It should accommodate future transportation needs. According to the DEIS, only the in-Town BRT will be capable of handling any increase in transit trips downtown in 2025. It needs to be reliable. According to the DEIS, the in-Town BRT would operate every two minutes during the peak periods from Middle Street to Downtown, and every four minutes during peak periods on the branch segments.*

   Response: Comment noted. The statements are consistent with the MIS/DEIS.

4. *However, it is also important to note that only the BRT alternative provides the vision of a transportation infrastructure that is sufficient to improve Oahu's quality of life.*

Response: Comment noted. The project agrees with this statement.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

SIERRA CLUB, HAWAI'I CHAPTER
P.O. Box 2577
Honolulu, HI 96803
tel: 538.6616

Director: Jeffrey Mikulina
mikulina@lava.net
fax: 537.9019

Mālama i ka Honua

'00 OCT 24 P2:09

20 October 2000

Cheryl Soon
City & County Department of Transportation Services
777 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Governor Benjamin Cayetano
c/o Office of Environmental Quality Control
235 South Beretania St. Suite 702
Honolulu, HI 96813

The Sierra Club, Hawai'i Chapter, supports the Bus Rapid Transit plan as described in the Major Investment Study/Draft Environmental Impact Statement.

By providing more efficient and speedier transit options, we can help make that shift away from autos. What this plan does in town is gets cars out of the way so that buses can run on time. It does so in a modest, balanced way. If the projections hold, the plan will save nearly 40 thousand barrels of oil per year for the BRT alternative.

Smart transportation plans should do two things: 1) move people from point A to point B in an efficient and cost-effective manner; and 2) help control land-use decisions to foster smart growth. Many residents in Honolulu (estimated at 25%) cannot or do not have access to a car, making expanded public transit even more important.

The Sierra Club, Hawai'i Chapter, supports the efforts the City has made in regards to the PUC Transportation plan and would like to see the BRT alternative implemented.

Below are some specific concerns that we would like to see better addressed in the FEIS:

5-3 The in-town BRT must utilize electric or fuel cell technology. In order to attract transit riders away from their private automobiles, the transit system must be made attractive. A quiet, zero-emission vehicle would further entice non-transit types to try the new system. A noisy, polluting bus would not. There are other reasons for this as well:

- Technology: while electric and fuel cell technology is starting to mature, petroleum-based energy is yesterday's technology. Given greenhouse gas reduction protocols, resource depletion and political vagaries of oil exporting countries, selecting oil-based technology doesn't make sense.

- Renewable energy: Hawai`i is the most oil-dependent state in the nation. Diesel-burning buses won't help Hawai`i make the transition to a renewable-based energy system. An electric transit system could be integrated with a renewable-energy powered grid.
- Construction impacts: the system should be built right the first time to avoid costly and annoying construction impacts from installing electric systems later.
- Permanence: by building a more elaborate setup (instead of just another lane), developers are more likely to follow-through with plans on redevelopment of key areas.
- Local pollution: carbon monoxide levels at many key intersections will exceed the state's ambient air quality standards in 2025. A zero emission transit system will help to reduce transportation's contribution to the problem.
- Attractiveness: a zero-emission, quiet, electric propulsion system is much more attractive than a loud, polluting diesel engine. Tourists and residents alike would likely be more attracted to an electric or fuel cell system.

2-24 Why doesn't the in-town transit line—or other components of the BRT—extend to the airport? Will tourists actually have to transfer at Middle Street if they wish to use transit to get to Waikiki?

2-27 Why are both in-town BRT lines so far makai in the Kakaako area? Wouldn't it make more sense to move one of the lines further mauka, especially if it could take advantage of one of the one-way corridors (Beretania or King)?
Joining the in-town BRT transitway with a bikeway offers the following benefits:

- Predictability of transit vehicles versus private automobiles for biker safety.
- Minimize bike-car interactions.
- Minimize transit-car interactions.
- Healthier for bikers if zero-emission vehicles are used for transit.

An ideal might be to use Young Street as an in-town BRT and bikeway-only street.

2-31 How realistic and feasible is the STREAM electric technology for the in-town BRT? Or has this just been added as an enticement that will not appear in the final transit system?

2-47 Aside from transit center parking lots and bike racks offered on buses, how are the TSM and BRT multi-modal? How do they mesh airport and ferry users?

3-9 The Sierra Club is concerned about inducing development on he Ewa plain and central O`ahu—especially with more residential development that lacks the components of a smart growth community. Will this plan induce more residential-only construction in these areas?

3-10 What actions are being taken by the City or State to encourage mixed-use development in the Primary Urban Corridor to reduce separation of living, working, and shopping (or "productive" and "attractive" endpoints) to minimize transportation need? Will green spaces in the Kakaako and Keeaumoku Street area be enhanced or preserved?

3-58 Lead levels should be indicated in units or measuring intervals that are equivalent to the ambient air quality standards.

3-68 The presence of endangered species is mentioned on page 3-68, but no mention of impacts or mitigation appear in Chapter 5.

4-4 Much of the impact analysis is based on numbers generated by traffic modeling. Could these analyses of ridership forecasting (Table 4.1-2) and traffic timing be shown? What assumptions were made? What types of models were used?

4-5 Number of transfers that are needed (nearly 50% of all transit rides) will be a deterrent to use transit. Transfers should be minimized or other incentives need to be put in place. Every incentive possible should be implemented to increase the attractiveness of the using transit. For example, electric tracking indicators at the transit stops could be used to convey the estimated time of arrival of the next appropriate bus. Or bus schedules and updates could be made available for use in Palm Pilots via the web, as the Tri-Met does in Portland, Oregon.

Some employers, such as Hawaiian Electric Industries, encourage their employees to use transit through subsidization of bus passes and other incentives. Are any city or state incentives contemplated to ensure that the new transit system will be used to its fullest?

4-13 Even under BRT, bottlenecks will occur along primary transportation lines. Screenline analysis (Table 4.2-3) indicates that all of the alternatives fail to meet the level of service required at the peak hour. Getting cars off the road must be a main objective in the Primary Urban Corridor transportation plan.

4-24 Bike impacts. No bikeways should be taken away with any plan. Honolulu has a long way to go before it can be considered a "bike-friendly" city. Again, joining transitway and bikeway facilities should be considered as an option along many of the routes. Safety concerns are the most often raised issue when it comes to deterrents to biking in town.

5-43 The carbon monoxide microscale analysis indicates that more needs to be done to reduce human exposure to CO at populated intersections. Clearly, use of alternative technology, such as electric or fuel cell propulsion, would reduce the localized emission of CO and other pollutants.

5-56 The in-town BRT has an opportunity to foster a distinct "sense of place" in Honolulu. This could be done by clearly indicating the ahupua`a on the transit maps, allowing surfboards on the buses (racks along the side?), and planting native trees and plants along the routes.

5-61 Although we support the BRT alternative, is there anything preventing the bus propulsion improvements (electric or hybrid) for the TSM or no-build alternative? This analysis seems to be absent.

5-61 With regards to the annual oil savings the BRT vs. no-build and TSM, the assumption appears to be that all private autos will use similar fuel and achieve similar gas mileage in 2025 as they do in 2000. Is this true?

5-63 The electricity demand for an all-electric in-town BRT is estimated at 11.3 MW. It is difficult to believe that this can be met with the utility's "reserve" capacity. According the Hawai`i Energy Strategy (DBEDT, 2000), Oahu is planning to install 605 MW of additional generating capacity before 2017, most of it from coal sources. How can the 11.3 MW come from "reserve" capacity?

AR00015671

5-63 Will substations need to be constructed to feed electricity to the in-town BRT? Where will they be located? How will this affect the need for the Kamoko-Pukele 138 kV power line project proposed for Waahila Ridge?

5-76 The Hawai'i Department of Transportation Water has a terrible record when it comes to protecting Hawaii's water. They have been cited numerous times for violating the Clean Water Act. Monitoring and oversight must be done during construction and operation to ensure that BMPs and other measures are fully implemented.

We appreciate the opportunity to offer these comments and look forward to your response.

Sincerely,

Jeff Mikulina
Director, Sierra Club, Hawai'i Chapter

cc: Office of Environmental Quality Control

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Jeffrey Mikulina, Director
Sierra Club, Hawai'i Chapter
P.O. Box 2577
Honolulu, Hawaii 96803

Dear Mr. Mikulina:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). We are responding to your oral testimony at the October 12, 2000 formal Public Hearing, your October 20, 2000 letter, and your oral testimony at the October 26, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS.

1. *The Sierra Club Oahu Group supports the transit plan as detailed in the MIS/DEIS.*

   Response: Comment noted. It states the commenter's preference for an LPA.

2. *By providing more efficient and speedier transit options, the Bus Rapid Transit can make that shift away from automobiles. What this finally does is it not only gets the cars out of the way so buses can get to where they're going on time, it does so in a modest, balanced way. If projections are true, as written up in the report, we'll be saving about 40,000 barrels of oil here as well.*

   Response: Comment noted.

3. *Now, the complaint about the loss of lanes, it's really painfully ironic to us when you think about it. We all hate traffic, but we don't want any less of it. Yet we really think that's what this is going to do, by getting rid of this lane and taking the buses to where we're going on time. You know, if you provide for cars, we'll have more cars. If you provide for mass transit, we'll see greater ridership.*

   Response: Comment noted. It is a statement of opinion.

4. *Now, that said, we do have some caveats. Number one, we don't agree with everything in the Draft Environmental Impact Statement, and you'll be receiving our comments within the next couple weeks. We have to make sure that we don't adversely impact recreational areas or trees or the like.*

   Response: Any adverse impacts to existing or future parks/recreational facilities and/or trees expected to result from this project are discussed in Chapter 5 of the FEIS.

5. *Secondly, we'd really like to strongly encourage that an electronic or hybrid system be implemented immediately and not start with the diesel. You have to do it right the first time so that you don't have to go back and have construction impacts.*

   Response The embedded plate technology (EPT) is electric and the hybrid-electric technology is a step forward toward an all electric technology. The initial In-Town BRT fleet will be hybrid-electric. In 2008 a decision on the long-term technology will be made. It could be to continue with a hybrid technology, to convert to EPT, or to adopt some other non-fossil fuel technology such as fuel cell. The current plan is to convert to EPT if it is service proven and cost-effective to do so.

6. *Second, we're really bordering close on the carbon monoxide emissions in some of those key intersections. We want to make sure we have zero emission and buy vehicles which can produce that.*

   Response: Since the Refined LPA will utilize either zero or low-emission vehicles for the In-Town BRT, it will substantially reduce the level of particulate emissions (black smoke and soot) at certain intersections and street level locations in comparison to the No-Build and TSM Alternatives, which would continue to use diesel buses.

   Carbon monoxide levels at key intersections will be generally lower in the Refined LPA than the No-Build Alternative in the year 2025.

   Estimated worst-case 1-hour carbon monoxide concentrations at selected intersections are projected to be lower with the Refined LPA than the No-Build Alternative at twelve of the seventeen locations. The transit technology chosen would comply with the EPA's regulations for transit buses, including those powered by diesel engines. It is expected that the emissions from diesel/electric hybrids would be significantly lower than the EPA's requirements.

7. *And finally, this won't work alone. We have to implement other measures. I was impressed to find out that some businesses are offering subsidized bus passes and the like. But we have to work with them and encourage flex time, telecommuting, a strong bicycle component in the transit plan, and also market it heavily. We like how this will encourage mixed use development along the corridor, especially in Kakeako, but we need to maintain green spaces there as well.*

   Response: DTS agrees with your statement. For example, the City has recently completed a Honolulu Bicycle Master Plan and the City currently participates in the TEA-21 initiative to subsidize transit use. The City also supports the concepts of flex-time and telecommuting.

8. *The Sierra Club, Hawaii Chapter, supports the efforts the City has made in regards to the PUC Transportation plan and would like to see the BRT alternative implemented.*

   Response: Comment noted. It states the commenter's preference for an LPA.

9. *While electric and fuel cell technology is starting to mature, petroleum-based energy is yesterday's technology. Given greenhouse gas reduction protocols, resource depletion and political vagaries of oil exporting countries, selecting oil-based technology doesn't make sense.*

   Response: See response to comment #5.

10. *Renewable energy: Hawaii is the most oil-dependent state in the nation. Diesel-burning buses won't help Hawaii make the transition to a renewable-based energy system. An electric transit system could be integrated with a renewable-energy powered grid.*

    Response: The embedded plate technology will use electricity generated at a HECO power plant for traction power. Therefore, the BRT would run on renewable energy if renewable resources were used as the energy source for electrical production.

11. *The system should be built right the first time to avoid costly and annoying construction impacts from installing electric systems later.*

    Response: This will not be possible, since EPT is not yet service proven. Chapter 5 of the FEIS addresses the impacts of the construction for the embedded plate system in the future.

12. *By building a more elaborate setup (instead of just another lane), developers are more likely to follow through with plans on redevelopment of key areas.*

    Response: The Refined LPA will provide an enhanced transit system with permanent fixed facilities, such as transit centers, transit stops, and the transit lanes that could support desired development patterns.

13. *Carbon monoxide levels at many key intersections will exceed the state's ambient air quality standards in 2025. A zero emission transit system will help to reduce transportation's contribution to the problem.*

    Response: See response to comment #6.

14. *A zero-emission, quiet, electric propulsion system is much more attractive than a loud, polluting diesel engine. Tourists and residents alike would likely be more attracted to an electric or fuel cell system.*

    Response: See response to comment #5.

15. *Why doesn't the in-town transit line – or other components of the BRT – extend to the airport? Will tourists actually have to transfer at Middle Street if they wish to use transit to get to Waikiki?*

    Response: The BRT is not designed to take tourists to and from the Airport. There are no provisions for baggage on the BRT vehicles and the BRT could not be routed through the airport's central terminal area without major delays to other BRT riders.

    There are other city buses (Routes 19 and 20) and private transportation services that provide tourists with access to the Airport.

16. *Why are both in-town BRT lines so far makai in the Kakaako area? Wouldn't it make more sense to move one of the lines further mauka, especially if it could take advantage of one of the one-way corridors (Beretania or King)?*

    Response: One reason BRT routings through Kakaako occur where they do is to help spur development of vacant and underutilized parcels. By contrast, most parcels in the S. King/

Beretania Street corridor are fully built-up and this corridor is well served by the present bus system. In concert with the BRT project, bus priority improvements will be installed on King and Beretania Streets to even further improve bus service in this corridor.

17. *Joining the in-town BRT transitway with a bikeway offers the following benefits:*
1) Predictability of transit vehicles versus private automobiles for biker safety
2) Minimize bike-car interactions
3) Minimize transit-car interactions
4) Healthier for bikers if zero-emission vehicles are used for transit.
An ideal might be to use Young Street as an in-town BRT and bikeway-only street.

Response: Where it is safe to do so, the In-Town BRT exclusive or semi-exclusive lanes will be shared with bicyclists.

18. *How realistic and feasible is the STREAM electric technology for the in-town BRT? Or has this just been added as an enticement that will not appear in the final transit system?*

Response: STREAM is one of three embedded plate power technologies currently under development by different European companies as alternatives to overhead catenary electric power. The safety, reliability, and infrastructure costs of implementing any embedded power supplied system for the In-town BRT will be carefully evaluated next to the other environmentally friendly technologies when the final decision on technology is being made.

19. *Aside from transit center parking lots and bike racks offered on buses, how are the TSM and BRT multi-modal? How do they mesh airport and ferry users?*

Response: The TSM and BRT (Refined LPA) Alternatives include islandwide bus networks that would be converted to a hub-and-spoke configuration. Hubs in the network will be major destinations and transfer points between different bus routes and between modes. The airport and ferry terminal(s) would be transfer points in the networks.

20. *The Sierra Club is concerned about inducing development on the Ewa plain and central Oahu – especially with more residential development that lacks the components of a smart growth community. Will this plan induce more residential-only construction in these areas?*

Response: The Refined LPA is intended to support the land use objectives of the Ewa Development Plan, which seeks to encourage a mix of residential, commercial and employment growth, with the City of Kapolei being developed as Oahu's "second city".

21. *What actions are being taken by the City or State to encourage mixed-use development in the Primary Urban Corridor to reduce seperation of living, working, and shopping (or "productive" and "attractive" endpoints) to minimize transportation need? Will green spaces in the Kakaako and Keeaumoku Street area be enhanced or preserved?*

Response: The Public Review Draft of the Primary Urban Center Development Plan (PUC DP) (June 1999) promotes the concept of "urban villages", a mix of residential, employment and commercial land uses. The public review draft also provides for green spaces throughout the city. The In-Town BRT would support the land use objectives of the PUC DP.

22. *Lead levels should be indicated in units or measuring intervals that are equivalent to the ambient air quality standards.*

Response: The unit indicated on Table 3.5-2, ug/m^3, for lead is also used on Table 3.5-1, which indicates the National and State Ambient Air Quality Standards.

23. *The presence of endangered species is mentioned on page 3-68, but no mention of impacts or mitigation appears in Chapter 5.*

Response: Section 5.7 of the FEIS states that no State or federally listed, proposed, or candidate threatened or endangered plant or animal species described in Section 3.7 is likely to be affected, with the exception of the white tern (Gygis alba), which is listed by the State as endangered on Oahu. Sites currently used by white terns on Oahu include Kapiolani Park, Thomas Square, Fort DeRussy, Iolani Palace, and parts of downtown and the Capital District. White terns are well-adapted to urban environments, and no interaction with adults of this species is anticipated. The primary concern regarding white terns is to avoid disturbing their eggs, which are laid on bare tree branches. A survey of the project area will be conducted for white terns and their nests prior to final design. Sensitive trees and areas will also be monitored immediately prior to and/or during construction activities that involve tree relocation, removal, and/or trimming. All monitoring will be coordinated with the USFWS. DTS will also coordinate tree trimming with the Department of Parks and Recreation, which has standard procedures to avoid impacts to white terns and their eggs.

24. *Much of the impact analysis is based on numbers generated by traffic modeling. Could these analyses of ridership forecasting (Table 4.1-2) and traffic timing be shown? What assumptions were made? What types of models were used?*

Response: The travel forecasts for the Primary Corridor Transportation Project were developed using travel forecasting procedures developed for the Oahu Metropolitan Forecasting Model Development Project. These procedures simulate the choices made by residents, business, and visitors regarding the nature, number, mode, time-of-day, and geographic orientation of trips that they make on a typical weekday. The procedures have been developed with data obtained in extensive surveys of Oahu households, transit riders, and air passengers. Future year forecasts reflect the population and employment forecasts that have been prepared by DBEDT and the zonal allocations that have been prepared by the City Department of Planning and Permitting.

The travel forecasting methodology and resulting travel forecasts used for the Primary Corridor Transportation Project are described in Chapter 2 of Product 7-19 Technical Memorandum of Travel Forecasting Results (Final). The transportation plan for Oahu is described in the Oahu Metropolitan Planning Organization's report, Transportation for Oahu Plan TOP 2025.

25. *Number of transfers that are needed (nearly 50% of all transit rides) will be a deterrent to use transit. Transfers should be minimized or other incentives need to be put in place.*

Response Since publication of the MIS/DEIS, the transit system has been revised to reduce the number of transfers. As shown in Table 4.2-4 in the FEIS, the number of boardings per linked trip (transfer rate) has been reduced from 1.47 reported in the MIS/DEIS to 1.38 with the Refined LPA.

26. *Every incentive possible should be implemented to increase the attractiveness of using transit. For example, electric tracking indicators at the transit stops could be used to convey the estimated time of arrival of the next appropriate bus. Or bus schedules and updates could be made available for use in Palm Pilots via the web, as the Tri-Met does in Portland, Oregon.*

    Response: Traveler information displays using global positioning technology are planned for at the transit centers and major BRT stops. These displays would include estimated time of arrival for the next bus on each route that stops at that location.

27. *Some employers, such as Hawaiian Electric Industries, encourage their employees to use transit through subsidization of bus passes and other incentives. Are any city or state incentives contemplated to ensure that the new transit system will be used to its fullest?*

    Response: The transit system is currently subsidized by the City as will the new BRT. Additionally, bus passes can be purchased with pre-tax dollars by City and state employees to further reduce the effective out-of-pocket cost.

28. *Even under BRT, bottlenecks will occur along primary transportation lines. Screenline analysis (Table 4.2-3) indicates that all of the alternatives fail to meet the level of service required at the peak hour. Getting cars off the road must be a main objective in the Primary Urban Corridor transportation plan.*

    Response: Although it is correct that some screenlines will continue to operate at LOS F in 2025 under each of the alternatives considered in the FEIS, the Refined LPA is projected to result in less congestion compared to the other alternatives at most screenlines.

29. *No bikeways should be taken away with any plan. Honolulu has a long way to go before it can be considered a "bike-friendly" city. Again, joining transitway and bikeway facilities should be considered as an option along many of the routes. Safety concerns are the most often raised issue when it comes to deterrents to biking in town.*

    Response: The Refined LPA will not displace any existing bikeway facility, such as bike lanes, paths or routes. However, bike lanes on University Avenue would be moved next to the curb due to the removal of on-street parking on this street. To improve bicycling transportation under the Refined LPA, the Hawaii Bicycling League (HBL) was invited to participate in project planning. Where the In-Town BRT lane is curbside, cyclists would be allowed use of these lanes. Where the In-Town BRT lane is in the median, the project would try to establish 14- foot -wide curb lanes where bike lanes are not possible. In terms of future bikeway facilities, as identified in the Honolulu Bicycle Master Plan, the Refined LPA would not preclude any of the suggested projects. The HBL agreed that the Refined LPA would improve bicycle transportation within Honolulu.

30. *The carbon monoxide microscale analysis indicates that more needs to be done to reduce human exposure to CO at populated intersections. Clearly, use of alternative technology, such as electric or fuel cell propulsion, would reduce the localized emission of CO and other pollutants.*

    Response: See response to comment #6.

31. *The in-town BRT has an opportunity to foster a distinct "sense of place" in Honolulu. This could be done by clearly indicating the ahupuaa on the transit maps, allowing surfboards on the buses (racks along the side?), and planting native trees and plants along the routes.*

    Response: There is a limit to how much information can be placed on a transit map and still have it be useful to riders. While having ahupuaa indicated on some circulator bus route maps could be helpful, it would not be as useful information for BRT riders as would denoting street names, landmarks, transfer points, etc.

    With regard to allowing surfboards on BRT vehicles, this is not proposed due to the danger to passengers and their potential to block aisles. There is no place to put surfboard racks on the side of a bus where it would be safe for passengers waiting at platforms, or for motorists and bicyclists in the adjacent lanes.

    Decisions on the types of specific plantings along the route will be made during the final design phase.

32. *Although we support the BRT alternative, is there anything preventing the bus propulsion improvements (electric or hybrid) for the TSM or no-build alternative? This analysis seems to be absent.*

    Response: While it could be done, it would be inconsistent to consider embedded plate technology with the TSM and No-Build Alternatives because of its higher cost. Hybrid-electric vehicles could be part of the TSM and No- Build Alternatives along selected routes where noise and air quality are particularly sensitive issues.

33. *With regards to the annual oil savings the BRT vs. no-build and TSM, the assumption appears to be that all private autos will use similar fuel and achieve similar gas mileage in 2025 as they do in 2000. Is this true?*

    Response: The analysis assumes a worst-case scenario and utilizes the most recent (at the time of analysis) energy consumption factors for U.S. transit systems and roadway networks (published in the Transportation Energy Book by Oak Ridge National Laboratory). The consumption factors (BTUs/VMT) take into consideration the various fuel types used by passenger vehicles (auto, van, light truck). Estimates of improved vehicle energy consumption from 2000 to 2025 are not included in the conversion factors. The analysis identifies the net impact on energy savings as a result of changes in auto and commercial travel in the region, offset by the energy requirements for operation of the BRT or TSM alternatives. This is an approved method utilized and prescribed by the FTA.

34. *The electricity demand for an all-electric in-town BRT is estimated at 11.3 MW. It is difficult to believe that this can be met with the utility's "reserve" capacity. According the Hawaii Energy Strategy (DBEDT, 2000), Oahu is planning to install 605 MW of additional generating capacity before 2017, most of it from coal sources. How can the 11.3 MW come from "reserve" capacity?*

    Response: Coordination with HECO has confirmed that HECO has adequate reserve capacity today without constructing a new power generation unit. The additional generating capacity needed in the future will be needed to serve the growth in population forecast by DBEDT independent of the primary corridor project.

35. *Will substations need to be constructed to feed electricity to the in-town BRT? Where will they be located? How will this affect the need for the Kamoko-Pukele 138 kV power line project proposed for Waahila Ridge?*

Response: Traction power supply substations will be required if the embedded plate technology is used. The physical description of the substations and related impacts are discussed in the FEIS. The Primary Corridor Transportation Project and the Kamoku-Pukele 138 kV power line project are totally unrelated.

36. *The Hawaii Department of Transportation Water has a terrible record when it comes to protecting Hawaii's water. They have been cited numerous times for violating the Clean Water Act. Monitoring and oversight must be done during construction and operation to ensure that BMPs and other measures are fully implemented.*

Response: DTS is not aware of a Hawaii Department of Transportation Water, nor of said department's "terrible record...protecting Hawaii's water."

BMPs, including monitoring and oversight of construction activities, will be conducted as required by the conditions of all permits required under the Clean Water Act. As stated in Section 5.8.5 of the FEIS, it is anticipated that some alterations to bridges or streams may be necessary. Appropriate best management practices will be implemented to ensure adherence to standards set forth under the Clean Water Act. If the project were to involve the discharge of dredged or fill material, a Department of the Army permit would be required and appropriate coordination with the ACOE will be conducted.

37. *I'd like to come out in support for the Bus Rapid Transit Alternative of the Primary Corridor Transportation Plan.*

Response: Comment noted. It states the commenter's preference for an LPA.

38. *What this plan does in a modest and balanced way is help make that shift away from private autos and onto transit. Like providing more efficient and speedier transit options you can help make that shift.*

Response: Comment noted.

39. *What this plan does is get the automobiles out of the way so the buses can run on time and that's a chronic concern from transit users is the unpredictability of transit and they who knows when we can get there, stops at every corner. And if these projections hold, the plan will save nearly 40,000 barrels of oil a year as well.*

Response: Comment noted.

40. *Just two things I'd like to highlight. Number one is the in-town system. And I would encourage implementation of an electric or fuel-cell technology as soon as possible. Other cities in this country and the world are doing it. They're working today. I've wrote about five reasons why this is a necessity. We're the most dependent state in the nation on imported petroleum. It's also much more attractive is zero-emission quiet vehicle. And after sucking bus fumes all day biking around, I can attest to definitely a better way to go.*

Response: Technologies proposed for the Refined LPA include embedded plate technology (EPT) which consists of electric vehicles powered by a wayside traction power delivery system or hybrid-electric propulsion system where energy for the traction power is carried on-board the vehicle. EPT vehicles would emit zero emissions. The hybrid-electric vehicles would be low-emission vehicles because their diesel engines would always be operating at efficient levels.

The FEIS has been prepared to permit either option to be selected later in the project development process by reflecting the "worst case" impacts of the two technologies. The FEIS does not preclude an alternative technology such as fuel cells to be considered in the future. Although hybrid-electric technology has been chosen for the initial fleet of In-Town BRT vehicles, in 2008 when a decision on the long-term technology is made, other technologies including EPT and fuel cells will be considered.

41. *And the second thing I want to bring up is the in-town transit way. Folks in redevelopment and places that we want to do some more growth so we can produce the pressure on outlying areas.*

Response: The In-Town BRT will help provide the opportunity to focus development in the Primary Urban Center (PUC).

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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Enhancing Waikiki since 1967

October 5, 2000

TO: The Honorable Duke Bainum, Chair
City Council Transportation Committee

RE: **Special Transportation Committee Meeting** *(Oct. 5, 2000)*
Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) for the Primary Corridor Transportation Project

Chair Bainum, members of the Committee:

I am Rick Egged, President of the Waikiki Improvement Association, representing 250 businesses and individuals in Waikiki. WIA continues to support the City's plans for improving transportation connections island-wide. Indeed, our traffic is getting worse every day. Doing nothing is not an option. The current proposals were designed with a lot of community input, including WIA. Our Board of Directors approved the proposal in concept, including a high capacity transit system for Waikiki, and has continued to follow its development. According to the MIS/DEIS just completed, the CityTram will help achieve our overall goal of improving traffic flow and access into Waikiki at a cost that appears to be reasonable to taxpayers. It also improves connections for Waikiki employees getting to and from work. As long as ride schedules can be aligned with Waikiki's 24-hour-a-day work schedule, the new system should offer a fast, efficient choice for the Waikiki workforce. An independent cost-benefit and economic impact analysis has measured the benefits, too, in areas such as travel time and saved operating and parking costs at a benefit/cost ratio of 1.24.

However, we do have concerns about the dedicated transit lane in certain portions of Waikiki where Kalakaua Avenue and Kalia Road are already narrow. We hope to work with the City on alignment and use of the lanes.

WAIKIKI IMPROVEMENT ASSOCIATION

Rick Egged
President

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05460R

November 13, 2002

Mr. Rick Egged, President
Waikiki Improvement Association
2255 Kuhio Avenue, Suite 760
Honolulu, Hawaii 96815

Dear Mr. Egged:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your October 5, 2000 letter, your November 14, 2000 letter, and your oral testimony at the November 14, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS. Part B responds to your oral testimony at the April 20, 2002 public hearing and your May 7, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *According to the MIS/DEIS just completed, the CityTram will help achieve our overall goal of improving traffic flow and access into Waikiki at a cost that appears to be reasonable to taxpayers. It also improves connections for Waikiki employees getting to and from work. As long as ride schedules can be aligned with Waikiki's 24-hour-a-day work schedule, the new system should offer a fast, efficient choice for the Waikiki workforce.*

   Response: Comment noted, the project is in agreement with this statement.

2. *However, we do have concerns about the dedicated transit lane in certain portions of Waikiki where Kalakaua Avenue and Kalia Road are already narrow. We hope to work with the City on alignment and use of the lanes.*

   Response: In the public outreach for the Project, DTS established a Working Group (WG) for the Waikiki area that included representatives from the hotels, retail and service industries, commercial passenger and freight carriers, and residents. One topic of discussion was the proposed BRT lane configurations for the various segments in Waikiki. The lanes on Kalakaua Avenue and Kalia Road have been modified in the Refined LPA based on the Waikiki WG input so that they are shared with private buses and right-turning vehicles.

3. *WIA continues to support the City's plans for improving transportation connections island-wide. Our Board of Directors approved the proposal in concept, including a high capacity transit system for Waikiki, and has continued to follow its development. According to the MIS/DEIS just completed, the City Tram will help achieve our overall goal of improving traffic flow and access into Waikiki at a cost that appears to be reasonable to taxpayers.*

   Response: Comment noted. It is a statement of the commenter's preference for an LPA.

4. *We do, however, have concerns about the dedicated lane affecting traffic flow and accessibility along Kalakaua Avenue, where the traffic balance is delicate and uses are many. Determining its configuration is important in servicing all of Waikiki's customers – businesses, visitors and residents. We hope to work with the City on the alignment and use of this important corridor.*

   Response: See response to comment #2.

Part B – SDEIS Comments

5. *I'm the president of the Waikiki Improvement Association. We're an organization made up of businesses and landowners in Waikiki.*

   Response: No response required.

6. *And certainly, we support a system that increases service to Waikiki, a system that will help our employees who come in and out of Waikiki every day, including myself, get to our jobs in a faster and more efficient way.*

   Response: Comment noted. It is a statement of support for the Refined LPA.

7. *And what we're also looking at is a way of enhancing Waikiki as a visitor destination. And the things that – some of the things that we find very attractive about this system are reducing the total number of buses – City buses that traverse Waikiki, being able to replace a lot of those buses that are there now with a much more efficient system, and with the current diesel buses, which, of course, are noisy and polluting, with a much more modern system of buses which would be quieter and certainly create less fumes. Just the fact that we just instituted a business improvement district in Waikiki – and I didn't realize, before we started cleaning the sidewalks, that sidewalks weren't grey. Certainly, all of the pollution that comes from all of the traffic in Waikiki is a cumulative thing. And whether you live in one of the condominiums in Waikiki, just cleaning your lanai from all of the carbon that comes from the exhaust systems can get to be a problem. So, certainly, to be able to take a step forward into the future and create a system that is more environmentally friendly is important to all of us.*

   Response: Comment noted. DTS agrees with this comment, nor does it require any changes to the EIS.

8. *And when it comes down to it, when we're looking at Waikiki, Waikiki is not just another community. Waikiki is an important economic center for the island. And for us, we're looking at a pedestrian environment. The streets in Waikiki, the sidewalks in Waikiki, are the busiest sidewalks in the state. It's an important urban center. We have to be able .to create an environment that is friendly to those pedestrians.*

   Response: This comment is consistent with findings in the FEIS.

9. *And to do so by creating a more efficient transportation system that will take buses off the road, allow us to expand sidewalks and increase landscaping in Waikiki, is something that will benefit certainly all of the residents, as well as the visitors in Waikiki, and really support the economic base for the entire community.*

Response: This comment is consistent with findings in the FEIS.

10. *I've listened to all the concerns that have been said here today. And, of course, the BRT is not a perfect solution. I don't know if there ever is a perfect solution. Every time I've heard suggestions made, there are always a lot of reasons why something won't work.*

Response: Comment noted.

11. *I have to say that I really appreciate all the effort by the Department of Transportation Services to work with the community. I feel that there's certainly been enough notification, that if you didn't know this process was going on, then you weren't paying attention. And we have found the process to be very iterative and responsive. And I enjoy our continuing effort to work on making the system work.*

Response: DTS appreciates your support of its public involvement efforts and looks forward to working with the Waikiki Improvement Association in the future.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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Chapter 7.0

Comments and Responses
Businesses

WRITTEN TESTIMONY OF DWIGHT YOSHIMURA
BEFORE THE HONOLULU CITY COUNCIL TRANSPORTATION COMMITTEE
IN SUPPORT OF THE BUS RAPID TRANSIT (BRT) PROGRAM
OCTOBER 26, 2000

To Chairman Duke Bainum and other members of the Transportation Committee:

I am writing in support of the proposed Bus Rapid Transit (BRT) program as our locally preferred alternative to improve our existing rapid transit system. As general manager of Ala Moana Center, a major connecting point for Honolulu's bus system, I can attest to the need for improvements to address the increasing demands being made on our roadways and existing public transportation system. Of the three alternatives under consideration, we believe the BRT program, with its high-capacity in-town carriers, offers an environmentally friendly and attractive alternative for drivers.

The one area of concern for Ala Moana Center would be the designation of dedicated lanes for this system along Kapiolani and Ala Moana Boulevard, as both thoroughfares are primary arteries and direct feeder lines to and from the shopping center. We would therefore request the Council also consider a semi-dedicated use, which would allow vehicular traffic onto the lanes at those times when they are not in use by the BRT vehicles, as is now done in some U.S. mainland cities. We believe this would facilitate even greater traffic flow along those roadways.

In conjunction with our support of the BRT system, we also support and urge the City to address modifications to the Atkinson/Kapiolani intersection (as was earlier proposed by the City), as well as any other needed improvements to will help the overall traffic flow in the Ala Moana area.

Thank you for your time and consideration of this testimony.

Dwight Yoshimura
General Manager, Ala Moana Center

Address: 1585 Kapiolani Blvd., #800 • Honolulu, HI 96814
Phone: (808) 946-2811

(submitted via facsimile: 10/24/00)

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD10/00-05178R
TPD11/00-05327R

Mr. Dwight Yoshimura
General Manager, Ala Moana Center
1585 Kapiolani Boulevard, #800
Honolulu, Hawaii 96814

Dear Mr. Yoshimura:

Subject: Primary Corridor Transportation Project

This is in response to your October 26, 2000 fax regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I am writing in support of the proposed Bus Rapid Transit (BRT) program as our locally preferred alternative to improve our existing rapid transit system. As general manager of Ala Moana Center, a major connecting point for Honolulu's bus system, I can attest to the need for improvements to address the increasing demands being made on our roadways and existing public transportation system.*

   Response: Comment noted.

2. *The one area of concern for Ala Moana Center would be the designation of dedicated lanes for this system along Kapiolani and Ala Moana Boulevard, as both thoroughfares are primary arteries and direct feeder lines to and from the shopping center. We would therefore request the Council also consider a semi-dedicated use, which would allow vehicular traffic onto the lanes at those times when they are not in use by the BRT vehicles, as is now done in some U.S. mainland cities. We believe this would facilitate even greater traffic flow along those roadways.*

   Response: The exclusive and semi-exclusive BRT lanes on both Ala Moana Boulevard and Kapiolani Boulevard are needed by BRT vehicles to avoid congestion which occurs during much of the day on these arterials. The lanes on Ala Moana Boulevard will be shared with private buses and trolleys. The Koko Head bound lane will also be available for right-turning vehicles. There will not be any need to allow other vehicles to use these lanes during other times of the day because traffic volumes will be less during off-peak times on both streets.

3. *In conjunction with our support of the BRT system, we also support and urge the City to address modifications to the Atkinson/Kapiolani intersection (as was earlier proposed by the City), as well as any other needed improvements to will help the overall traffic flow in the Ala Moana area.*

   Response: The Atkinson Drive/Kapiolani Boulevard intersection will be improved by providing an additional left-turn lane from Ewa-bound Kapiolani at Atkinson Drive.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

April 19, 2002

Ms. Cheryl Soon
Director
Department of Transportation Services
City & County of Honolulu
711 Kapiolani Boulevard
Honolulu, HI 96813

Subject: Honolulu – Bus Rapid Transit System – In Support Of

Dear Ms. Soon:

This letter is in support of the Bus Transit System for the following reasons:

Personal Time Savings

Especially for those who work and need to commute between home and work, the quality of life for them and their families is very dependent on a good transportation system. Each hour saved each day may be a quality hour to be shared with their children. An hour each day which may make the difference in the development of these children into good individuals and good citizens.

Air Quality

Diesel fuel combustion impacts our air quality. Significant reduction of this pollution certainly improves the environment for good health for all of us and increases the appreciation of our State by the many who visit here and make our lives here possible.

Respectfully,

Stanley T. Yasumoto, AIA
Principal

STY/dha

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00527

November 13, 2002

Mr. Stanley T. Yasumoto
Principal
Architects Hawaii, Ltd.
Pacific Tower, Suite 300
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Yasumoto:

Subject: Primary Corridor Transportation Project

This is in response to your April 19, 2002 letter regarding your comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *Personal Time Savings - Especially for those who work and need to commute between home and work, the quality of life for them and their families is very dependent on a good transportation system. Each hour saved each day may be a quality hour to be shared with their children. An hour each day which may make the difference in the development of these children into good individuals and good citizens.*

   Response: Thank you for supporting the project.

2. *Air Quality - Diesel fuel combustion impacts our air quality. Significant reduction of this pollution certainly improves the environment for good health for all of us and increases the appreciation of our State by the many who visit here and make our lives here possible.*

   Response: We agree and although Honolulu's air quality is within the State and federal air quality criteria, the project will help maintain air quality below these criteria.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Charley's Taxi
LIMOUSINES VANS & TOURS
The way to go.
www.charleystaxi.com

MAY ■ 9 2002

April 27, 2002

Ms. Cheryl D. Soon, Director
DEPARTMENT OF TRANSPORTATION SERVICES
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Ms. Genevieve Salmonson, Director
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
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Ms. Donna Turchie
FEDERAL TRANSIT ADMINISTRATION
201 Mission Street, Suite 2210
San Francisco, California 94105-1839

Comments of Charley's Taxi Radio Dispatch re
Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Dear Ladies:

We definitely agree about the urgent need for transportation and public transit improvements. On the other hand, we cannot blindly support a radical, ill-conceived project such as the in-town portion of this proposed BRT.

WHO NEEDS BRT?

To justify this project on the pretext of "if we don't, we'll have Gridlock" is *shibai!* In the first place, traffic congestion today is worse than it should be.

A few examples:

- Road and highway improvements have long been been ignored so that our road miles per vehicle, and road miles per capita are the lowest in the nation.
- In West and Central Oahu, not enough roads and alternative access roads have been built to keep up with new housing developments.

680 Ala Moana Blvd., Suite 303, Honolulu, Hawaii 96813-5409 Ph: (808)531-2333 Fax: (808) 533-1161 email: info@charleystaxi.com

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- Improvements to bottlenecks are ignored for one excuse or another.
  (a) Why not widen and improve H-1? "The bridges don't meet federal safety standards, it will cost us more to rebuild the bridges to comply."
  (b) Why not extend the makai freeway (to Pacific Street) or double-deck Dillingham perhaps? "Out of the question, double-decking is unacceptable!"
- Streets have been sold or closed, or narrowed, and more are being turned into hazardous round-abouts.
- Waikiki's one-way street system has shrunk the available use of existing road capacity, exacerbating congestion. Suggestions to narrow side street openings in Waikiki, to wind up as semi-private courtyards, are raised from time to time.
- Reversible contraflow lanes like Kapiolani, possibly on Dillingham as well as King streets (among others), could increase peak traffic carrying capacity.
- Unsynchronized traffic lights bunch up traffic, leaving many empty blocks in-between gaps.
- Not enough "busbays" (bus pullouts) are provided which could free up curb lanes all over town, for smoother flowing curb lane traffic, while providing bus drivers more time and space to load and unload bus passengers.
- The state DOT's planned widening of Ala Moana at the entrance to Kalakaua was stopped at the last minute at the city's insistence. That extra laneage would have shortened traffic backed up to Atkinson or Piikoi. This was an opportunity to have the extra lane plus the pedestrian promenade, as space is available.
- Hundreds of tour buses and vans — enough to more than double the city's fleet — sit idle during peak traffic. These assets are available for immediate use to fill the public's demand for more buses in remote, outerlying neighborhoods. People drive because there is not enough express buses. Riders wait in vain for buses that don't show up or show up late, thus unreliable for workers needing to get to work on time.
- Restrictive laws prevent the innovation of jitney and shared ride services to supplement services to neighborhoods and for the low income, unemployed, elderly and disabled. The city simply focuses on the East-West corridor, ignoring services to the Mauka-Makai neighborhoods where people actually need to go.
- Parking and loading areas, and discounted parking fees, are needed for private drivers to form carpools with passengers going in the same direction.

Secondly, "Gridlock" is being artificially expedited, purposely contrived and exploited to give the city's Tram a monopoly of the roadways. BRT will doom private motorists and their passengers to intolerable traffic congestion — permanently inconveniencing <u>all</u> except the riders in TheTram system.

CONTRADICTIONS & INCONSISTENCIES

On Kalakaua Avenue, space and time allocated for delivery truckers and tour drivers in motorcoaches, minibus, vans and limousines are greatly diminished today compared to two years ago. Daytime loading is barred from 9 A.m. to 10 P.m. The city's DTS directs the police (HPD) to issue parking tickets to truckers in Waikiki, causing losses in fines and time in traffic court.

Yet, the city would condemn and bar the public's access to certain lanes on major roads in the urban Honolulu core on a massive scale — part of which is to take over a whole lane (or two) for the entire Waikiki corridor for 21 hours a day. How can there not be space enough <u>now</u> to accommodate the current needs of the commercial transportation drivers, and yet have more space and time for the BRT?

The city contends it can afford to operate BRT 21 hours a day, every 3-5 minute.
How, then, is it that the city isn't giving even half or one third that kind of coverage <u>now</u> to the people of West, Central, Leeward and Windward Oahu, even in town?

The city proposes this BRT system to start and concentrate on the Waikiki end.
But, if the intent is to serve resident taxpayers (and not tourists), why not focus on where the need is greatest, in West, Central and Leeward Oahu, where the public needs more bus seats <u>now</u>.

This BRT is predicted to boost ridership, even though riders on regular bus routes will sit in the same worsened traffic as the rest of us.
How can the city count on increasing patronage by having dis-satisfied customers? What is the impact also on the Handi-van services, services for the people who need to go for medical treatments and in emergencies?

It is misleading to call a "tram" a "bus" as in BRT ("Bus Rapid Transit").
A bus doesn't need to run on a track, and a bus can overtake stalled vehicles. This proposed Tramway is fixed, inflexible, permanently unalterable (until you pull up the tracks), and stops all the cars behind any broke down tram ahead. A tram is impractical, as more efficient vehicles are available. Claims about time savings by tripping the traffic signals are overstated as pedestrians take time to cross the streets. Even now, the walk signals turn off after only 2-3 seconds, making streets pedestrian un-friendly.

Re breakdowns: A frequent sight to see in San Francisco is riders pouring out of numerous electric trolleys stopped behind a broken down trolley ahead. *Re exclusive, dedicated lanes:* When the Tram broke down in Denver's shopping district, we couldn't get a taxi as all other vehicles are banned from the street.

CAN TAXPAYERS AFFORD IT?

The capital cost is the cheapest part of the equation. The biggest burden for property tax payers is the cost to operate and maintain this tram system, adding significantly to the city's bloated budget. We question the city's claim that public subsidy of the city's transit system will not necessitate further tax increases.

Budget constraints will predictably endanger the integrity of the existing bus system:
- to cut back on schedules (shorter hours, longer waits and delays for customers)
- cut down on routes (less places served)

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- job layoffs and/or
- no pay increases for TheBus and Hand-van employees).

ANTI-BUSINESS STRATEGY

Businesses are fast becoming the Endangered Species in Hawaii! The approach of this project's DEIS and SDEIS further demonstrate government's anti-business climate in Hawaii. There is no consideration of the potential jobs to be lost, or of the customers inconvenienced, the services to be degraded, and the private sector to be displaced. Transportation is not about one mode (tram or bus). The public roads and highways are built to promote mobility for diverse purposes and uses, whereas the BRT in-town is intended to provide public transit with a monopoly of the major roads in the urban core.

Why is there is no consideration of the Business Economic Impact of BRT on businesses:

- on property owners and tenants
- on minority and disadvantaged businesses
- on stores and restaurants,
- on patients, doctors and medical services
- on schools and special education services
- on riders of private commercial vehicles, or goods and deliveries by truckers
- on the convention clientele, on tourists in general, on the businesses who sell tour attractions and activities
- on everyone else who uses the streets and roads?

Displacement of private commercial operators. Why is city allowed to ignore the impacts upon other uses:

- some customers who are injured or sick and going to the doctor and have to pay more waiting time because the city takes away traffic lanes and congests up the streets?
- slow-moving elderly and handicapped customers?
- taxi drivers having to unload infant strollers and grocery bags?
- truckers making deliveries having to truck 2 blocks going and coming to their customers?
- melting ice cream belonging to the grocery store customer stuck in traffic due to bumper to bumper traffic?
- taxi riders having to pay more as the meter keeps on ticking in traffic congestion.
- Degradation of services to taxi customers as it will take longer for the driver to arrive at the destination due to traffic congestion?
- taxi drivers having to work longer hours to make the same number of trips as now, because they will be sitting in traffic?
- why should our customers be inconvenienced and pay more, over the interests of bus riders?
- why is the city going to make it so inconvenient and expensive to ride our non-government subsidized taxis?

- why are the interests of tram riders having priority over our taxi customers?
- the cumulative effect of traffic congestion, here, there and everywhere, at or near where the BRT system runs are definitely going to degrade our services unacceptably. The taxi business is time-sensitive, in other words, most customer call at the last minute, just before they need a ride. Our taxis go where and when most of the city buses don't go. But our drivers will be stuck in intolerable traffic congestion, a half-hour longer on Kapiolani, 20 minutes longer on Nimitz, 20 minutes more wherever the Tram goes near. So, our drivers will have to work more hours as the number of trips per hour falls, plus more stress (individual), and wear and tear (cars). BRT doesn't even have to take our customers, the drivers will quit anyway in frustration!
- why is the government pouring government funds to displace private sector transportation companies, by degrading our ability to service our customers at existing levels, so as to shift our customers into this BRT? Is it fair or legal for the monopoly government bus service to drive private small businesses out of business? Giving preference to the BRT over taxi riders is unfair competition, especially since taxi riders' fares are non-subsidized
- is the city violating the federal transportation department's policy to have Private Sector Participation in the formulation of an improved transit system, when in fact we have been ostracized and excluded as much as possible in the work planning details? Other transportation operators have told me that they were told not to attend BRT meetings, not to express objections to the BRT at OMPO policy meetings, and also that the Waikiki Working Group was "by invitation only". As a major taxi company in Honolulu, our company has been specifically ostracized by the city and its consultants, except in these very superficial public meetings. We are specifically excluded from working groups. I also attended a Waikiki Livable Community meeting, where we were told that BRT is a "given", not up for discussion. I wrote comments and never got even a thank you response.
- why should the 92% of Oahu residents who don't ride the system pay for the addition of nice new trams for tourists?
- How much longer will it take for guests to wait for their pick-ups or for their cars at Moana and Surfrider, if it already takes 30-45 minutes now? What is the impact of the BRT in Waikiki upon these and other hotels and restaurants and stores?

SIGNIFICANT, DIVERSE, IMMEDIATE SOLUTIONS ARE AVAILABLE

- Many other more worthy projects are being subordinated or ignored, due to the significant expense of the BRT project. We need more streets and alternative access roads to keep up with the increased development of homes in West Oahu.

- Supplement the city-owned fleet with available tour busses and vans, to double carrying capacity. Honolulu is unique to have one of our nation's biggest supply of buses per capita, except for NYC and Washington DC. This available asset (of tour buses) is being wasted, sitting idle during morning peak hours (before morning tours).

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- Use reversible HOV contraflow lanes for use by all hovs, not only the transit buses.
- The estimated 30% of uninsured motorists should be taken off the streets. The city's licensing division knows who they are, but nothing is being done, so we all have to pay premiums for uninsured motorists insurance due to the bureaucratic failures.
- Use incentives to encourage private carpools, by discounted parking, priority use of parking places to pick-up other riders in car pools. (Private carpools save taxpayers the inefficient expense of hiring more bus drivers and mechanics and buying and garaging more buses.)
- Clear off accidents faster to re-open roads and highways. Set a maximum so that the roads are closed for hours at a time creating security problems and inconvenience and loss for everyone stuck in the traffic.
- Put in more Busbays so that the buses can pull out of the curb lane to load and unload bus riders. This would immediately add carrying capacity to existing streets.

The proposed BRT in-town is unacceptable and impractical and offers no solutions to our island traffic and transportation needs. However, it will take a change in public policy to change the practice of furthering the monopoly transit operator, to instead use and manage the island's available assets and resources more efficiently, to have meaningful transportation improvements — for the general public interest.

We're willing to help.

Sincerely,

Dale Evans, President

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPDS/02-01876R

November 13, 2002

Ms. Dale Evans
Charley's Taxi
680 Ala Moana Boulevard, Suite 303
Honolulu, Hawaii 96813

Dear Ms. Evans:

Subject: Primary Corridor Transportation Project

This responds to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your oral testimony at the October 5, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS. Part B responds to your oral testimony at the SDEIS April 20, 2002 Public Hearing and your April 27, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *Charley's Taxi wants to see improvement in transportation. And we would also like to see that the State and City work together for solutions. Our concern is about congestion. We feel that traffic in Waikiki and elsewhere is terrible and that it will even get worse with the proposal.*

   Response: It is not the BRT that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

2. *We like some of the things that the private transportation industry suggested which was the zipper lanes, the ___ buses, the contraflow lane. But, we really feel that the highway on and off ramps need to be addressed and how you handle transportation.*

   Response: The Refined LPA includes a Regional BRT component that extends from Kapolei to Middle Street and includes the extension of the existing A.M. Zipper Lane, and addition of a P.M. Zipper Lane. In addition, BRT priority improvements will be made to existing or proposed ramps at Kapolei, North-South Road, and Middle Street to facilitate movements from H-1 to the transit centers at these locations. In addition, an exclusive BRT ramp will be constructed at Luapele Drive to serve the Aloha Stadium Transit Center. These ramp improvements are an integral part of making the BRT a fast reliable alternative to the private automobile. The ramp improvements will allow the BRT vehicles easier access to the zipper and express lanes.

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3. *The narrowing of Kalakaua Avenue has really made traffic unbearable. It's terrible. It has affected the consumer. They're paying more in terms of higher fares. They're paying more in terms of time stuck in traffic. It's costing us more because it's harder for us to cover calls. And ours is a demand-response [business].*

   Response: The BRT will share the curb lane on Kalakaua Avenue with right turning vehicles and with private buses.

4. *We also think that the bus system should look at cross-hatches (?) like in San Francisco or other places where it's going this way instead of just going East/West. So, we think that a broader perspective is necessary.*

   Response: The In-Town BRT is only one element of the transit plan for the Primary Urban Center. The plan also includes conversion of the bus system to a hub-and-spoke network. The hub-and-spoke network will consist of new local circulator routes, as well as continuation of many existing line haul and express routes. The goal is to have an integrated network of transit services that provide convenient and cost-effective options for potential users.

5. *We're concerned about taking one of the lanes on Kalakaua Avenue which is going to worsen it there. We know that they want to widen the sidewalks on Kuhio and therefore that's probably going to take one lane. Then you're about taking two lanes or one lane for this rail system. And we think that it's going to really cause a lot of misery.*

   Response: Since publication of the MIS/DEIS, the City has worked with the Waikiki Working Group and other interested parties in the Kalakaua and Kuhio Avenue corridors to redesign the BRT in Waikiki to minimize impacts on vehicular traffic on both streets and to maximize opportunities for widening sidewalks on Kuhio Avenue. Changes include allowing tour buses and right turning vehicles to share the BRT lane on Kalakaua and Kuhio Avenues, and providing for a minimum of a combined eight feet of sidewalk widening on one or both sides of Kuhio Avenue. As shown in FEIS Table 4.2-7, the impacts of the BRT on traffic congestion in Waikiki will not be significant.

6. *So, maybe what you folks should consider is if you're gonna have this, whatever it is, maybe it should go around. Go down Kapiolani and come up Kuhio so that you're not going to take the lane on Kalakaua Avenue. And also it gives a chance for people to get the Iolani School, Kaimuki School, that corridor is terribly congested. So, if they're going to take away the golf course, maybe they should be looking at how to realign a route that could go in a circle instead of going in a circle in Waikiki.*

   Response: Prior to selection of Kalakaua and Kuhio Avenues as the Locally Preferred Alternative route in Waikiki, DTS analyzed a variety of alternate routes including: (1) two-direction service on Kuhio Avenue; (2) a Kuhio Avenue-Ala Wai Boulevard BRT couplet; (3) a Kalakaua Avenue-Ala Wai Boulevard BRT couplet; and (4) turning back BRT service at or near Saratoga Road and Kalakaua Avenue. None of these alternatives provide anywhere as good a service to residents and employees in central Waikiki as the Refined LPA route.

7. *We have a lot of doubts about a system that is untested. We believe that the buses is a better way to go. It's more flexible. And I think that you folks should be looking at what the consumer, the people that are not only the bus riders, but... And the bus riders that are the employees and the visitors. But the other people because the bus system really addresses about 8% of the total*

usage. So, the rest of the 92% is not being addressed. That's not going to solve a transportation problem. We need to look at the cars, the people that are using the other modes of transportation and how are we going to address those needs. That's what we would call a real transportation solution.

Response: The BRT is not the only transportation improvement proposed. It is only one element in a comprehensive set of multi-modal improvements planned for in the Oahu Regional Transportation Plan (TOP 2025).

Part B – SDEIS Comments

8. *I'm president of Cheney's Taxi. We positively support transportation and public transit improvements. This is not to say, however, that we must blindly support a dubious, ill-conceived project, such as the in-town portion of this BRT.*

   Response: Comment noted.

9. *Significant, immediate, diverse, multi-mode solutions are available. By using existing available resources better, practical transportation improvements can be made. But it takes a change in attitude. It takes a change in your approach. You have to get out of this mindset of being a player, a competitor, and become a manager to manage the available resources and assets more efficiently.*

   Response: Comment noted.

10. *But first, I would like to talk about the contrived scare tactics that I hear the transportation officials are using. Traffic congestion is being artificially created, purposely manipulated, to government-monopolize the roadways.*

    Response: Comment noted.

11. *The BRT In-Town will doom private motorists and their passengers to worse traffic congestion permanently for the sake of the tram riders. BRT is a problem, not a solution*

    Response: See response to comment #1.

12. *Businesses are fast becoming the endangered species in Hawaii. The approach of this project's DEIS and SDEIS demonstrate government's anti-business climate in Hawaii.*

    Response: Comment noted. The issue of whether government is pro- or anti-business is beyond the scope of an EIS.

13. *Why is there no consideration of the business economic impacts of BRT on small businesses, on property owners and tenants, on minority and disadvantaged businesses, on riders of private commercial vehicles, of goods and deliveries by truckers, on the convention clientele, on the tourists in general, on the businesses who sell tour attractions and activities, on everyone else who use s the streets and roads? Why is the tram more important over everything and anyone else's use of the government roads?*

Response: Business impacts of the Refined LPA are addressed in various sections of the DEIS, SDEIS and FEIS, including Sections 5.1, 5.2, 5.3 and 5.12.11. The only business displacements required are at the proposed Middle Street and Iwilei Transit Centers. As disclosed in Section 5.2, fair market compensation and relocation assistance will be provided to affected establishments. Potential impacts and mitigation for loading spaces for commercial vehicles are addressed in Section 4.4.4 of both the MIS/DEIS and SDEIS and Section 4.5.4 in the FEIS. There are only a few locations where loading zones will need to be relocated. Alternate loading options and turnout bays will be provided wherever loading zones are affected by BRT operations. Community-based planning will continue to be conducted during the design and construction phases, so that adverse impacts to neighborhoods and businesses are minimized.

Because there is a limited amount of road space in the PUC, priority is being given to accommodating the flow of people, not vehicles. The BRT, local buses, private buses and trolleys are being given preferential treatment in the Refined LPA, since they make more efficient use of the roadway system than do private autos.

14. *BRT will effectively close down Dillingham, perhaps to become a transit mall ultimately, just like Hotel Street.*

Response: There are no plans to turn Dillingham Boulevard into a transit mall. The conversion of two lanes on Dillingham Boulevard to exclusive BRT use will benefit far more people than it will negatively affect. The remaining lanes will be configured to still permit access to all of the businesses and residences on Dillingham, and there will be enough people diverted out of their cars onto transit to more than offset the reduction in capacity for autos.

15. *What's the long-term effect of this on businesses on Dillingham and the residents in the area.*

Response: As described in Section 5.1 of the FEIS, some redevelopment along Dillingham Boulevard is anticipated in response to the increased pedestrian activities associated with the BRT stops.

16. *So, too, what is the effect on motorists who will encounter more congestion on H-1, Nimitz, King and all the streets along and near the route alignment?*

Response: There will be enough people diverted out of their cars onto transit with the Refined LPA to make traffic conditions no worse and in fact somewhat better than with the No-Build or TSM Alternatives on Dillingham Boulevard, H-1, Nimitz Highway and N. King Street.

17. *But I want to close by saying that it's misleading to call a tram a bus, as in Bus Rapid Transit. A bus doesn't need to run on a track, and a bus can overtake stalled vehicles. This proposed tram is fixed, inflexible, permanently unalterable, and stops all the cars around and behind any broke down tram ahead. A tram is impractical as more efficient vehicles are available.*

Response: BRT vehicles regardless of the technology ultimately chosen will indeed be buses. Even the embedded plate technology since it has battery back-up will not be fixed to a track, and will be able to go around stalled vehicles.

18. *We definitely agree about the urgent need for transportation and public transit improvements. On the other hand, we cannot blindly support a radical, ill-conceived project such as the in-town portion of this proposed BRT.*

Response: Comment noted.

19. *WHO NEEDS BRT?*

Response: Comment noted.

20. *To justify this project on the pretext of "if we don't, we'll have Gridlock" is shibell in the first place, traffic congestion today is worse than it should be.*

Response: Comment noted.

21. *Road and highway improvements have long been ignored so that our road miles per vehicle, and road miles per capita are the lowest in the nation.*

Response: The OMPO's Transportation for Oahu Plan, TOP 2025 presents the transportation projects selected for federal funding over the next 20 years. In addition, the City's Capital Improvement Program (CIP) includes numerous roadway improvements.

22. *In West and Central Oahu, not enough roads and alternative access roads have been built to keep up with the new housing developments.*

Response: The rapid development in West and Central Oahu has outpaced the construction of new roadways. Both the City and State governments have initiated programs to accelerate the construction of roadways. An example is the Impact Fee Ordinance now being considered by the Honolulu City Council. This ordinance would attach a transportation impact fee to each home or condominium unit constructed. The collected impact fees would help to fund new roadway construction in the area. The proposed BRT system can only help as these roadway projects will not be completed overnight and there will still be need for an alternative to private autos for transportation.

23. *Improvements to bottlenecks are ignored for one excuse or another.*

a) Why not widen and improve H-1? "The bridges don't meet federal safety standards, it will cost us more to rebuild the bridges to comply."

b) Why not extend the makai freeway (to Pacific Street) or double-deck Dillingham perhaps? "Out of the question, double-decking is unacceptable!"

Response: The State DOT does have plans for widening H-1 in selected bottleneck locations. They also have plans for increasing the capacity of Nimitz Highway from Keehi Interchange to Pacific Street. The OMPOs TOP 2025 plan includes other projects (such as the Kalihi Channel and Fort Armstrong tunnels) that will increase vehicle capacity in the primary corridor.

24. *Streets have been sold or closed, or narrowed, and more are being turned into hazardous round-abouts.*

Response: This is a comment directed to past City actions unrelated to the EIS.

25. *Waikiki's one-way street system has shrunk the available use of existing road capacity, exacerbating congestion. Suggestions to narrow side street openings in Waikiki, to wind up as semi-private courtyards, are raised from time to time.*

Response: The one-way streets and resulting semi-private courtyards are unrelated to the EIS scope.

26. *Reversible contraflow lanes like Kapiolani, possibly on Dillingham as well as King streets (among others), could increase peak traffic carrying capacity.*

Response: While reversible contra-flow lanes, whether they be for HOV or general traffic, could improve traffic flow during peak periods, it would require the elimination of left-turns during the hours of contra-flow operation. This could have a detrimental impact to the many small businesses along Dillingham Boulevard. The benefits to BRT/transit riders would be significantly less than they would be with the Refined LPA, since travel speeds would be 40-50 percent slower.

27. *Unsynchronized traffic lights bunch up traffic leaving many empty blocks in-between gaps.*

Response: The City has a state of the art traffic management center. It also has an ongoing traffic signal optimization program. Given the large number of traffic signals in Honolulu, it will take time to optimize all of the signals, but the process has been initiated and the public will see the benefits of the program in the near future.

28. *Not enough "busbays" (bus pullouts) are provided which could free up curb lanes all over town, for smoother flowing curb lane traffic, while providing bus drivers more time and space to load and unload bus passengers.*

Response: Bus turnouts (bus bays) are proposed along sections of Dillingham Boulevard and Kuhio Avenue in the Refined LPA.

29. *The state DOT's planned widening of Ala Moana at the entrance to Kalakaua was stopped at the last minute at the city's insistence. That extra laneage would have shortened traffic backed up to Atkinson or Piikoi. This was an opportunity to have the extra lane plus the pedestrian promenade, as space is available.*

Response: The current plan for the Refined LPA includes widening of Ala Moana Boulevard between Ala Wai Canal (just Diamond Head of Atkinson Drive) and Kalia Road. For most of this segment, the curb lanes will be designated for BRT, City bus, tour bus, and right-turning vehicles. An additional three through lanes will be provided in each direction through the Kalia Road/Ala Moana Boulevard intersection. Mauka of Kalia Road, Ala Moana Boulevard will return to its existing four-lane cross-section.

30. *Hundreds of tour buses and vans – enough to more than double the city's fleet – sit idle during peak traffic. These assets are available for immediate use to fill the public's demand for more buses in remote, outlying neighborhoods. People drive because there is not enough express buses. Riders wait in vain for buses that don't show up or show up late, thus unreliable for workers needing to get to work on time.*

Response: The Leeward Oahu Transportation Management Association (LOTMA) currently provides subscription express bus service from Central Oahu using available tour buses. TheBus formerly tried using idle tour buses to augment their bus fleet for express bus use. However, the program ended when it was found that the P.M. peak hour express bus operation clashed with the busy times for tour bus operations. The Refined LPA will significantly increase transit service from outlying neighborhoods through its Regional BRT component. The Regional BRT in conjunction with the "hub and spoke" bus route refinements will interface with the In-Town BRT system to provide expanded transit service throughout the primary transportation corridor.

31. *Restrictive laws prevent the innovation of jitney and shared ride services to supplement services to neighborhoods and for the low income, unemployed, elderly and disabled. The city simply focuses on the East-West corridor, ignoring services to the Mauka-Makai neighborhoods where people actually need to go.*

Response: The Refined LPA includes an entire system of circulator routes as well as the BRT. Theses circulator routes will serve mauka-makai travel needs. Some of these circulator routes may be operated as jitney or shared ride services.

32. *Parking and loading areas, and discounted parking fees, are needed for private drivers to form carpools with passengers going in the same direction*

Response: Thank you for the suggestion. Such a plan involving carpooling is beyond the scope of this project. This project aims to reduce personal vehicle use by providing a transit alternative, a public policy identified and approved by the City Council. Carpooling incentive programs, in addition to those in existence today (such as Vanpool), would have to be implemented through policy decisions.

33. *Secondly, "Gridlock" is being artificially expedited, purposely contrived and exploited to give the city's Tram a monopoly of the roadways. BRT will doom private motorists and their passengers to intolerable traffic congestion – permanently inconveniencing all except the riders in TheTram system.*

Response: As pointed out in Chapter 4 of the FEIS, it is not the conversion of lanes that will create congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

34. *On Kalakaua Avenue, space and time allocated for delivery truckers and tour drivers in motor coaches, minibus, vans and limousines are greatly diminished today compared to two years ago. Daytime loading is barred from 9 a.m. to 10 p.m. The city's DTS directs the police (HPD) to issue parking tickets to truckers in Waikiki, causing losses in fines and time in traffic court.*

Response: Time restrictions are needed to make the most efficient use of the limited street space that exists in Waikiki.

35. *Yet, the city would condemn and bar the public's access to certain lanes on major roads in the urban Honolulu core on a massive scale – part of which is to take over a whole lane (or two) for the entire Waikiki corridor for 21 hours a day. How can there not be space enough now to accommodate the current needs of the commercial transportation drivers, and yet have more space and time for the BRT?*

Response: The Refined LPA includes sharing of the BRT lanes in Waikiki with private buses and trolleys. Curbside freight loading on Kalakaua and Kuhio Avenues in Waikiki will be permitted just as it is today during late evening and early morning hours.

36. *The city contends it can afford to operate BRT 21 hours a day, every 3-5 minutes. How, then, is it that the city isn't giving even half or one third that kind of coverage now to the people of West, Central, Leeward and Windward Oahu, even in town?*

Response: The frequency of service for all bus routes, including for the In-Town BRT is shown in the FEIS for the Year 2025. There will be more frequent service for most routes by then in response to the projected population increase and increased usage of transit (mode share). The BRT headways will be particularly frequent since it will incorporate the consolidation of some existing routes along its alignment.

37. *The city proposes this BRT system to start and concentrate on the Waikiki end. But, if the intent is to serve resident taxpayers (and not tourists), why not focus on where the need is greatest, in West, Central and Leeward Oahu, where the public needs more bus seats now?*

Response: Waikiki is not only a tourist destination it is the employment site for 41,000 workers and houses 19,700 residents. The In-Town BRT will proceed ahead of the Regional BRT so that SDOT widening of H-1 can be accomplished before the H-1 BRT improvements are installed.

38. *The BRT is predicted to boost ridership, even though riders on regular bus routes will sit in the same worsened traffic as the rest of us. How can the city count on increasing patronage by having dissatisfied customers? What is the impact also on TheHandi-van services, services for the people who need to go for medical treatments and in emergencies?*

Response: Ridership will increase because riders will have a choice for many trips of using the faster BRT with limited stops are using the regular bus with more frequent stops. These options don't exist today.

Local bus and TheHandi-Van users will benefit along with all roadway users from the lessened delays forecast with the Refined LPA compared to the No-Build traffic conditions.

39. *Is it misleading to call a "tram" a "bus" as in BRT ("Bus Rapid Transit"). A bus doesn't need to run on a track, and a bus can overtake stalled vehicles. This proposed Tramway is fixed, inflexible, permanently unalterable (until you pull up the tracks), and stops all the cars behind any broke down tram ahead. The tram is impractical, as more efficient vehicles are available. Claims about time savings by tripping the traffic signals are overstated as pedestrians take time to cross the streets. Even now, the walk signals turn off after only 2-3 seconds, making streets pedestrian unfriendly.*

Response: BRT vehicles regardless of the technology ultimately chosen will indeed be buses. Even the embedded plate technology since it has battery back-up will not be fixed to a track, and will be able to go around stalled vehicles.

The signal priority that will be given to BRT buses at selected intersections will only allow the vehicles to extend the green time for a few seconds if the bus is so close to the intersection that it can take advantage of the added green time. Time will not be taken away from pedestrians by the extended green light for BRT buses.

40. *Re breakdowns! A frequent sight to see in San Francisco is riders pouring out of numerous electric trolleys stopped behind a broken down trolley ahead. Re exclusive, dedicated lanes: When the Tram broke down in Denver's shopping district, we couldn't get a taxi as all other vehicles are banned from the street.*

Response: Comment noted. Sharing experiences in other cities.

41. *CAN TAXPAYERS AFFORD IT?*

Response: This project has been developed following City Council policy to not increase taxes. The financial analysis (Chapter 6 of the FEIS) shows that no increases in existing taxes or new taxes will be required to fund the project as proposed.

42. *The capital cost is the cheapest part of the equation. The biggest burden for property tax payers is the cost to operate and maintain this tram system, adding significantly to the city's bloated budget. We question the city's claim that public subsidy of the city's transit system will not necessitate further tax increases.*

Response: The added O&M cost for the Refined LPA compared to the No-Build Alternative is in proportion to the increase in population growth forecast, such that no increase in per capita taxes are needed to pay for the added service.

43. *Budget constraints will predictably endanger the integrity of the existing bus system:*

i) to cut back on schedules (shorter hours, longer waits and delays for customers)
ii) cut down on routes (less places served)
iii) job layoffs and/or
iv) – no pay increases for TheBus and Hand-van employees.

Response: The financing plan in Chapter 6 of the FEIS shows that service will not have to be cut back. See response to comment #42.

44. *Businesses are fast becoming the Endangered Species in Hawaii! The approach of this project's DEIS and SDEIS further demonstrate government's anti-business climate in Hawaii. There is no consideration of the potential jobs to be lost, or of the customers inconvenienced, the services to be degraded, and the private sector to be displaced. Transportation is not about one mode (tram or bus). The public roads and highways are built to promote mobility for diverse purposes and uses, whereas the BRT in-town is intended to provide public transit with a monopoly of the major roads in the urban core.*

Response: Because there is a limited amount of road space in the PUC, priority is being given to accommodating the flow of people, not vehicles. The BRT, local buses, private buses and trolleys are being given preferential treatment in the Refined LPA, since they make more efficient use of the roadway system than do private autos.

45. *Why is there is no consideration of the Business Economic Impact of BRT on businesses:*
- *on property owners and tenants*
- *on minority and disadvantaged businesses*
- *on stores and restaurants,*
- *on patients, doctors and medical services*

- *on schools and special education services*
- *on riders of private commercial vehicles, or goods and deliveries by truckers*
- *on the convention clientele, on tourists in general, on the businesses who sell tour attractions and activities*
- *on everyone else who uses the streets and roads?*

Response: See responses to comments #5, #13, #15, and #35.

46. *Displacement of private commercial operators. Why is city allowed to ignore the impacts upon other uses:*

– some customers who are injured or sick and going to the doctor and have to pay more waiting time because the city takes away traffic lanes and congests up the streets?

Response: Impacts to motorists, including taxies, have not been ignored. Overall, congestion will be less for everyone with the Refined LPA.

47. *– slow-moving elderly and handicapped customers?*

Response: All facilities constructed and vehicles used as part of the project will be compliant with the Americans with Disabilities Act.

48. *– taxi drivers having to unload infant strollers and grocery bags?*

Response: The Refined LPA will not affect taxi drivers unloading infant strollers and grocery bags.

49. *– truckers making deliveries having to truck 2 blocks going and coming to their customers?*

Response: Except in a few instances loading zones for commercial vehicles making deliveries will be unaffected by the Refined LPA. As discussed in Section 4.4 of the FEIS, these few loading zone losses in Waikiki will be mitigated by establishing loading zones in close proximity and/or by creating turnout bays to allow passenger and freight loading during designated hours.

50. *– melting ice cream belonging to the grocery store customer stuck in traffic due to bumper to bumper traffic?*

Response: Comment noted.

51. *– Taxi riders having to pay more as the meter keeps on ticking in traffic congestion.*

Response: Congestion will be less with the Refined LPA compared to the No-Build and TSM Alternatives.

52. *– Degredation of services to taxi customers as it will take longer for the driver to arrive at the destination due to traffic congestion?*

Response: Congestion will be less with the Refined LPA compared to the No-Build and TSM Alternatives.

53. *– Taxi drivers having to work long hours to make the same number of trips as now, because they will be sitting in traffic?*

Response: Congestion will be less with the Refined LPA compared to the No-Build and TSM Alternatives.

54. *– why should our customers be inconvenienced and pay more, over the interests of bus riders?*

Response: Impacts to motorists, including taxies, have not been ignored. Overall, congestion will be less with the Refined LPA compared to the No-Build and TSM Alternatives.

55. *– why is the city going to make it so inconvenient and expensive to ride our non-government subsidized taxis?*

Response: Impacts to motorists, including taxies, have not been ignored. Overall, congestion will be less with the Refined LPA compared to the No-Build and TSM Alternatives.

56. *– why are the interests of tram riders having priority over our taxi customers?*

Response: Impacts to motorists, including taxies, have not been ignored. Overall, congestion will be less with the Refined LPA compared to the No-Build and TSM Alternatives.

57. *– the cumulative effect of traffic congestion, here, there and everywhere, at or near where the BRT system runs are definitely going to degrade our services unacceptably. The taxi business is time-sensitive, in other words, most customer call at the last minute, just before they need a ride. Our taxis go where and when most of the city buses don't go. But our drivers will be stuck in intolerable traffic congestion, a half-hour longer on Kapiolani, 20 minutes longer on Nimitz, 20 minutes more wherever the Tram goes near. So, our drivers will have to work more hours as the number of trips per hour falls, plus more street (individual), and wear and tear (cars). BRT doesn't even have to take our customers, the drivers will quit anyway in frustration!*

Response: Congestion will be less overall with the Refined LPA compared to the No-Build and TSM Alternatives.

58. *– why is the government pouring government funds to displace private sector transportation companies, by degrading our ability to service our customers at existing levels, so as to shift our customers into this BRT? Is it fair or legal for the monopoly government bus service to drive private small businesses out of business? Giving preference to the BRT over taxi riders is unfair competition, especially since taxi riders' fares are non subsidized.*

Response: The BRT is not designed to compete for patrons of private transportation services, such as taxis. For example, the BRT does not provide door-to-door service that taxis provide.

59. *– is the city violating the federal transportation department's policy to have Private Sector Participation in the formulation of an improved transit system, when in fact we have been ostracized and excluded as much as possible in the work planning details? Other transportation operators have told me that they were told not to attend BRT meetings, not to express objections to the BRT at OMPO policy meetings, and also that the Waikiki Working Group was "by invitation only". As a major taxi company in Honolulu, our company has been specifically ostracized by the city and its consultants, except in these very superficial public meetings. We are specifically*

excluded from working groups. I also attended a Waikiki Livable Community meeting, where we were told that BRT is a "given", not up for discussion. I wrote comments and never got even a thank you response.

Response: The City is not violating any federal regulations regarding private sector participation in formulating an improved transit system. There have been numerous forums for private sector transportation providers to provide input into the process. Besides the open houses, workshops, public hearings, City Council meetings open to everyone, there were three meetings of the Hawaii Transportation Association, where project representatives gave presentations on the project and invited feedback. The HTA membership includes private sector freight and passenger carriers. With regard to the working groups, their membership was limited to 30 to 40 invitees specifically so that there could be dialog among members and the project team in workshop type sessions. Members who were invited to attend the meetings were told that one of their responsibilities was to keep their sponsoring organization informed about the discussions at the meetings and to bring back comments and suggestions from other members of their organization who were not working group members. We don't know what specific comments are referred to where no response was given.

60. *-- why should the 92% of Oahu residents who don't ride the system pay for the addition of nice new trams for tourists?*

Response: The proposed improvements in the Refined LPA are for the benefit of residents. Less than 15 percent of the riders are expected to be non-residents.

61. *-- How much longer will it take for guests to wait for their pick-ups or for their cars at Moana and Surfrider, if it already takes 30-45 minutes now?*

Response: The Refined LPA will not effect pick-up of valet parked cars at the Moana-Surfrider Hotel.

62. *What is the impact of the BRT in Waikiki upon these and other hotels and restaurants and stores?*

Response: As described in Chapters 4 and 5 of the FEIS, the Refined LPA will not have significant impacts on hotels, restaurants or stores in Waikiki.

63. *Significant, Diverse, Immediate Solutions are available.*
Many other more worthy projects are being subordinated or ignored, due to the significant expense of the BRT project. We need more streets and alternative access roads to keep up with the increased development of houses in West Oahu.

Response: Comment noted. We do not know what "more worthy projects" are being referenced.

64. *Supplement the city-owned fleet with available tour buses and vans, to double carrying capacity. Honolulu is unique to have one of our nation's biggest supply of buses per capita, except for NYC and Washington DC. This available asset (of tour buses) is being wasted, sitting idle during morning peak hours (before morning tours).*

Response: DTS is considering contracting with private carriers to supply some of the collector services that will be part of the hub-and-spoke bus network. However, commuters need both a

ride in the morning and on the return trip home. Tour buses are typically not available for the return trip. Past attempts to contract with private tour operators for commuter services were not successful due to the unavailability of buses to serve the afternoon peak.

65. *Use reversible HOV contraflow lanes for use by all HOVs, not only the transit buses.*

Response: There will be reversible contra-flow lanes for buses on the H-1 Freeway. These zipper lane improvements will be available to HOVs as well as buses.

66. *The estimated 30% of uninsured motorists should be taken off the streets. The city's licensing division knows who they are, but nothing is being done, so we all have to pay premiums for uninsured motorists insurance due to the bureaucratic failures.*

Response: Comment noted. Uninsured motorists are beyond the scope of this project.

67. *Use incentives to encourage private carpools, by discounted parking, priority use of parking places to pick up other riders in car pools. (Private carpools save taxpayers the inefficient expense of hiring more bus drivers and mechanics and buying and garaging more buses.)*

Response: There currently exist incentives for individuals to participate in rideshare programs:

The statewide vanpool program offers vans for eligible commuters and provides tax advantages to employees and employers, who use those benefits related to their commuting fees and parking expenses. Similar tax benefits exist for those who purchase bus passes through their employers and participate in this federal program (TEA-21).

There also exists a rideshare program throughout Oahu conducted by the State Department of Transportation to match riders in carpools and this program is supported by the Leeward Oahu Transportation Management Association (LOTMA) to specifically reduce the number of vehicles traveling between Leeward and Central Oahu and Honolulu.

LOTMA also provides a Commuter Express Service (on private motor coaches for a monthly fee) to individuals from Central Oahu.

The value of both the vanpool and carpool programs that exist today include the reduction in traffic congestion and the savings by those that are not operating their own vehicles, who share expenses for fuel and parking. There is also the convenience factor of door-to-door service.

Other private carpools could mimic or duplicate the success of these programs. They would help to further reduce the number of cars on Oahu's roadways.

Buses carry many more riders in fewer vehicles than cars can handle by comparison and as mentioned earlier; some riders can save as they take tax advantage on their bus passes, if they qualify under TEA-21.

68. *Clear off accidents faster to re-open roads and highways. Set a maximum so that the roads are closed for hours at a time creating security problems and inconvenience and loss for everyone stuck in the traffic.*

Response: Both City and State agencies are reviewing current procedures in order to make more effective use of Intelligent Transportation Systems (ITS) to improve traffic incident response. Some

ITS components that would apply are traffic cameras and variable message signs to detect and inform motorist of accidents. The City is reviewing techniques that have the potential of allowing faster documentation of accident sites.

69. *Put in more Busbays so that the buses can pull out of the curb lane to load and unload bus riders. This would immediately add carrying capacity to existing streets.*

Response: Bus turnouts (bus bays) will be added along sections of Dillingham Boulevard and Kuhio Avenue.

70. *The proposed BRT in-town is unacceptable and impractical and offers no solutions to our island traffic and transportation needs. However, it will take a change in public policy to change the practice of furthering the monopoly transit operator, to instead use and manage the island's available assets and resources more efficiently, to have meaningful transportation improvements – for the general public interest.*

Response: Comment noted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

E Noa Corporation
1441 Waimanu Street
Honolulu, Hawaii 96814

Testimony of Tom Dinell
on behalf of the
E Noa Corporation
before the
City Council Transportation Committee
re
MIS/Draft EIS Primary Corridor Transportation Project
October 5, 2000

My Name is Tom Dinell. I am speaking today on behalf of the E Noa Corporation and its President, Katsumi Tanaka.

We believe that the residents of Oahu deserve a well-planned, well-conceived, efficiently operated public transit system. Generally speaking, we think that the recommended Bus Rapid Transit Alternative is the way to go. We have, however, a number of questions, which require attention. In our view, they are not addressed or adequately considered in the MIS/Draft EIS.

- Does it make sense to move buses to Kalakaua Avenue and eventually have an exclusive lane on that Avenue? Has the possibility of restricting Kuhio Avenue to transit vehicles and commercial vehicles, including tour buses and trolleys, been considered? Would not such an approach allow the widening of the present abysmally narrow sidewalks on Kuhio, contribute to a pedestrian orientation for Waikiki, result in an attractively landscaped Kuhio Avenue and reduce the use of Waikiki as a throughway for motor vehicles?

- How would shared use of an exclusive lane work? Can it work? If the time between the planned tram vehicles in Waikiki is four minutes, will it be feasible for tour buses and trolleys to share that lane, especially if these vehicles are engaging in loading and unloading passengers? If it

is impractical for tour buses and trolleys to use the exclusive curb lane, where will they go to load and unload passengers? Would it not be inviting serious accidents to board and let passengers off in a non-curb lane? Has the City and County Administration engaged in sufficient consultation with private operators concerning the use of a shared lane?

- What consideration has been given to the impact of the proposed BRT Alternative on the economic viability of private transportation companies operating in Waikiki? What consideration has been given in the MIS/Draft EIS to the appropriate division of labor between the public transit system and private sector transportation providers? If some of the private companies were to be driven out of business as a consequence of implementing the BRT Alternative, what would be the impact on City and County and State tax revenues? Is not a potential loss of public revenues a matter that should be considered in the MIS/Draft EIS or in another actionable document prior to adoption of the MIS/Draft EIS?

- What consideration has been given to the equitable division of operating costs between the riders and the taxpayers? Is there some ratio that makes sense? If local taxpayers are underwriting a substantial share of the operating costs, does it make any difference if the rider is a local resident, a mainland visitor, or a foreign visitor? Does the City and County have data showing the numbers of riders in each category at present and as projected under the BRT Alternative? Is not the equity issue a fundamental matter that should be addressed in the MIS/Draft EIS or in another actionable document prior to adoption of the MIS/Draft EIS?

- Is there not a serious problem inherent in approving an MIS/Draft EIS and committing ourselves to a major transportation alternative without first resolving some of the basic public policy issues not explicitly addressed in that document?

Thank you very much for the opportunity to share with you some of the questions that we believe need to be resolved prior to committing to the Bus Rapid Transit Alternative.

E Noa Corporation
1441 Waimanu Street
Honolulu, Hawaii 96814

Testimony of Tom Dinell
on behalf of the
E Noa Corporation
before the
Department of Transportation Services
re
MIS/Draft EIS Primary Corridor Transportation Project
October 12, 2000

My Name is Tom Dinell. I am speaking today on behalf of the E Noa Corporation and its President, Katsumi Tanaka.

We believe that the residents of Oahu deserve a well-planned, well-conceived, efficiently operated public transit system. Generally speaking, we think that the recommended Bus Rapid Transit Alternative is the way to go. We have, however, a number of questions, which require attention and which are not addressed or adequately considered in the MIS/Draft EIS. In fact, the major problem with the MIS/Draft EIS is not in what it says, but in what it does not say.

- Does it make sense to move buses to Kalakaua Avenue and eventually have an exclusive lane on that Avenue? If the possibility of restricting Kuhio Avenue to transit vehicles and commercial vehicles, including tour buses, trolleys and taxis, has been considered and discarded, that fact is neither stated nor documented in the MIS/Draft EIS. Would not a resticted access to Kuhio allow the widening of the present abysmally narrow sidewalks on along that Avenue, contribute to a pedestrian orientation for Waikiki, result in an attractively landscaped Kuhio Avenue and reduce the use of Waikiki as a throughway for motor vehicles? I could not find any place in the MIS/Draft EIS where such questions are discussed.

- The MIS/Draft EIS does not describe how shared use of an exclusive lane in Waikiki would work? Can it work? If the time between the planned tram vehicles is four minutes, will it be feasible for tour buses and trolleys to share that lane, especially if these vehicles are engaging in loading and unloading passengers? If it is impractical for tour buses and trolleys to use the exclusive curb lane, where will they go to load and unload passengers? Would it not be invitlng serious accidents to board and let passengers off in a non-curb lane? Has the City and County Administration engaged in sufficient consultation with private operators concerning the use of a shared lane? I could not find any place in the MIS/Draft EIS where such questions are discussed.

- Does the MIS/Draft EIS consider what the impact of the proposed BRT Alternative will be on the economic viability of private transportation companies operating in Waikiki? Does that document consider the appropriate division of labor between the public transit system and private sector transportation providers? If some of the private companies were to be driven out of business as a consequence of implementing the BRT Alternative, what would be the impact on City and County and State tax revenues? Is not a potential loss of public revenues a matter that should be considered in the MIS/Draft EIS or in another actionable document prior to adoption of the MIS/Draft EIS? I could not find any place in the MIS/Draft EIS where such questions are discussed.

- What consideration has been given in the MIS/Draft EIS to the equitable division of operating costs between the riders and the taxpayers? Is there some ratio that makes sense? If local taxpayers are underwriting a substantial share of the operating costs, does it make any difference if the rider is a local resident, a mainland visitor, or a foreign visitor? Does the City and County have data showing the numbers of riders in each category at present and as projected under the BRT Alternative? Is not the equity issue a fundamental matter that should be addressed in the MIS/Oraft EIS or in another actionable document prior to adoption of the MIS/Draft EIS? I could not find any place in the MIS/Draft EIS where such questions are discussed.

- What are the opportunity costs of using general obligation bonds to fund a portion of the cost of building the BRT system? What projects

will have to be forgone if we use GO bonds to fund capital BRT costs while maintaining the current level of GO bond funding of the capital budget? I could not find any place in the MIS/Draft EIS where such questions are discussed.

- Is there not a serious problem inherent in approving an MIS/Draft EIS and committing ourselves to a major transportation alternative without first resolving some of the basic public policy issues not explicitly addressed in that document?

Thank you very much for the opportunity to share with you some of the questions that we believe need to be resolved prior to committing to the Bus Rapid Transit Alternative.

E Noa Corporation
1441 Waimanu Street
Honolulu, Hawaii 96814

Testimony of Tom Dinell
on behalf of the
E Noa Corporation
before the
City Council Transportation Committee
re
MIS/Draft EIS Primary Corridor Transportation Project
October 26, 2000

My Name is Tom Dinell. I am speaking today on behalf of the E Noa Corporation and its President, Katsumi Tanaka.

We believe that the residents of Oahu deserve a well-planned, well-conceived, efficiently operated public transit system. Generally speaking, we think that the recommended Bus Rapid Transit Alternative is the way to go. We have, however, a number of questions, which require attention and which are not addressed or adequately considered in the MIS/Draft EIS

This evening, however, I wish to focus solely on the proposed tram alignment in Waikiki and recommend an alternative to the use of Kalakaua Avenue. Establishing an exclusive lane on Kalakaua, even if tour buses and trolleys are permitted to use that lane, will give rise to multiple problems.

Creating a beautiful, well-landscaped Pedestrian-Transport Mall on Kuhio Avenue allows us to use one project to move multiple Waikiki initiatives forward simultaneously:

- revitalize Kuhio, which currently is a blot on Waikiki,
- contribute to a pedestrian-friendly Waikiki,
- reduce through vehicular traffic in Waikiki, and
- assure the rapid movement of the Tram, City buses and tour buses and trolleys in Waikiki.

The Mall would work this way:

- Widen both the mauka and makai sidewalks by approximately six feet each (except in the two or three blocks where Kuhio is only four lanes wide), using the Local Motion and Nike Town sidewalks as models where appropriate.
- Restrict vehicular traffic on the Kuhio Pedestrian-Transport Mall to the City Tram and buses, tour buses and trolleys, taxis and other commercial vehicles.
- Allow passenger vehicles on the Mall for only one or two block lengths for gaining necessary access to or egress from hotel and residential parking areas and hotel port cocheres.
- Use the mauka and makai lanes for loading and unloading passengers from the Tram, tour buses and trolleys and taxis and cargo from commercial vehicles.
- Use the mauka center lane for movement of allowed vehicles in the Ewa direction and the makai center lane for movement of allowed vehicles in the Diamond Head direction.
- Create a tram turnabout at the Diamond Head end of Kuhio by acquiring the vacant lot on the makai side and/or a small potion of Jefferson School on the mauka side.
- Make the Pedestrian-Transport Mall a place of joy and beauty by creating attractive sidewalks, exquisite landscaping, handsome street furniture and good looking street lighting and inviting private businesses to make their establishments equally attractive.

The Primary Corridor Transportation Project is going to absorb a large portion of the City's capital budget capacity for at least ten years. If we do not use this Project to revive Kuhio Avenue now, it is unlikely that City capital improvement funds will be available for such a purpose anytime in the near future.

We have an opportunity to move multiple Waikiki initiatives forward by means of a single project. Let's not let that opportunity slip away.

We recommend that when the Council selects the preferred alternative that they include a proviso requiring consideration of the creation of a Kuhio Pedestrian-Transit Mall as an alternative to the proposed Kalakaua/ Kuhio alignment.

We have other questions about the MIS/Draft EIS, but we will save them for another day. Thank you very much for the opportunity to share with you our thoughts and hopes for a Kuhio Pedestrian-Transit Mall.

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E NOA CORPORATION

Operators of E Noa Tours & Waikiki Trolley Tours "The Tour & Trolley People"

November 6, 2000

Ms. Cheryl D. Soon
Director
City and County of Honolulu
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Re: E Noa Corporation Comments on MIS/Draft EIS

Dear Ms. Soon:

This response to the Primary Corridor Transportation Project MIS/Draft EIS from the E Noa Corporation is presented primarily in the forms of questions. Generally speaking, we think that the recommended Bus Rapid Transit Alternative is the way to go. We have, however, many questions, which require attention and which are not addressed or adequately considered in the MIS/Draft EIS. We hope you find our questions useful to you as you prepare the final EIS.

1. **The Nature of the Visitor Industry.** The crucial element for the private transportation companies serving the visitor industry is service. Central to service is the convenience of the customer who is visiting Hawaii. Convenience to the customer using private transportation services means: (a) being picked-up and dropped-off at his or her hotel, (b) multiple stops for his or her convenience, (c) having the vehicle wait even if he or she is a bit late for the transportation that has already been paid for, (d) not being mystified and confused by being told to wait for a tour bus or trolley at a location with hard-to-pronounce street names, and (e) being able to choose to travel by tour bus or trolley or taxi or limousine or rental car. Furthermore, the Hawaii visitor industry is highly dependent on packages offered by travel wholesalers who may easily promote packages to other destination areas if they find that private passenger carriers in Hawaii are not serving their customers well. A reputation for inadequate service is likely to lead to fewer visitors, which would have serious consequences for the visitor industry and in turn all of Hawaii including government. Has the MIS/Draft EIS taken into consideration the convenience of the visitors who are served by the private transportation carriers?

2. **The Shared Lane on Kalakaua.** Does it make sense to move City buses to Kalakaua Avenue? Why is it being suggested that they be moved? Will the concept of having the BRT trams share the lane with private tour buses and trolleys work? Will private tour buses and trolleys be allowed to stop to load and unload passengers in the shared lane? Would not such loading and unloading operations tend to interfere with the timely movement of the frequent BRT trams? If such a situation arises, is it not likely that

curbside loading and unloading of private tour buses and trolleys along the makai lane of Kalakaua would be banned? If it is impractical for private tour buses and trolleys to share the exclusive curb lane, then where would the private tour buses and trolleys go? Would it not be inviting serious accidents to board and let passengers off in the mauka lane or a non-curb lane?

3. **A Pedestrian-Transit Mall on Kuhio Avenue.** Has the possibility of creating a Pedestrian-Transit Mall along Kuhio Avenue, restricted to City buses and trams and commercial vehicles, including tour buses, trolleys, taxis and limousines, and allowing limited private vehicle access to garages and hotel porte cocheres, been considered? Would not restricted access to Kuhio allow for the widening of the present abysmally narrow sidewalks along that Avenue, contribute to a pedestrian orientation for Waikiki, result in an attractively landscaped Kuhio Avenue, reduce the use of Waikiki as a throughway for motor vehicles and facilitate accomplishing two major capital-intensive endeavors with a single project? (See attachment describing how a Kuhio Avenue Pedestrian-Transit Mall might work.) Has another alternative, namely, moving the BRT tram Diamond Head on Kuhio and Ewa on Ala Wai Boulevard been examined?

4. **Economic Viability of Private Transportation Companies:** What is the impact of the proposed BRT Alternative on the economic viability of private transportation companies operating in Waikiki? What is the appropriate division of labor between the public transit system and private sector transportation providers? If some of the private companies were to be driven out of business as a consequence of implementing the BRT Alternative, what would be the impact on City and County and State tax revenues? Does not Federal law require that in the planning of new transportation programs, to be financed from federal funds, consideration be given to preserving and utilizing existing transportation facilities, both public and private? Furthermore, does not federal law require that in planning such new systems overall social, economic, energy and environmental impacts be considered (underlining added)?

5. **Equitable Division of Operating Costs.** What consideration has been given to determining an equitable division of operating costs between riders and taxpayers? Is there some ratio that makes sense? Is the current 1:3 ratio the proper ratio? Is not the ratio closer to 1:1 for most mainland municipal transportation systems? If local taxpayers are underwriting a substantial share of the operating costs, does it make any difference if the rider is a local resident, a mainland visitor, or a foreign visitor? Does the City and County have data showing the numbers of riders in each category at present and as projected under the BRT Alternative? Is not the equity issue a fundamental matter that should be addressed at this time?

6. **Opportunity Cost of Using General Obligation Bonds.** What are the opportunity costs of using general obligation bonds to fund a portion of the cost of building the BRT system? What portion of the general obligation capacity of the City will be devoted to funding the BRT alternative, assuming the current level of GO bond funding of the capital budget is maintained? What projects will have to be forgone if the City uses GO bonds to fund

capital BRT costs? Is it not possible to review the CIP appropriation bills for the past three years and prepare a fairly accurate list of the projects that will not be undertaken during the construction of the BRT, given the commitment to level CIP funding and current bond limits? Is making such a list public an essential part of an open evaluation process that allows citizens to make informed judgments?

7. **Competing With Privately-Owned Transportation Companies.** Is the City involved in a basic conflict of interest? Can it be both a regulator, creating a level playing field for all private operators, and an entrepreneur, operating a highly subsidized public transit system, without getting these two roles confused? Will not the City's desire to promote the well-being of its own enterprise take precedence over other choices in a manner that will be detrimental to privately owned, tax-paying transportation businesses? Are there not already examples of the City using its privileged position as policy-maker and entrepreneur to compete unfairly with privately owned transportation companies such as: (a) the low-cost four-day pass, marketed to short-term visitors; (b) the publication and distribution of TheBus schedule in Japanese editions distributed in Japan for which OTS receives a royalty; (c) The City monopolizing pick-up and delivery service to specific visitor destinations, e.g., Hanauma Bay; and (d) the City subsidization of the travel of visitors on its buses, with taxpayers paying approximately $3 for every $1 of revenue received by the City (and ignoring the subsidy in terms of capital costs)?

8. **Statistical Precision.** How precise are the estimates of costs, revenues and ridership and other projections ten and twenty year hence, which are put forth in the MIS/Draft EIS? Is there not a margin of potential error in such projections? If so, what is the margin of error that applies to each class of data? With what degree of accuracy can a ridership of 333,000 trips per day be projected for the BRT alternative in the year 2025? How accurate is the figure of $1,060,300,000 capital costs over 25 years for the BRT alternative (expressed in 1998 dollars)?

The E Noa Corporation is ready to work with you and others in refining the BRT alternative as it relates to Waikiki. We hope you take our questions very seriously so that the plans you develop and implement do not make it difficult or impossible for E Noa Corporation and other privately owned, tax paying transportation companies to serve Hawaii's visitors and serve them well and with aloha. Thank you very much for considering our question. We look forward to your responses and future dialogue on these important issues.

Sincerely yours,

Tom Dinell
Consultant to E Noa Corporation

Cc: Office of Environmental Quality Control
Attachment: A Pedestrian Traffic Mall for Kuhio Avenue: How It Might Work

ATTACHMENT

A Pedestrian-Transit Mall for Kuhio Avenue: How It Might Work

Creating a beautiful, well-landscaped Pedestrian-Transport Mall on Kuhio Avenue would allow the City to use one project to move multiple Waikiki initiatives forward simultaneously:

- revitalize Kuhio Avenue, much of which is currently a blot on Waikiki,
- contribute to a pedestrian-friendly Waikiki,
- reduce through vehicular traffic in Waikiki, and
- assure the rapid movement of the Tram, City buses and tour buses and trolleys in Waikiki.

The Mall, in general terms, would work this way:

- Widen both the mauka and makai sidewalks by approximately six feet each (except in the two or three blocks where Kuhio is only four lanes wide), using the Local Motion and Nike Town sidewalks as models where appropriate.
- Restrict vehicular traffic on the Kuhio Pedestrian-Transport Mall to the City Tram and buses, tour buses and trolleys, taxis and other commercial vehicles.
- Allow passenger vehicles on the Mall for only one or two block lengths for gaining necessary access to or egress from hotel and residential parking areas and hotel port cocheres.
- Use the mauka and makai lanes for loading and unloading passengers from the Tram, tour buses and trolleys and taxis and cargo from commercial vehicles at designated locations..
- Use the mauka center lane for movement of allowed vehicles in the Ewa direction and the makai center lane for movement of allowed vehicles in the Diamond Head direction.
- Create a tram turnabout at the Diamond Head end of Kuhio by acquiring the vacant lot on the makai side and/or a small potion of Jefferson School on the mauka side.
- Make the Pedestrian-Transport Mall a place of joy and beauty by creating attractive sidewalks, exquisite landscaping, handsome street furniture and good looking street lighting and inviting private businesses to make their establishments equally attractive.

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The above bullets describe in general terms how a Kuhio Avenue Pedestrian-Transit Mall might work. Clearly a systematic planning study is required to flesh out: (1) the details of how the Mall would operate, including specifying how traffic would move onto, off of and across Kuhio; and (2) estimates of the resulting vehicular traffic load on Kalakaua Avenue and Ala Wai Boulevard.

The Primary Corridor Transportation Project will absorb a large portion of the City's capital budget capacity for at least ten years. If the City does not use this Project to revive Kuhio Avenue now, it is unlikely that City capital improvement funds will be available for such a purpose anytime in the near future.

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E NOA CORPORATION

Operators of E Noa Tours & Waikiki Trolley Tours "The Tour & Trolley People"

Testimony of Tom Dinell
on behalf of the
E Noa Corporation
before the
City Council Transportation Committee
Re:
Resolution 00-249
Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project
November 14, 2000

My Name is Tom Dinell. I am speaking today on behalf of the E Noa Corporation and its President, Katsumi Tanaka.

We generally support the intent of Resolution 00-249 relating to the selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project. We have, however, a number of questions, which require attention and which are not addressed or adequately considered in the MIS/Draft EIS. We also are offering language for a friendly amendment to the Resolution.

We have listed our questions in our November 6, 2000, to Cheryl Soon, Director of the Department of Transportation Services. That letter and an addendum thereto describing how a Pedestrian-Transit Mall on Kuhio Avenue might work are attached to this testimony. Our questions relate to:

- The Nature of the Visitor Industry;
- The Shared Lane on Kalakaua Avenue;
- A Pedestrian-Transit Mall on Kuhio Avenue;
- Economic Viability of Private Transportation Companies;
- Equitable Division of Operating Costs;
- Opportunity Costs of Using General Obligation Bonds
- Competing with Privately-Owned Transportation Companies;
- Statistical Precision.

We hope you will take time to study our questions and secure responses to them before you take final action on Resolution 00-249.

Finally, we urge you to amend the first "Be It Further Resolved" clause of the Resolution by adding the following words at the end of that clause: "provided that consideration is given to realigning the transit spine in Waikiki so as to avoid using Kalakaua Avenue." If such a proviso is not added to the Resolution, we urge you to incorporate such a request for reconsideration of the alignment in Waikiki in your Committee Report.

Thank you very much for the opportunity to share with you our thoughts on Resolution 00-249.

E NOA CORPORATION

Operators of E Noa Tours & Waikiki Trolley Tours "The Tour & Trolley People"

MAY 8 2002

Comments on the Supplemental Draft Environmental Impact Statement on the Primary Corridor Transportation Project

May 7, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

and

Ms. Genevie Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Soon and Ms. Salmonson:

Thank you very much for providing us with this opportunity to comment on the Supplemental Draft Environmental Impact Statement (SDEIS) on the Primary Corridor Transportation Project. Let us make clear, before proceeding with our comments, that we strongly favor improved public mass transit for Oahu residents. We also believe, however, that there are serious problems in this Supplemental Draft Environmental Impact Statement that lead us to recommend the rejection of this SDEIS. Our comments follow. All citations refer to the Supplemental Draft EIS, Primary Corridor Transportation Project, March 2002, unless otherwise noted.

1. **The Absence of a Multi-Modal Transportation Plan for Honolulu.** There is no current over-all multi-modal transportation plan for Honolulu based on continued use of private vehicle automotive transportation, which supports the automobile within a policy context that provides for mitigating its environmental, resource and movement impacts, while increasing other transportation choices, such as public transit, car-pooling, van-pooling, bicycling, walking, flexible work hours and telecommuting, among other

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strategies. The Draft Supplemental EIS does refer to the public review drafts of the Primary Urban Center and Ewa Development Plans and to the Oahu Metropolitan Planning Organization's Transportation for Oahu Plan (Top 2025) and to the City's own Islandwide Mobility Concept Plan. All of these are useful documents; particularly the Islandwide Mobility Concept Plan, but none of them is a multi-model transportation plan for Oahu. Transportation in the modern metropolitan community is not a matter of private car versus public transit, but rather how to fit all the multiple means of transportation together, as well as mitigating the need for transportation and relating land-use and transportation developments, into an integrated, multi-model transportation plan, as the Islandwide Mobility Concept Plan recognizes.

The absence of a multi-modal transportation, within which the proposals put forth in the Supplemental Draft EIS fit, makes the SDEIS a deficient and inadequate document, which should be rejected.

2. **The Failure to Consider a Range of Alternatives Generally.** The original MIS/Draft EIS considered three alternatives, namely, no-build, TSM and BRT. (See S.2.1, pp. S-3/4). The fixed rail alternative, whether light or heavy, was not analyzed in detail in the initial MIS/Draft EIS. (See pp 2-2/4, MIS/Draft EIS Primary Corridor Transportation Project, City and County of Honolulu, Department of Transportation Services, August 2000.) The possibility of a right-of-way that might potentially provide a separate grade system for a portion of the transit route was not mentioned in the initial Draft MIS/EIS nor in the SDEIS. There is no consideration of the potential for expanding the van pool system nor increasing the use of flexible working hours now expanding the portion of the work force employing telecommunting or other alternative strategies in the SDEIS.

Perhaps none of these alternative strategies would contribute to easing Honolulu's transportation problems, though that is hard to believe. Perhaps some would turn out to have a low cost-benefit ratio and therefore should not be selected. Not having subjected alternative strategies to serious examination and detailed, objective analysis in the SDEIS makes the SDEIS a deficient and inadequate document, which should be rejected.

3. **The Failure to Consider a Range of Alternative in Waikiki.** The Draft Supplemental EIS fails to consider a range of alternatives for Waikiki. The route laid out in the SDEIS, namely, Diamond Head on Kalaukaua, mauka on Kapahulu and ewa on Kuhio, was the single alternative specified in the original MIS/Draft MIS and is the single alternative put forth in the current supplemental EIS. Three other routes were proposed early in the Fall of 2001 in the Waikiki Working Group, the last of the working groups to be convened. Actually, this working group met first in August 2001 and then once or twice again in the fall and then was recessed by the Department of Transportation Services (DTS). The Waikiki Working group was subsequently reconvened in April 2002. (S 2.2, p. S-5 misstates this chronology.) At its first meeting in April 2002, it was announced

by DTS that this would be the next to last meeting of the Waikiki Working Group. The reasons offered by DTS for the long recess were less than totally persuasive.

At the end of this next to last meeting in April, a document was presented by the consultant that showed that none of the alternative Waikiki routes, in their view, was as good as the DTS preferred route. The consultant used a single criterion and data related to that criterion in reaching its conclusion. The single criteria was time convenience to potential passengers in Waikiki. Neither DTS nor the consultant considered any other criteria, such as impact on traffic flow or street life or on rehabilitation of run-down areas or on the uniqueness of Waikiki as an urban resort area or on the economic well-being of businesses serving Waikiki. There was one criterion, selected by DTS and the consultant, and that was it.

With respect to ending the In-Town BRT at Saratoga, the consultant did not consider the possibility of combining a Saratoga Terminus with a Waikiki Circulator, designed to reflect and enhance the unique nature of Waikiki. This analysis could have been conducted using several alternative schemas that varied the routes, the number of stops, and the charges, such as allowing free transfers. In failing to consider this alternative, the SDEIS simultaneously neglects to consider the capital and operating costs of a circulator versus the capital and operating costs of the BRT on the route that DTS had preselected. Since the alternatives were proposed in fall 2001, but data were not provided until April 2002 at the next to last meeting of the Waikiki Working Group, and well after the Draft Supplemental EIS had been issued, the likelihood that there was to be serious consideration of these alternatives was, to say the least, minimal.

Furthermore, the Supplemental Draft EIS fails to make clear the justification for spending significant amounts of money on the Waikiki leg of the In-Town BRT beyond Saratoga when the Draft EIS states that the peak hour level of service (LOS) for the Refined BRT and for automobiles beyond Saratoga will be exactly the same, assuming the sidewalks along Kuhio are widened as anticipated. (Table 4.2..7, p. 4-19.) At the Saratoga Road and Kalakaua intersection, transit will yield a one or two LOS advantage. (ibid.)

The consultation process in Waikiki was further flawed by DTS's refusal to release to the Working Group members and the public copies of the Mattson Report, which was presented verbally at a fall meeting of the Waikiki Working Group. Mattson and his colleagues interviewed users of TheBus in Waikiki. DTS draws on the Mattson Report to support one of the assertions it puts forth in the Supplemental Draft EIS. (See "Econom,ic Impacts to Tour Bus Operators, pp. 5-19/20.) The Report was commissioned by DTS and paid for using taxpayers' monies and yet DTS to date has not been willing to release the Report nor to explain why it is refusing to release the Report. One can only speculate as to why DTS has sat on the Report and none of the potential reasons reflects well on DTS. It is very difficult to comprehend how refusing to release the Mattson Report contributes to an open and informed participatory review process. One could

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also raise the question of whether DTS has the legal right to suppress the Matteson Report.

The failure to examine the alternative routes suggested for Waikiki in a timely, serious and thorough manner using multiple criteria, the inexplicable commitment to continue with the Waikiki leg when its offers almost no improvement in level of service vis a vis the automobile and the suppression of the Mattson Report make the SDEIS a deficient and inadequate document, which should be rejected.

4. **The Economic Impact of the In-Town BRT on the Tour Bus Operators.** The Supplemental Draft EIS asserts that the In-Town BRT will not adversely affect the economic well-being of the tour bus operators. (See 5.1.5, pp. 5-19/20) It reports that visitors account for approximately five percent of total daily boardings system wide and between 20% and 25% of boardings in Waikiki. The SDEIS cites OMPO, though it is not clear what OMPO Report the SDEIS is referring to, and the never-released Mattson survey as source documents. It further states that visitor trips are projected to constitute approximately 7.7% or 6,100 of the 79,300 boardings using the In-Town BRT. The section concludes that the number of visitors using the BRT will be no greater proportionately in the future than it is today. It further concludes that, "it is not expected that the tour bus operators will be adversely affected due to the relatively low number of tourists that are expected to chose BRT for their travel needs." No economic analysis is provided to substantiate these conclusions.

We maintain that the government should not drive legitimate private businesses out of business or reduce their opportunities to engage in business by offering subsidized services that compete with the services offered by those businesses. To do so not only damages private enterprise, deprives employees of work, cuts into tax revenues, but also contributes to Hawaii's reputation as an unfriendly place to do business.

With In-Town BRT service every four to six minutes along Kalaukaua and Kuhio, 21 hours a day, it would simply be phenomenal if the number of visitors using the In-Town BRT did not increase. The City Administration is using taxpayers' money to compete head-on with taxpaying private businesses. Federal Transit Administration Circular C 9300.1A, Section 4, Subsection 9 (a) states in part, "Specifically, FTA is prohibited from providing federal assistance to a governmental body that provides service in competition with, or supplemental to, service currently provided by a private transportation company, unless FTA finds that the local transportation program developed in the planning process provides for participation by private transportation companies to the maximum extent feasible."

To the best of our knowledge, neither DTS nor it consultants has systematically solicited data from tour operators to determine what those in the tour business and related transportation services have concluded would be the impact of the In-

Town BRT on their businesses. Further, the Draft cites the Mattson Report in support of its assertions but, as noted above, has failed to release the Mattson study so that those impacted by the In-Town BRT in Waikiki might examine that Report.

The Supplemental Draft EIS asserts no damage to the tour operators, but assuming DTS is wrong and there is damage, what recourse would the tour operators have? Could they recover their losses from the City because the assertion in the Supplemental Draft EIS was incorrect. The answer to that question is undoubtedly "no."

There is nothing in the Supplemental Draft EIS that provides a guarantee that the City might not increase its number of stops in Waikiki to six or seven or eight. There is nothing in the Supplemental Draft EIS that provides a guarantee that tour operator will be able to continue to share the currently planned semi-exclusive lane along Kalakaua Avenue if the City decides, in its wisdom, at some future date that sharing the lane is interfering with the smooth operation of the In-Town BRT.

The City's track record demonstrates that the City Administration is not concerned with the economic well-being of the tour operators. The City Administration is currently aggressively competing with the private tour operators by seeking to provide public subsidized transit services to visitors as witness: (1) TheBus Guide for visitors in English and Japanese, with an introduction by the Mayor; (2) the monopoly of Hanauma Bay by TheBus with Route 22 serving visitors almost exclusively, even though multiple ways to protect the fragile Hanauma Bay environment exists other than by establishing a City monopoly on multi-passenger vehicle transportation to and from the Bay; and (c) and planning of the Waikiki leg of the in-town BRT without adequate consultation with the transportation carrier industry. (See Federal Transit Administration Circular C 9300.1A, Section 4, Subsection 9.)

The failure of the City to substantiate its assertion that the In-Town BRT will not damage the tour operators economically and the track record of the City in seeking to aggressively compete with private operators further demonstrate that the SDEIS is a deficient and inadequate document, which should be rejected.

5. **The Financial Implications of BRT.** The City is in dire financial straits. The Administration is proposing to balance the operating budget by bond restructuring ($53 million), tapping the Sewer Fund, even though the projected sewer and wastewater capital cost are estimated to rise from $81.4 million in 2002 to $257.9 million in 2002, use of the H-Power Fund for underwriting the cost of residential refuse collection ($18 million) and sale of land ($15 million). Furthermore, the City Department of Budget and Fiscal Services projects that annual debt service payments will increase from $104 million in 2002 to $271 million in 2009 based on the assumption that interest on all new debt will be at

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5% per annum. As the annual debt service increases, it will become the largest single expenditure item in the City's operating budget.

There is almost no possibility that the interest rate on new city debt will remain at 5% per year. Nationally, the basic interest rate is likely to rise from its very low current base as the national economy recovers and the Federal Reserve Bank raises its benchmark interest rates. Further, as Honolulu debt service increases as a portion of the total operating budget and Honolulu's financial position becomes increasingly fragile, there is a very high likelihood that either Honolulu's credit rating will slip, thus increasing the cost of borrowing to the City, or that the property tax rate will need to be raised so as to be able to pay for both debt service and the cost of operating police, fire and other municipal services.

The Supplemental Draft EIS provides three assurances, which appear to be based on very shaky foundations, given the City's present and future financial conditions: (1) The BRT can be funded without raising taxes (see S.4, pp. S-15/16); (2) no major capital projects will be deferred as a result of selecting the Refined BRT (see S.4, p. S-18); and (3) the State will pay the estimated $760,000 that it is estimated that it will cost annually to operate the Zipper Lane (see 6.1.2, p. 6-5). .

Given the financial situation of the City, as briefly outlined above, the likelihood that the City is not going to have to raise taxes in the near future appears slim indeed. Some portion of the increased taxes will be attributable to the BRT Project, so for the Supplemental Draft EIS to state that taxes will not have to be raised to fund the BRT rings hollow indeed.

Some capital projects will undoubtedly be deferred as a result of selecting the Refined BRT alternative since the City money expended on the BRT will not be available to be expended on other CIP projects. The cost of proposed capital projects always exceeds the funds available. If the BRT is funded out of the capital budget, then there will be projects that will have to be deferred or forgotten about.

The City in the Supplemental Draft EIS assumes that the State will pay the estimated $760,000 that it is projected that it will cost annually to operate the Zipper Lane, thus reducing potential annual operational costs to the City by that amount. No evidence is provided in the Draft that the State has agreed to or will be willing to assume these costs. To date, the State has not indicated any willingness to fund any of the cost of the BRT. In fact, the MIS/Draft EIS, issued in August 2000, assumed that the State would participate in funding the capital costs of the BRT. (See Table 4-1, p. S-18, MIS/Draft EIS Primary Corridor Transportation Project, City and County of Honolulu, Department of Transportation Services, August 2000.) When the State indicated that it had no plans to assist in funding the BRT, the City stated it would assume the share of the cost initially allocated to the State.

The City has included detailed projections of operating costs, capital costs and ridership in the Supplemental Draft EIS. All of these projections are offered as fixed figures. How precise are the estimates of costs, revenues and ridership and other projections ten and twenty year hence, which are put forth in the SDEIS? Is there not a margin of potential error in such projections? If so, what is the margin of error that applies to each class of data? With what degree of accuracy can a ridership of 291,900 trips per day be projected for the BRT alternative in the year 2025? (See Table S.6.1, p.S-21.) How accurate is the figure of $1,062,500,000 capital costs over 25 years for the BRT alternative (expressed in 1998 dollars)? (ibid.) How trustworthy is the estimate that operating costs will be $180,100,000 when the system is fully operative? (ibid.) Are not cost overruns on major capital projects built by governments frequent? Are not future operating costs of public projects frequently underestimated? Do not projections of future ridership frequently turn out to be overestimates?

Why does not the SDEIS offer it long-term projections in terms of ranges, such as high, low, probable? Why is not the difficulty of making future projections discussed in the Supplemental Draft EIS and qualifications offered as to the probable accuracy of such estimates? And what happens if it turns out that the Supplemental Draft EIS has underestimated capital costs and operating costs and overestimated ridership? Who assumes responsibility for the consequences of estimates that prove to be incorrect?

The lack of discussion of the City's current financial situation in the SDEIS, the absence of evidence that that situation has been taken into account in making cost projections, the doubtful nature of the SDEIS statements relating to tax increases, other proposed capital projects and state funding, and the absence of qualification of the estimates of long-term operating and capital costs and ridership projections make the Draft EIS a deficient and inadequate document, which should be rejected.

6. Starting With The In-Town BRT? The City Administration is proposing starting construction with the In-Town BRT rather than with the Regional BRT. The Regional BRT, however, together with local buses, will serve 5.5 times as many riders as the In-Town line (see Table 4.1-4, p.4-5), will help people who currently have the longest and most time-consuming commute and will result in a time-saving to the users of 17 minutes (Kapolei to downtown) as opposed to three minutes on the In-Town BRT (downtown to Waikiki). (See Table 4,1-6, p. 4-7.) Amazingly, the staging of BRT construction is not discussed in the Supplemental Draft EIS even though it is a critical element of placing the BRT in operation.

Informally, two rationales for proceeding with the In-Town BRT first have circulated. First, it is maintained, as we understand it, that it is important to start with the In-Town BRT first so that when the Regional BRT is constructed, there will be a transit system in-town available to move the riders of the Regional BRT. There is already a system in place, namely TheBus, to move people coming into

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town on the Regional BRT if it were to be constructed first. It is the Regional BRT that is going to serve the local resident and reduce his or her commute from Kapolei to downtown by 17 minutes. The In-Town BRT will only save that same rider three minutes going from downtown to Waikiki. (Ibid.)

The second rationale that has been mentioned is that the State is said not to be ready to move on making the necessary modifications to the freeway system that are part of the proposed Regional BRT. This matter is not discussed in the Supplemental Draft EIS. It is certainly a matter deserving public discussion and close state-county coordination. There is a real danger, if the difficulties relating to the Regional BRT are not ironed out first, that the In-Town BRT serving 79,000 people (including tourists who constitute approximately 25% of those boarding or deboarding in Waikiki) and saving three minutes of travel time will be built and the Regional BRT serving 459,000 (including those served by local buses), almost all of whom are residents and saving those residents 17 minutes of travel time, will never be built.

The phasing of construction and determining who will be served first and why are critical issues which should be addressed in the Supplemental Draft EIS. The fact that they are not addressed in the SDEIS makes the Draft a deficient and inadequate document, which should be rejected.

7. **The Move From Private Automobiles to Public Transit.** The Supplemental Draft EIS assumes, and rightly so, that it is important to make mass transit more comfortable and swifter if more people are to be attracted to ride public transit. It further assets that, "The delay to motorists is expected to accelerate a switch in travel behavior from automobiles to transit." (See S.6.3, p. S-23.) This is a critical assumption, namely that by taking vehicle lanes for exclusive or semi-exclusive use by public transit vehicles, and thus increasing congestion for automobile drivers, that a significant portion of those drivers will willingly, or perhaps unwillingly, shift to public transit. The Supplemental Draft EIS cites no evidence or research data from other major American metropolitan areas which have installed exclusive or semi-exclusive lanes to support this assertion or to indicate whether such switches are made willingly or unwillingly. Is the City Administration actually proposing that we pursue a particular course of action impacting the way in which people behave without knowing what the new behavior patterns will be?

The failure of the Supplemental Draft EIS to address fully a fundamental premise underlying the proposed BRT, namely, whether or not eliminating traffic lanes for motor vehicles will result in people shifting their travel trips from private automobiles to public transit, whether willingly or unwillingly, makes the Draft a deficient and inadequate document, which should be rejected

In conclusion, we strongly favor improved public mass transit for Oahu residents. We believe, however, that the questions we and others have raised and are raising need to be resolved, and not just swept under the table, before proceeding with implementation of the first phase of the BRT.

Sincerely yours,

Tom Dinell
Consultant to E Noa Corporation

Cc: Leslie T. Rogers, Regional Administrator
Region IX, Federal Transit Administration

DEPARTMENT OF TRANSPORTATION SERVICES

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November 13, 2002

TPD11/00-05384R
TPD5/02-01859R

Mr. Tom Dinell
Consultant to E Noa Corporation
Pier 31
791 North Nimitz Highway
Honolulu, Hawaii 96814

Dear Mr. Dinell:

Subject: Primary Corridor Transportation Project

This responds to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your October 5, 2000 letter, your October 10, 2000 letter, your oral testimony at the October 12, 2000 public hearing, your October 26, 2000 oral testimony at the Special Transportation Committee meeting, your October 26, 2000 letter, your November 6, 2000 letter, and your November 14, 2000 letter regarding the MIS/DEIS. Part B responds to your oral testimony at the April 20, 2002 public hearing and your May 7, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *Generally speaking, we think that the recommended Bus Rapid Transit Alternative is the way to go.*

   Response: Comment noted.

2. *Does it make sense to move buses to Kalakaua Avenue and eventually have an exclusive lane on that Avenue?*

   Response: Prior to selection of Kalakaua and Kuhio Avenues as the Locally Preferred Alternative route in Waikiki, DTS analyzed a variety of alternate routes including: (1) two-direction service on Kuhio Avenue; (2) a Kuhio Avenue-Ala Wai Boulevard BRT couplet; (3) a Kalakaua Avenue-Ala Wai Boulevard BRT couplet; and (4) turning back BRT service at or near Saratoga Road and Kalakaua Avenue. None of these alternatives provide anywhere as good a service to residents and employees in central Waikiki as the Refined LPA route which uses Kalakaua Avenue.

   Since publication of the MIS/DEIS, the City has worked with the Waikiki Working Group and other interested parties in the Kalakaua and Kuhio Avenue corridors to redesign the BRT in Waikiki to minimize impacts on vehicular traffic on both streets and to maximize opportunities for widening sidewalks on Kuhio Avenue. Changes include allowing tour buses and right turning vehicles to share the BRT lane on Kalakaua Avenue, and providing for a minimum of a combined eight feet of sidewalk widening on one or both sides of Kuhio Avenue. As shown in FEIS Table 4.2-7, the impacts of the BRT on traffic operations in Waikiki will not be significant.

3. *Has the possibility of restricting Kuhio Avenue to transit vehicles and commercial vehicles, including tour buses and trolleys, been considered.*

   Response: Because Kalakaua Avenue and Ala Wai Boulevard are one way streets, Kuhio Avenue is critical in providing local access to businesses and residences. Kuhio Avenue also serves as a way of going around the block to access properties on the one-way cross streets. Keeping at least one lane of traffic in each direction on Kuhio Avenue for general purpose traffic has been a goal in planning for the BRT in Waikiki.

4. *Would not such an approach allow the widening of the present abysmally narrow sidewalks on Kuhio, contribute to a pedestrian orientation for Waikiki, result in an attractively landscaped Kuhio Avenue and reduce the use of Waikiki as a throughway for motor vehicles?*

   Response: An alternative approach to enable sidewalk widening while accommodating the BRT, private buses, freight loading, and automobiles has been developed and is part of the Refined LPA. (See Preliminary Engineering drawings in Appendix B).

5. *How would shared use of an exclusive lane work? Can it work? If the time between the planned tram vehicles in Waikiki is four minutes, will it be feasible for tour buses and trolleys to share that lane, especially if these vehicles are engaging in loading and unloading passengers?*

   Response: Existing or future pullouts along these streets will allow tour buses and trolleys to load/unload without interfering with BRT operation since the BRT will use separate stops. In the event that a trolley or tour bus blocks the BRT curb lane, the BRT vehicle can simply go around the stopped vehicle in the adjacent lane.

6. *If it is impractical for tour buses and trolleys to use the exclusive curb lane, where will they go to load and unload passengers? Would it not be inviting serious accidents to board and let passengers off in a non-curb lane? Has the City and County Administration engaged in sufficient consultation with private operators concerning the use of a shared lane?*

   Response: Through community outreach efforts including working with members of the Hawaii Transportation Association which represents private freight and passenger carriers, the sub area Working Groups, the Waikiki Improvement Association, and others, DTS has developed a plan which relocates the BRT to curb lanes in Waikiki that will be shared with private buses and trolleys. The revised plan minimizes direct impacts on passenger and freight loading zones, and, in the event of unavoidable adverse impacts, identifies alternate loading locations for all businesses along the BRT route. There will not be any measurable impact to businesses due to the loss of any loading zones.

7. *What consideration has been given to the impact of the proposed BRT Alternative on the economic viability of private transportation companies operating in Waikiki?*

   Response: FEIS Section 5.1.5 describes the potential impacts on private transportation providers in Waikiki.

   The travel market served by private operators such as taxis, shuttles, etc., is distinctly different from that serviced by the Refined LPA. The travel market serviced by private operators would still need these services even with implementation of the Refined LPA. Existing private transit services are oriented to the visitor market and either take people door-to door, take them on tours with

narration, or transport them in a vehicle designed to appeal to this market. The BRT system is designed to serve trips by residents and workers not tourists and offers none of the above features. Just as today some visitors may find it advantageous to take the local bus system and/ or BRT for certain of their trips. The tourists expected to use the public transit system with the BRT is forecast to be no greater proportionally than today (i.e., less than 10-15 percent of the total daily boardings).

Additionally, implementation of the PCTP, including reconfiguration to a hub-and-spoke bus system, would provide many opportunities for privatization. The concept of the hub-and-spoke bus system is circulator buses collecting riders from certain routes "spokes" and dropping them off at various "hubs" in the community located along the main transit spine. There may be opportunities for circulator routes to be operated by privately owned transportation providers.

There would also be opportunities at transit stops for private development to provide various types of retail establishments to serve transit users and the general public.

8. *What consideration has been given in the MIS/Draft EIS to the appropriate division of labor between the public transit system and private sector transportation providers?*

   Response: See response to comment #7.

9. *If some of the private companies were to be driven out of business as a consequence of implementing the BRT Alternative, what would be the impact on City and County and State tax revenues? Is not a potential loss of public revenues a matter that should be considered in the MIS/Draft EIS or in another actionable document prior to adoption of the MIS/Draft EIS?*

   Response: FEIS Section 5.1.5 describes potential impacts on private transportation providers in Waikiki. No impacts to private companies are forecast, therefore no loss in City and County tax revenues are expected.

10. *What consideration has been given to the equitable division of operating costs between the riders and the taxpayers? Is there some ratio that makes sense?*

    Response: The establishment of transit operating budgets and the setting of fares is a prerogative of the City Council. The FEIS assumes that the farebox recovery ratio (i.e. the percentage of operating expenses covered by fares) for the future transit system, including the BRT, will remain at about the level that has been set by City Council policy in Resolution 00-29, CO-1, wherein a minimum of 27 percent and a maximum of 33 percent of the cost of operating the bus system should come from farebox revenue.

11. *If local taxpayers are underwriting a substantial share of the operating costs, does it make any difference if the rider is a local resident, a mainland visitor, or a foreign visitor? Does the City and County have data showing the numbers of riders in each category at present and as projected under the BRT Alternative? Is not the equity issue a fundamental matter that should be addressed in the MIS/Draft EIS or in another actionable document prior to adoption of the MIS/Draft EIS?*

    Response: The City and County of Honolulu has data from the most recent on-board bus survey (1991) that distinguishes transit trips by local residents from non-resident trips (non-resident trips accounted for 11.4% of total transit trips in the survey). The survey did not distinguish non-

resident trips by home location of the non-resident, so non-resident trips include trips by residents of Neighbor Islands, mainland visitors and foreign visitors. For the 2025 Refined LPA forecast, non-resident trips account for around 10 percent of all projected transit trips. Operating costs for the Refined LPA, as for the other alternatives, would be paid for by fare revenues collected from residents and non-residents and by tax revenues generated by resident and non-resident economic activity.

12. *Is there not a serious problem inherent in approving an MIS/Draft EIS and committing ourselves to a major transportation alternative without first resolving some of the basic public policy issues not explicitly addressed in that document?*

    Response: This is too vague a comment to respond to. It does not identify any specific public policy issues that were not addressed in the MIS/DEIS.

13. *Generally speaking, we think that the recommended Bus Rapid Transit Alternative is the way to go.*

    Response: Comment noted.

14. *Does it make sense to move buses to Kalakaua Avenue and eventually have an exclusive lane on that Avenue?*

    Response: See response to comment #2.

15. *If the possibility of restricting Kuhio Avenue to transit vehicles and commercial vehicles, including tour buses, trolleys and taxis, has been considered and discarded, that fact is neither stated nor documented in the MIS/Draft EIS.*

    Response: See responses to comments #2, #3, and #4.

16. *Would not a restricted access to Kuhio allow the widening of the present abysmally narrow sidewalks on along that Avenue, contribute to a pedestrian orientation for Waikiki, result in an attractively landscaped Kuhio Avenue and reduce the use of Waikiki as a throughway for motor vehicles? I could not find any place in the MIS/Draft EIS where such questions are discussed.*

    Response: See response to comment #4.

17. *The MIS/Draft EIS does not describe how shared use of an exclusive lane in Waikiki would work? Can it work? If the time between the planned tram vehicles is four minutes, will it be feasible for tour buses and trolleys to share that lane, especially if these vehicles are engaging in loading and unloading passengers?*

    Response: See response to comment #5.

18. *If it is impractical for tour buses and trolleys to use the exclusive curb lane, where will they go to load and unload passengers? Would it not be inviting serious accidents to board and let passengers off in a non-curb lane? Has the City and County Administration engaged in sufficient consultation with private operators concerning the use of a shared lane? I could not find any place in the MIS/Draft EIS where such questions are discussd.*

    Response: See response to comment #6.

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19. *Does the MIS/Draft EIS consider what the impact of the proposed BRT Alternative will be on the economic viability of private transportation companies operating in Waikiki?*

    Response: See responses to comments #7 and #9.

20. *Does that document consider the appropriate division of labor between the public transit system and private sector transportation providers?*

    Response: See response to comment #7.

21. *If some of the private companies were to be driven out of business as a consequence of implementing the BRT Alternative, what would be the impact on City and County and State tax revenues? Is not a potential loss of public revenues a matter that should be considered in the MIS/Draft EIS or in another actionable document prior to adoption of the MIS/Draft EIS? I could not find any place in the MIS/Draft EIS where such questions are discussed.*

    Response: See response to comment #9.

22. *What consideration has been given in the MIS/Draft EIS to the equitable division of operating costs between the riders and the taxpayers? Is there some ratio that makes sense?*

    Response: See response to comment #10.

23. *If local taxpayers are underwriting a substantial share of the operating costs, does it make any difference if the rider is a local resident, a mainland visitor, or a foreign visitor? Does the City and County have data showing the numbers of riders in each category at present and as projected under the BRT Alternative? Is not the equity issue a fundamental matter that should be addressed in the MIS/Draft EIS or in another actionable document prior to adoption of the MIS/Draft EIS? I could not find any place in the MIS/Draft EIS where such questions are discussed.*

    Response: See response to comment #11.

24. *What are the opportunity costs of using general obligation bonds to fund a portion of the cost of building the BRT system? What projects will have to be forgone if we use GO bonds to fund capital BRT costs while maintaining the current level of GO bond funding of the capital budget? I could not find any place in the MIS/Draft EIS where such questions are discussed.*

    Response: Table 6.1-13 of the FEIS provides the annual amount of GO bonds required for BRT. The amount of GO bonds is equal to the annual opportunity cost. The total of $369.9 million is spread over 14 years, ranging from a low of $5.3 million to a one time high of $49.9 million. Although the total GO bond amount is lower in the DEIS, the opportunity cost would be higher since the $320 million would have been concentrated in four years, at an annual amount of $20 million, $115 million, $130 million and $55 million. Since the number of years bonds are issued is increased, the new GO bond numbers in the FEIS represent a significant decrease in the annual amount and leave considerable amounts for other major projects, all within the City's Debt and Financial Policies as passed by the City Council in April, 2002.

    It is not possible nor within the scope of the EIS process to identify the actual projects that would not be funded on an annual basis but for the funds being used for Transit. The City Administration and Council would need to make those choices as part of the budget process, as they would for any other capital budget proposal.

25. *Is there not a serious problem inherent in approving an MIS/Draft EIS and committing ourselves to a major transportation alternative without first resolving some of the basic public policy issues not explicitly addressed in that document?*

    Response: See response to comment #12.

26. *Generally speaking, we support the BRT alternative.*

    Response: Comment noted.

27. *First, in Waikiki, it does not look at the possibility of using Kuhio Avenue as an exclusive road for commercial vehicles, including the bus or the tram. And that may or may not be a reasonable possibility, but at least it should be examined. And in this document, it is not looked at.*

    Response: See responses to comments #2, #3, and #4.

28. *The second area is that there will be an exclusive lane, according to the document, Waikiki, and that this exclusive lane will be shared with commercial vehicles, tour buses and trolleys. Would this work with a four-minute lead time with unloading of passengers from the bus, the tour buses? Is this going to work? And has there been sufficient examination of this question? And as best as I can tell, it is not examined in any detail in the MIS/DEIS document.*

    Response: See response to comment #5.

29. *The third is that this proposed system is going to have some impact on private transportation companies on their economic viability, and some may go out of business, and there may be a reduction in City and County and State tax revenues. Maybe that won't occur. But the question isn't examined in this document anywhere that I can find.*

    Response: See responses to comments #7 and #9.

30. *Fourth, there's some question of equity in terms of how much the riders should pay and how much the taxpayer should pay in terms of operating costs. This is an important question, because our lines serve, not just residents, but visitors as well from the mainland and from overseas. And this is a question that, as far as I can tell, is not examined in the EIS/MIS document.*

    Response: See response to comment #10.

31. *Finally, there's question of opportunity costs when we use the City general obligation bond funds to fund this system. And we're talking about a level of funding from G.O. bonds so we will not increase our debt. But what are the projects that are not going to be funded because we are going to be funding this project? The matter of the opportunity costs has not been examined in this document.*

    Response: See response to comment #24.

32. *Generally speaking, we think that the recommended BRT system is the way to go. We have a number of questions but this evening, however, I wish to focus on the proposed tram alignment in Waikiki and recommend an alternative to the use of Kalakaua Avenue which I think would be wise to consider.*

    Response: Comment noted.

33. *Murray Towill's already outlined some of the problems that would occur on Kalakaua and what I'm going to suggest is consideration of the possibility of creating a beautiful well-landscaped pedestrian transport mall on Kuhio Avenue allowing us to use one project to move multiple Waikiki initiatives ahead simultaneously.*

    Response: See responses to comments #2, #3, and #4.

34. *We need to revitalize Kuhio which is currently a kind of blot on Waikiki. We need to contribute to a pedestrian-friendly Waikiki. We need to reduce through traffic in Waikiki and we need to ensure the rapid movement of trams, City buses and tour buses and trolleys*

    Response: Since publication of the MIS/DEIS, the City has worked with the Waikiki Working Group and other interested parties in the Kalakaua and Kuhio Avenue corridors to redesign the BRT in Waikiki to minimize impacts on vehicular traffic on both streets and to maximize opportunities for widening sidewalks on Kuhio Avenue. Changes include allowing tour buses and right turning vehicles to share the BRT lane on Kalakaua Avenue, and providing for a minimum of a combined eight feet of sidewalk widening on one or both sides of Kuhio Avenue. Appendix B shows the proposed configuration for Kuhio Avenue. As shown in FEIS Table 4.2-7, the impacts of the BRT on traffic operations in Waikiki will not be significant.

    The BRT is meant to complement the local bus service in Waikiki by offering limited stop operations in bus priority lanes. As far as the affects to private tour vehicles and delivery vehicles, the Kalakaua/Kuhio loop maintains auto access as well as passenger and freight loading zones on Kalakaua and Kuhio Avenues.

35. *I described in my written testimony how this mall would work or how I see it could work. But that would take me an extra minute to go into it. I'd be glad to if you give me the minute. I think we can make this pedestrian transport mall on Kuhio precisive, joy and beauty. We can create attractive land, sidewalks, exquisite landscaping, handsome street furniture, good working street lighting.*

    Response: Based on the description provided on your proposed pedestrian-transport mall on Kuhio Avenue, it appears that the Refined LPA can provide the type of pedestrian amenities proposed without having to close the street to all but transit vehicles and pedestrians.

36. *The Primary Corridor Transportation Project is going to absorb a large portion of the City's capital budget requirements for a number of years to come. If we don't include Kuhio Avenue revitalization now, it's going to be a long time in coming. And, I'm hoping that when the Council recommends its preferred alternative, it might include a provision requiring consideration of the creation of the Kuhio pedestrian mall.*

    Response: Pedestrian, landscape, and bus priorities improvements along Kuhio Avenue are part of the first increment of the Refined LPA proposed to be build (the Iwilei to Waikiki branch).

37. *Most of Kuhio, all except about three blocks, is five lanes wide. I would take one lane, split it between mauka and makai and widen those deadly narrow sidewalks on Kuhio. I would take the next lane, mauka and makai, and say that's the place where there would be unloading of passengers and goods. And I'd take the two inner lanes and describe them as the movement lanes. And I would allow private vehicles on Kuhio for discharges of one to two, some places three blocks, to get access to their garages that already exist both hotel and residential in the porte cochere.*

    Response: See first paragraph of response to comment #34.

38. *I think any detailed study would show that creating a pedestrian transport mall on Kuhio would reduce the capacity in Waikiki to handle vehicles and particularly through traffic. And I think that's why it needs to be studied in some detail. But, I think one of the objectives is to make Waikiki a pedestrian friendly place that this will contribute to that end.*

    Response: See responses to comments #2, #3, and #4.

39. *Generally speaking, we think that the recommended Bus Rapid Transit Alternative is the way to go.*

    Response: Comment noted.

40. *This evening, however, I wish to focus solely on the proposed tram alignment in Waikiki and recommend an alternative to the use of Kalakaua Avenue. Establishing an exclusive lane on Kalakaua, even if tour buses and trolleys are permitted to use that lane, will give rise to multiple problems.*

    Response: See response to comment #2.

41. *Creating a beautiful, well-landscaped Pedestrian-Transport Mall on Kuhio Avenue allows us to use one project to move multiple Waikiki initiatives forward simultaneously:*
    - *revitalize Kuhio, which currently is a blot on Waikiki;*
    - *contribute to a pedestrian-friendly Waikiki;*
    - *reduce through vehicular traffic in Waikiki, and;*
    - *assure the rapid movement of the Tram, City buses and tour buses and trolleys in Waikiki.*

    Response: See responses to comments #3, #4, and #5.

42. *Widen both the mauka and makai sidewalks by approximately six feet each (except in the two or three blocks where Kuhio is only four lanes wide), using the Local Motion and Nike Town sidewalks as models where appropriate.*

    Response: See first paragraph of response to comment #34.

43. *Restrict vehicular traffic on the Kuhio Pedestrian-Transport Mall to the CityTram and buses, tour buses and trolleys, taxis and other commercial vehicles*

    Response: See responses to comments #3 and #4.

44. *Allow passenger vehicles on the Mall for only one or two block lengths for gaining necessary access to or egress from hotel and residential parking areas and hotel port cocheres.*

Response: See responses to comments #3 and #4.

45. *Use the mauka and makai lanes for loading and unloading passengers from the Tram, tour buses and trolleys and taxis and cargo from commercial vehicles.*

Response: The proposed concept on Kuhio Avenue is to use turnouts for passenger and freight loading. This will allow for additional sidewalk widening where loading turnouts are not required.

46. *Use the mauka center lane for movement of allowed vehicles in the Ewa direction and the makai center lane for movement of allowed vehicles in the Diamond Head direction.*

Response: This is consistent with the Refined LPA.

47. *Create a tram turnabout at the Diamond Head end of Kuhio by acquiring the vacant lot on the makai side and/or a small portion of Jefferson School on the mauka side.*

Response: Taking these properties is not necessary with the Refined LPA.

48. *Make the Pedestrian-Transport Mall a place of joy and beauty by creating attractive sidewalks, exquisite landscaping, handsome street furniture and good looking street lighting and inviting private businesses to make their establishments equally attractive.*

Response: See response to comment #35.

49. *The Primary Corridor Transportation Project is going to absorb a large portion of the City's capital budget capacity for at least ten years. If we do not use this Project to revive Kuhio Avenue now, it is unlikely that City capital improvement funds will be available for such a purpose anytime in the near future.*

Response: See response to comment #36.

50. *We recommend that when the Council selects the preferred alternative that they include a proviso requiring consideration of the creation of a Kuhio Pedestrian-Transit Mall as an alternative to the proposed Kalakaua/Kuhio alignment.*

Response: The City Council selected the Kalakaua/ Kuhio Loop as the preferred alignment.

51. *Generally speaking, we think that the recommended Bus Rapid Transit Alternative is the way to go.*

Response: Comment noted.

52. *The crucial element for the private transportation companies serving the visitor industry is service. A reputation for inadequate service is likely to lead to fewer visitors, which would have serious consequences for the visitor industry and in turn all of Hawaii including government. Has the MIS/Draft EIS taken into consideration the convenience of the visitors who are served by the private transportation carriers?*

Response: Based on analysis of potential impacts on private transportation providers in Waikiki as discussed in FEIS Section 5.1.5, private transportation providers will not be effected by the Refined LPA since they service different travel markets. Visitors will still be able to use the services of private transportation carriers.

53. *Does it make sense to move City buses to Kalakaua Avenue? Why is it being suggested that they be moved?*

Response: See response to comment #2.

54. *Will the concept of having the BRT trams share the lane with private tour buses and trolleys work? Will private tour buses and trolleys be allowed to stop to load and unload passengers in the shared lane? Would not such loading unloading operations tend to interfere with the timely movement of the frequent BRT trams?*

Response: See response to comment #5.

55. *If such a situation arises, is it not likely that curbside loading and unloading of private tour buses and trolleys along the makai lane of Kalakaua would be banned? If it is impractical for private tour buses and trolleys to share the exclusive curb lane, then were would the private tour buses and trolleys go? Would it not be inviting serious accidents to board and let passengers off in the mauka lane or a non-curb lane?*

Response: The Refined LPA has a semi-exclusive makai curb BRT lane on Kalakaua Avenue explicitly to allow sharing with buses and trolleys. There is no need to relocate tour buses or trolleys to the mauka lane.

56. *Has the possibility of creating a Pedestrian-Transit Mall along Kuhio Avenue, restricted to City buses and trams and commercial vehicles, including tour buses, trolleys, taxis and limousines, and allowing limited private vehicle access to garages and hotel port cocheres, been considered? Would not restricted access to Kuhio allow for the widening of the present abysmally narrow sidewalks along that Avenue, contribute to a pedestrian orientation for Waikiki, result in an attractively landscaped Kuhio Avenue, reduce the use of Waikiki as a throughway for motor vehicles and facilitate accomplishing two major capital-intensive endeavors with a single project?*

Response: See responses to comments #3, #4, #5 and #6.

57. *Has another alternative, namely, moving the BRT tram Diamond Head on Kuhio and Ewa on Ala Wai Boulevard been examined?*

Response: In response to comments by the Waikiki Working Group, a Kuhio Avenue-Ala Wai Boulevard Loop as proposed was evaluated. The problems with this concept are: 1) the additional walking and/or ride time for the majority of BRT users since it is further away from the concentration of destinations along Kalakaua Avenue, and 2) need for all users to cross Ala Wai Boulevard when going to or from stops on this street (This is because Ala Wai Boulevard has development on only one side of the street).

58. *What is the impact of the proposed BRT Alternative on the economic viability of private transportation companies operating in Waikiki?*

Response: See response to comment #7.

59. *What is the appropriate division of labor between the public transit system and private sector transportation providers?*

Response: See response to comment #7.

60. *If some of the private companies were to be driven out of business as a consequence of implementing the BRT Alternative, what would be the impact on City and County and State tax revenues? Does not Federal law require that in the planning of new transportation programs, to be financed from federal funds, consideration be given to preserving and utilizing existing transportation facilities, both public and private?*

Response: See response to comment #9. DTS has no intent to negatively affect private bus companies, and to the contrary is proposing improvements that will benefit private companies.

61. *Furthermore, does not federal law require that in planning such new systems overall social, economic, energy and environmental impacts be considered (underlining added)?*

Response: Yes, and these are all presented in the MIS/DEIS and FEIS Chapters 3 and 5.

62. *What consideration has been given to determining an equitable division of operating costs between riders and taxpayers? Is there some ratio that makes sense? Is the current 1:3 ratio the proper ratio? Is not the ratio closer to 1:1 for most mainland municipal transportation systems?*

Response: See response to comment #10. According to the 1998 National Transit Database, Honolulu's farebox recovery ratio (percentage of operating costs paid for by farebox revenues) was 27.8 percent (including TheBus and TheHandi-Van services). In 2001 the City Council passed a resolution requiring that fares cover at least 27 percent of the bus system operating and maintenance costs. The national average for urbanized areas between 200,000 and 1,000,000 in population is 24.9 percent.

63. *If local taxpayers are underwriting a substantial share of the operating costs, does it make any difference if the rider is a local resident, a mainland visitor, or a foreign visitor? Does the City and County have data showing the numbers of riders in each category at present and as projected under the BRT Alternative? Is not the equity issue a fundamental matter that should be addressed at this time?*

Response: See response to comment #11.

64. *What are the opportunity costs of using general obligation bonds to fund a portion of the cost of building the BRT system? What projects will have to be forgone if we use GO bonds to fund capital BRT costs? Is it not possible to review the CIP appropriation bills for the past three years and prepare a fairly accurate list of the projects that will not be undertaken during the construction of the BRT, given the commitment to level CIP funding and current bond limits? Is making such a list public an essential part of an open evaluation process that allows citizens to make informed judgments?*

Response: See response to comment #24. The three peak years for issuing bonds are FY 2004-2006, in the amounts of $45.7 million, $49.9 million, and $46.6 million, respectively. . This cash flow projection reflects a conservative estimate that is actually more conservative than the City's current debt authorization. No known existing projects will need to be deferred, since the

financing for these have already been accounted for. One cannot guess about future projects by virtue of reviewing previous CIP lists. In the FEIS, projections of GO bonds through FY 2008 were provided by the Department of Budget and Finance. Final financing decisions are a policy choices made by the City Council at the time a budget is approved.

65. *Is the City involved in a basic conflict of interest? Can it be both a regulator, creating a level playing field for all private operators, and an entrepreneur, operating a highly subsidized public transit system, without getting these two roles confused? Will not the City's desire to promote the well-being of its own enterprise take precedence over other choices in a manner that will be detrimental to privately owned, tax-paying transportation businesses? Are there not already examples of the City using its privileged position as policy-maker and entrepreneur to compete unfairly with privately owned transportation companies...?*

Response: The City's involvement in being the local sponsor for the BRT project is not a conflict of interest with the City's responsibility to implement an efficient transportation system that enhances mobility, reduces travel time and improves the quality of life for Oahu's residents.

The City Charter in assigning roles and responsibilities recognizes that the City can be a regulator, fairly overseeing private operators in addition to operating the public bus system. Since the travel markets served by private operators such as taxis, shuttles, etc., are distinctly different from that served by the BRT, private operators will still need to be serve their current markets even with implementation of the Refined LPA.

Implementation of the PCTP including implementation of the hub-and-spoke bus system provides many opportunities for privatization. The concept of the hub-and-spoke bus system includes circulator buses collecting riders from certain routes "spokes" and dropping them off at various "hubs" in the community located along the main transit spine. There may be opportunities for the circulator routes to be operated by privately owned transportation providers.

There would also be opportunities at the transit stops for private development to provide various types of retail establishments to serve the transit users and the general public.

66. *How precise are the estimates of costs, revenues and ridership and other projections ten and twenty years hence, which are put forth in the MIS/Draft EIS? Is there not a margin of potential error in such projections? If so, what is the margin of error that applies to each class of data? With what degree of accuracy can a ridership of 333,000 trips per day be projected for the BRT Alternative in the year 2025? How accurate is the figure of $1,060,300,000 capital costs over 25 years for the BRT Alternative (expressed in 1998 dollars)?*

Response: The cost estimate accuracy is +or-15 percent. The revenue estimates from federal formula grant sources are very precise, based on actual authorized amounts in the given years. For the years beyond the authorized amounts, the formula grant numbers are based on increases that are less than the historical trend. Estimates of revenues from the New Starts program are based on the discussions with federal officials and Hawaii Congressional members and their understanding of what would be realistically available. The federal highway fund dollars are based on a shared amount of the total funds received by the State, and the actual draw down that has occurred for these funds by various projects. General Obligation Bonds as a revenue source are estimated based on a formula that balances the obligated and current debt, and ensuring that there is sufficient debt capacity for other City projects on a year-to-year basis.

The ridership forecasts are based on population and employment projections adopted by the Oahu Metropolitan Planning Organization and use of state-of-the-art travel demand models. The travel demand models have been calibrated against current ridership, and reviewed. These steps result in the ridership forecasts being as accurate as they can be. Any uncertainty in the ridership forecasts applies equally to the No-Build, TSM, and Refined LPA Alternatives. Thus, the ridership forecasts are most reliable when used for relative comparisons.

67. *The E Noa Corporation is ready to work with you and others in refining the BRT alternative as it relates to Waikiki.*

Response: Thank you for your participation in the Waikiki Working Group and other public forums.

68. *Creating a beautiful, well-landscaped pedestrian-Transport Mall on Kuhio Avenue would allow the City to use one project to move multiple Waikiki initiatives forward simultaneously:*
- *revitalize Kuhio Avenue, much of which is currently a blot of Waikiki,*
- *contribute to a pedestrian-friendly Waikiki,*
- *reduce through vehicular traffic in Waikiki, and*
- *assure the rapid movement of the Tram, City buses and tour buses and trolleys in Waikiki.*

Response: See responses to comments #3, #4, and #5.

69. *The Mall, in general terms, would work this way:*
- *Widen both the mauka and makai sidewalks by approximately six feet each (except in the two or three blocks where Kuhio is only four lanes wide), using the Local Motion and Nike Town sidewalks as models where appropriate.*
- *Restrict vehicular traffic on the Kuhio Pedestrian-Transport Mall to the City Tram and buses, tour buses and trolleys, taxis and other commercial vehicles.*
- *Allow passenger vehicles on the Mall for only one or two block lengths for gaining necessary access to or egress from hotel and residential parking areas and hotel port cocheres.*
- *Use the mauka and makai lanes for loading and unloading passengers from the Tram, tour buses and trolleys and taxis and cargo from commercial vehicles at designated locations.*
- *Use the mauka center lane for movement of allowed vehicles in the Ewa direction and the makai center lane for movement of allowed vehicles in the Diamond Head direction.*
- *Create a tram turnabout at the Diamond Head end of Kuhio by acquiring the vacant lot on the makai side and/or a small portion of Jefferson School on the mauka side.*
- *Make the Pedestrian-Transport Mall a place of joy and beauty by creating attractive sidewalks, exquisite landscaping, handsome street furniture and good looking street lighting and inviting private businesses to make their establishments equally attractive.*

Response: See responses to comments #3, #34, #35, and #45.

70. *The above bullets describe in general terms how a Kuhio Avenue Pedestrian-Transit Mall might work. Clearly a systematic planning study is required to flesh out: (1) the details of how the Mall would operate, including specifying how traffic would move onto, off of and across Kuhio; and (2) estimates of the resulting vehicular traffic load on Kalakaua Avenue and Ala Wai Boulevard.*

Response: With the Refined LPA, Kuhio Avenue will be accommodating mixed-traffic in addition to a shared BRT lane.

71. *The Primary Corridor Transportation Project will absorb a large portion of the City's capital budget capacity for at least ten years. If the City does not use this Project to revive Kuhio Avenue now, it is unlikely that City capital improvement funds will be available for such a purpose anytime in the near future.*

Response: See response to comment #36.

72. *We generally support the intent of Resolution 00-249 relating to the selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project. We have, however, a number of questions, which require attention and which are not addressed or adequately considered in the MIS/Draft EIS. We also are offering language for a friendly amendment to the Resolution.*

Response: Comment noted.

73. *We have listed our questions in our November 6, 2000, [letter] to Cheryl Soon, Director of the Department of Transportation Services. That letter and an addendum thereto describing how a Pedestrian-Transit Mall on Kuhio Avenue might work are attached to this testimony. Our questions relate to:*
- *The nature of the Visitor industry;*
- *The Shared Lane on Kalakaua Avenue;*
- *A Pedestrian-Transit Mall on Kuhio Avenue;*
- *Economic Viability of Private Transportation Companies;*
- *Equitable Division of Operating Costs;*
- *Opportunity Costs of Using General Obligation Bonds*
- *Competing with Privately Owned Transportation Companies;*
- *Statistical Precision.*

We hope you will take time to study our questions and secure responses to them before you take final action on Resolution 00-249.

Response: Comment noted. Your comments have been taken into account.

74. *Finally, we urge you to amend the first "Be it Further Resolved" clause of the Resolution by adding the following words at the end of that clause: "provided that consideration is given to realigning the transit spine in Waikiki so as to avoid using Kalakaua Avenue." If such a proviso is not added to the Resolution, we urge you to incorporate such a request for consideration of the alignment in Waikiki in your Committee Report.*

Response: See response to comment #50.

Part B – SDEIS Comments

75. *I'm speaking today on behalf of the E-Noa Corporation, a private passenger transportation company. Let me make it clear that we strongly support an excellent mass transit system for Oahu residents.*

Response: Duly noted.

76. *And today I want to focus on some of the shortcomings in the SDEIS. The SDEIS implies that the Waikiki Working Group, which was not convened until August of 2001, completed its work in October 2001. For reasons that are hardly persuasive, there were no meetings of the Waikiki Working Group from October 2001 to April 9, 2002, at which time, the members were informed that that was their next to last meeting.*

Response: The SDEIS Appendix A, Section A.2.1, states that the working groups were formed in 2001 and at the time the SDEIS was published the Waikiki Working Group had had three meetings. FEIS Appendix A reflects the other Waikiki Working Group meetings on April 6th and 22nd, 2002. Working Groups will be reconvened during the next phase (final design) of the project.

77. *The SDEIS states that no capital projects will be deferred as a result of selecting the Refined BRT Alternative. It's hard to imagine, however, that if one is spending money on one project that it has no impact on the availability of funds for other projects.*

Response: The FEIS has clarified the statement to indicate that there are no presently known major capital improvement projects that will need to be deferred as a result of funds being used to implement the Refined LPA.

78. *Three, the SDEIS states that the delay to motorists – and I quote – "The delay to motorists is expected to accelerate a switch in travel behavior from automobiles to transit," end of quote. But it provides no research data from other major American metropolitan areas to support this assertion.*

Response: The FEIS corrects this statement so that it is clear that it is not the conversion of lanes that will create the congestion, the congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

There is clear evidence from numerous cities that have implemented enhanced transit systems that a significant number of people will divert from autos to transit when the system provides sufficient time savings and/or reliability. The amount of diversion from autos needed in the primary corridor to realize the ridership forecasts is less than 2 percent.

79. *Fourth, the SDEIS states that 5.5 times as many transit riders are foreseen on the Regional BRT and the local buses as on the In-Town BRT. But then it provides no rationale as to why construction should begin with the in-town portion, as opposed to the Regional BRT, that will serve people who currently have the longest and most time-consuming commutes.*

Response: The In-Town BRT is proposed to proceed ahead of the Regional BRT so that SDOT widening of H-1 can be coordinated with the Regional BRT improvements.

80. *Fifth, the SDEIS shows that the level of service – LOS, in the lingo of the engineers – in Waikiki from Saratoga for the Refined BRT will provide only a slight improvement over the LOS for autos, particularly if the sidewalks along Kuhio are widened as planned. So the question arises, why bother taking the BRT, the In-Town BRT, further than Saratoga?*

Response: Continuing the In-Town BRT around the Kalakaua/ Kuhio Loop is for the convenience of the riders. Terminating service at Saratoga as suggested, without the loop, would on average

result in riders having to walk an extra 16 minutes for Waikiki residents, and 10 minutes extra for Waikiki workers.

81. *The SDEIS provides no data on alternative routings of the In-Town BRT within Waikiki.*

Response: A discussion on alternative routings that were considered for Waikiki has been added to Chapter 2 in the FEIS.

82. *Seven, the SDEIS includes a short section on the economic impact on tour operators, which it provides no research to support the assertions in there.*

Response: The survey of bus riders that was shared with the Waikiki Working Group members and the OMPO travel surveys confirm that the level of usage of the public transit system by non-residents is between 10 and 15 percent overall. This is consistent with the surveys of bus riders done as part of the OMPO model development process.

83. *In conclusion, we strongly favor excellent public mass transit for Oahu residents. The questions we and others have raised need to be resolved, not just swept under the table before proceeding.*

Response: Comment noted. There is no intention of sweeping issues under the table.

84. *The Absence of a Multi-Modal Transportation Plan for Honolulu. There is no current over-all multi-modal transportation plan for Honolulu based on continued use of private vehicle automotive transportation, which supports the automobile within a policy context that provides for mitigating its environmental, resource and movement impacts, while increasing other transportation choices, such as public transit, car-pooling, van-pooling, bicycling, walking, flexible work hours and telecommuting, among other strategies. The Draft Supplemental EIS does refer to the public review drafts of the Primary Urban Center and Ewa Development Plans and to the Oahu Metropolitan Planning Organization's Transportation for Oahu Plan (Top 2025) and to the City's own Islandwide Mobility Concept Plan. All of these are useful documents; particularly the Islandwide Mobility Concept Plan, but none of them is a multi-model transportation plan for Oahu. Transportation in the modern metropolitan community not a matter of private car versus public transit, but rather how to fit all the multiple means of transportation together, as well as mitigating the need for transportation and relating land-use and transportation developments, into an integrated, multi-model transportation plan, as the Islandwide Mobility Concept Plan recognizes.*

The absence of multi-modal transportation, within which the proposals put forth in the Supplemental Draft EIS fit, makes the SDEIS a deficient and inadequate document, which should be rejected.

Response: The OMPO's Transportation for Oahu Plan, TOP 2025, adopted in April 2001, is Oahu's multi-modal transportation plan. The plan includes highways, public transit, van-pooling, and bicycling projects.

85. *The Failure to Consider a Range of Alternatives Generally. The original MIS/Draft EIS considered three alternatives, namely, no-build, TSM and BRT. (See S.2.1, pp. S-3/4). The fixed rail alternative, whether light or heavy, was not analyzed in detail in the initial MIS/Draft EIS. (See pp 2-2/4, MIS/Draft EIS Primary Corridor Transportation Project, City and County of Honolulu, Department of Transportation Services, August 2000.) The possibility of a right-of-way that might potentially provide a separate grade system for a portion of the transit route was not mentioned in the initial Draft MIS/EIS nor in the SDEIS.*

Response: Chapter 2 of the DEIS and FEIS explains why rail alternatives were dropped after the initial evaluation of a wide range of alternatives. An elevated rail system was rejected by elected officials and the public early on due primarily to it's high cost which would necessitate an increase in taxes, and its unsightliness.

Light rail was rejected after a more detailed examination, once it was determined that a BRT system could achieve virtually all of the benefits of light rail at 35 percent less cost, and with greater operating flexibility to serve the primary corridor.

86. *There is no consideration of the potential for expanding the van pool system nor increasing the use of flexible working hours now expanding the portion of the work force employing telecommuting or other alternative strategies in the SDEIS.*

Response: The OMPO's Transportation for Oahu Plan, TOP 2025 includes a van-pool program element and a travel demand management element.

87. *Perhaps none of these alternative strategies would contribute to easing Honolulu's transportation problems, though that is hard to believe. Perhaps some would turn out to have a low cost-benefit ratio and therefore should not be selected. Not having subjected alternative strategies to serious examination and detailed, objective analysis in the SDEIS makes the SDEIS a deficient and inadequate document, which should be rejected.*

Response: The Primary Transportation Corridor Project is one component of a larger transportation system, as the OMPO Transportation Plan for Oahu Plan, TOP 2025 outlines. Chapter 2 of the FEIS summarizes the broad range of alternatives considered and eliminated during project development.

88. *The Failure to Consider a Range of Alternative in Waikiki. The Draft Supplemental EIS fails to consider a range of alternatives for Waikiki. The route laid out in the SDEIS, namely, Diamond Head on Kalakaua, mauka on Kapahulu and ewa on Kuhio, was the single alternative specified in the original MIS/Draft MIS and is the single alternative put forth in the current supplemental EIS. Three other routes were proposed early in the Fall of 2001 in the Waikiki Working Group, the last of the working groups to be convened.*

Response: The alternative routes that were considered for Waikiki and that were presented to the Waikiki working group are discussed along with the reasons for their rejection in Chapter 2 of the FEIS.

89. *Actually, this working group met first in August 2001 and then once or twice again in the fall and then was recessed by the Department of Transportation Services (DTS). The Waikiki Working group was subsequently reconvened in April 2002. (S 2.2, p. S-5 misstates this chronology.) At its first meeting in April 2002, it was announced by DTS that this would be the next to last meeting of the Waikiki Working Group. The reasons offered by DTS for the long recess were less than totally persuasive.*

Response: The FEIS Summary has been revised to reflect that the Waikiki Working Group met through April 2002.

90. *At the end of this next to last meeting in April, a document was presented by the consultant that showed that none of the alternative Waikiki routes, in their view, was as good as the DTS preferred route. The consultant used a single criterion and data related to that criterion in reaching its conclusion. The single criteria was time convenience to potential passengers in Waikiki. Neither DTS nor the consultant considered any other criteria, such as impact on traffic flow or street life or on rehabilitation of run-down areas or on the uniqueness of Waikiki as an urban resort area or on the economic well-being of businesses serving Waikiki. There was one criterion, selected by DTS and the consultant, and that was it.*

Response: As was presented at the working group meeting, criteria used in the analysis of alternative alignments in Waikiki, included many others besides time or walking distance convenience to BRT users. Other factors considered and presented to the working group were: safety to passengers (e.g. of having to cross Ala Wai Boulevard whenever going to-or-from a BRT stop); impacts to motorists; impacts to private passenger carriers; impacts to freight deliverers; ability to widen and add landscaping along Kuhio Avenue; and, impacts to BRT operations.

91. *With respect to ending the In-Town BRT at Saratoga, the consultant did not consider the possibility of combining a Saratoga Terminus with a Waikiki Circulator, designed to reflect and enhance the unique nature of Waikiki. This analysis could have been conducted using several alternative schemes that varied the routes, the number of stops, and the charges, such as allowing free transfers. In failing to consider this alternative, the SDEIS simultaneously neglects to consider the capital and operating costs of a circulator versus the capital and operating costs of the BRT on the route that DTS had preselected. Since the alternatives were proposed in fall 2001, but data were not provided until April 2002 at the next to last meeting of the Waikiki Working Group, and well after the Draft Supplemental EIS had been issued, the likelihood that there was to be serious consideration of these alternatives was, to say the least, minimal.*

Response: Forcing all BRT passengers to transfer at Saratoga Road to another mode for the trip around the Kalakaua/ Kuhio Loop is unreasonable given that this segment would represent the last 10 percent of their trip.

92. *Furthermore, the Supplemental Draft EIS fails to make clear the justification for spending significant amounts of money on the Waikiki leg of the In-Town BRT beyond Saratoga when the Draft EIS states that the peak hour level of service (LOS) for the Refined BRT and for automobiles beyond Saratoga will be exactly the same, assuming the sidewalks along Kuhio are widened as anticipated. (Table 4.2.7, p. 4-19.) At the Saratoga Road and Kalakaua Intersection, transit will yield a one or two LOS advantage. (Ibid.)*

Response: Continuing the In-Town BRT around the Kalakaua/ Kuhio Loop is for the convenience of the riders. Terminating service at Saratoga as suggested, without the loop, would on average result in riders having to walk an extra 16 minutes for Waikiki residents, and 10 minutes extra for Waikiki workers.

93. *The consultation process in Waikiki was further flawed by DTS's refusal to release to the Working Group members and the public copies of the Mattson Report, which was presented verbally at a fall meeting of the Waikiki Working Group. Mattson and his colleagues interviewed users of TheBus in Waikiki. DTS draws on the Mattson Report to support one of the assertions it puts forth in the Supplemental Draft EIS. (See "Economic Impacts to Tour Bus Operators, pp. 5-19/20.) The Report was commissioned by DTS and paid for using taxpayers' monies and yet DTS to date has not been willing to release the Report nor to explain why it is refusing to release the Report. One can only speculate as to why DTS has sat on the Report and none of the potential reasons reflects well on DTS. It is very difficult to comprehend how refusing to release the Mattson Report contributes to an open and informed participatory review process. One could also raise the question of whether DTS has the legal right to suppress the Mattson Report.*

Response: A copy has been sent to you of the Mattson Sunderland survey data that was shared with the Waikiki Working Group members, which E Noa was a participant.

94. *The failure to examine the alternative routes suggested for Waikiki in a timely, serious and thorough manner using multiple criteria, the inexplicable commitment to continue with the Waikiki leg when it offers almost no improvement in level of service vis a vis the automobile and the suppression of the Mattson Report make the SDEIS a deficient and inadequate document, which should be rejected.*

Response: See responses to comments #88, #90, #91, #92, and #93.

95. *The Economic Impact of the In-Town BRT on the Tour Bus Operators. The Supplemental Draft EIS asserts that the In-Town BRT will not adversely effect the economic well-being of the tour bus operators. (See 5.1.5, pp. 5-19/20) It reports that visitors account for approximately five percent of total daily boardings system wide and between 20% and 25% of boardings in Waikiki. The SDEIS cites OMPO, though it is not clear what OMPO Report the SDEIS is referring to, and the never-released Mattson survey as source documents. It further states that visitor trips are projected to constitute approximately 7.7% or 6,100 of the 79,300 boardings using the In-Town BRT. The section concludes that the number of visitors using the BRT will be no greater proportionately in the future than it is today. It further concludes that, "it is not expected that the tour bus operators will be adversely affected due to the relatively low number of tourists that are expected to chose BRT for their travel needs." No economic analysis is provided to substantiate these conclusions.*

Response: See response to comment #82.

96. *We maintain that the government should not drive legitimate private businesses out of business or reduce their opportunities to engage in business by offering subsidized services that complete with the services offered by those businesses. To do so not only damages private enterprise, deprives employees of work, cuts into tax revenues, but also contributes to Hawaii's reputation as an unfriendly place to do business.*

Response: See response to comment #2.

97. *With In-Town BRT service every four to six minutes along Kalakaua and Kuhio, 21 hours a day, it would simply be phenomenal if the number of visitors using the In-Town BRT did not increase. The City Administration is using taxpayers' money to compete head-on with taxpaying private businesses. Federal Transit Administration Circular C 9300.1A, Section 4, Subsection 9 (a) states in part, "Specifically, FTA is prohibited from providing federal assistance to a governmental body that provides service in competition with, or supplemental to, service currently provided by private transportation company, unless FTA finds that the local transportation program developed in the planning process provides for participation by private transportation companies to the maximum extent feasible."*

Response: See response to comment #7. The BRT will not be competing with the private sector, since it is designed to serve trip patterns of Oahu residents, whereas the private transit services are designed to serve tourists.

98. *To the best of our knowledge, neither DTS nor it consultants has systematically solicited data from tour operators to determine what those in the tour business and related transportation services have concluded would be the impact of the In-Town BRT on their businesses. Further, the Draft*

cites the Mattson Report in support of its assertions but, as noted above, has failed to release the Mattson study so that those impacted by the In-Town BRT in Waikiki might examine that Report.

Response: Several tour bus operators were invited to attend the working group meetings and some attended those meetings and some chose not to attend. The Waikiki and Kalihi bus rider survey data was presented at the respective working group meetings. The Mattson Sunderland Report is available from the DTS.

99. *The Supplemental Draft EIS asserts no damage to the tour operators, but assuming DTS is wrong and there is damage, what recourse would the tour operators have? Could they recover their losses from the City because the assertion in the Supplemental Draft EIS was incorrect? The answer to that question is undoubtedly "no."*

Response: The tour bus industry operates in a competitive environment with significant global influences (most dramatically seen during the Gulf War and immediately after September 11, 2001). These factors have far more influence than the local public transportation system which has been in place for decades. The public transit system is designed to serve Oahu residents, whereas tour bus operators serve the visitor industry.

100. *There is nothing in the Supplemental Draft EIS that provides a guarantee that the City might not increase its number of stops in Waikiki to six or seven or eight. There is nothing in the Supplemental Draft EIS that provides a guarantee that tour operator will be able to continue to share the currently planned semi-exclusive lane along Kalakaua Avenue if the City decides, in its wisdom, at some future date that sharing the lane is interfering with the smooth operation of the In-Town BRT.*

Response: If experience shows that shared operation of the semi-exclusive lanes in Waikiki with private carriers is significantly impeding the operations of the public transit system, the City should be able to take corrective measures to restore the service to an acceptable level. By placing restrictions on the size of buses that can use the lane (e.g. only 30 passengers or greater), the location of stops, and the dwell time permitted, this should not be an issue.

101. *The City's track record demonstrates that the City Administration is not concerned with the economic well-being of the tour operators. The City Administration is currently aggressively competing with the private tour operators by seeking to provide public subsidized transit service to visitors as witness: (1) TheBus Guide for visitors in English in Japanese, with an introduction by the Mayor; (2) the monopoly of Hanauma Bay by TheBus with Route 22 serving visitors almost exclusively, even though multiple ways to protect the fragile Hanauma Bay environment exists other than by establishing a City monopoly on multi-passenger vehicle transportation to and from the Bay; and (c) and planning of the Waikiki leg of the In-Town BRT without adequate consultation with the transportation carrier industry. (See Federal Transit Administration Circular C 9300.1A, Section 4, Subsection 9.)*

Response: The assertions have been refuted both publicly and privately in the past. The bus guide published in Japanese is not produced or paid for by the City. As is the case in most tourist oriented cities, the welcoming by the mayor is provided to all publishers of tourist oriented literature as a gesture of good will, not one of competition. The restrictions placed on private carriers access to Hanauma Bay was done by the City's Department of Parks and Recreation to protect the fragile environment. Route 22 is the "Beach Bus" which serves local residents as well as tourists at stops all along the coast between Ala Moana Center and Sea Life Park. Hanauma Bay is only one of its stops.

102. *The failure of the City to substantiate its assertion that the In-Town BRT will not damage the tour operators economically and the track record of the City in seeking to aggressively compete with private operators further demonstrate that the SDEIS is a deficient and inadequate document, which should be rejected.*

Response: The economic effects to tour bus operators are presented in the SDEIS and FEIS Section 5.1.5. The public transit system is designed to serve the Oahu residents, whereas the tour bus operators serve the visitor industry.

103. *The Financial Implications of BRT. The City is in dire financial straits. The Administration is proposing to balance the operating budget by bond restructuring ($53 million), tapping the Sewer Fund, even though the projected sewer and wastewater capital cost are estimated to rise from $81.4 million in 2002 to $257.9 million 2002, use of the H-Power Fund for underwriting the cost of residential refuse collection ($18 million) and sale of land ($15 million). Furthermore, the City Department of Budget and Fiscal Services projects that annual debt service payments will increase from $104 million in 2002 to $271 million in 2009 based on the assumption that interest on all new debt will be at 5% per annum. As the annual debt service increases, it will become the largest single expenditure item in the City's operating budget.*

Response: Comment noted.

104. *There is almost no possibility that the interest rate on new city debt will remain at 5% per year. Nationally, the basic interest rate is likely to rise from its very low current base as the national economy recovers and the Federal Reserve Bank raises its benchmark interest rates. Further, as Honolulu debt service increases as a portion of the total operating budget and Honolulu's financial position becomes increasingly fragile, there is a very high likelihood that either Honolulu's credit rating will slip, thus increasing the cost of borrowing to the City, or that the property tax rate will need to be raised so as to be able to pay for both debt service and the cost of operating police, fire and other municipal services.*

Response: The financial terms and conditions of the GO bonds assumed in the financial analyses are a 20-year maturity with a 6.25 percent interest rate. The interest rate reflects the Bond Buyer 11 High Grade GO Bond Index. The amount of GO Bond proceeds used as a revenue source on an annual basis was developed in keeping with the City's Debt and Financial Policies as passed by the City Council in April, 2002, leaving significant capacity in any given year for other major capital projects.

105. *The Supplemental Draft EIS provides three assurances, which appear to be based on very shaky foundations, given the City's present and future financial conditions: (1) The BRT can be funded without raising taxes (see S.4, pp. S-15/16); (2) no major capital projects will be deferred as a result of selecting the Refined BRT (see S.4, p. S-18); and (3) the State will pay the estimated $760,000 that it is estimated that it will cost annually to operate the Zipper Lane (see 6.1.2, p. 6-5).*

Response: (1) The financial plan was developed to ensure that the costs would be phased, and would be paid for with a combination of mostly federal and some local revenue sources, in order to ensure that no taxes would need to be raised. (2) The level of GO bond funds used in any given year has been significantly lowered to allow for other major projects. It is possible that the Council may choose to defer authorizing some new projects if they are in the range of $44 to $46 million in Fiscal Years 2004-2006. (3) The Zipper Lane is part of the Interstate highway system. It is a reasonable assumption for a highway component to be paid for with highway funds.

106. *Given the financial situation of the City, as briefly outlined above, the likelihood that the City is not going to have to raise taxes in the near future appears slim indeed. Some portion of the increased taxes will be attributable to the BRT Project, so for the Supplemental Draft EIS to state that taxes will not have to be raised to fund the BRT rings hollow indeed.*

Response: The financial plan was constructed in a way to pay for the project without having to increase taxes to raise revenue for the project.

107. *Some capital projects will undoubtedly be deferred as a result of selecting the Refined BRT alternative since the City money expended on the BRT will not be available to be expended on other CIP projects. The cost of proposed capital projects always exceeds the funds available. If the BRT is funded out of the capital budget, then there will be projects that will have to be deferred or forgotten about.*

Response: There are no known major capital improvement projects that will have to be deferred as a result of priority being given to BRT.

108. *The City in the Supplemental Draft EIS assumes that the State will pay the estimated $760,000 that it is projected that it will cost annually to operate the Zipper Lane, thus reducing potential annual operational costs to the City by that amount. No evidence is provided in the Draft that the State has agreed to or will be willing to assume these costs. To date, the State has not indicated any willingness to fund any of the cost of the BRT. In fact, the MIS/Draft EIS, issued in August 2000, assumed that the State would participate in funding the capital costs of the BRT. (See Table 4-1, p. S-18, MIS/Draft EIS Primary Corridor Transportation Project, City and County of Honolulu, Department of Transportation Services, August 2000.) When the State indicated that it had no plans to assist in funding the BRT, The City stated it would assume the share of the cost initially allocated to the State.*

Response: The State is currently considering the Zipper Lane as a State project. As such, it is not unreasonable to assume that the State would maintain a State project.

109. *The City has included detailed projections of operating costs, capital costs and ridership in the Supplemental Draft EIS. All of these projections are offered as fixed figures. How precise are the estimates of costs, revenues and ridership and other projections ten and twenty year hence, which are put forth in the SDEIS? Is there not a margin of potential error in such projections? If so, what is the margin of error that applies to each class of data?*

Response: See response to comment #66.

110. *With what degree of accuracy can a ridership of 291,900 trips per day be projected for the BRT alternative in the year 2025? (See Table S.6.1, p. S-21.)*

Response: See response to comment #66.

111. *How accurate is the figure of $1,062,500,000 capital costs over 25 years for the BRT alternative (expressed in 1998 dollars)? (Ibid.)*

Response: See response to comment #66.

112. *How trustworthy is the estimate that operating costs will be $180,100,000 when the system is fully operative? (Ibid.)*

Response: Many factors affect the actual operating and maintenence (O&M) costs. Key factors include the operating plan, which determines how much service will be provided; scheduling practices, which are effected by the terms of the labor agreement as negotiated from time to time; labor rates and costs of other inputs such as fuel, tires, etc. The best that can be said is that if the fully-operative service plan were in operation at today's costs, using today's production techniques, and providing the SDEIS level of service, the $180 million cost estimate would be accurate within a percent or two.

As an example of the way in which the factors interact, subsequent to publication of the SDEIS it was decided to study the effect of not building some of the capital improvements, relocating some of the transit centers, and otherwise modifying the service to be provided. The omission of capital investment led to an increase in transit travel times, which in turn resulted in a decline in ridership, which in turn meant that less bus service was necessary. In the course of this analysis, we also updated the O&M cost model to use the cost inflation actually experienced by OTS, which was 2.7% during the two-year period from 2000 to 2002. Earlier estimates had assumed an annual inflation rate of 3.5%. The net effect of all these changes was to reduce the O&M cost to $150 million.

Finally, it must be kept in mind that the costs are presented in current-year (2002) dollars, not year-of-expenditure. The future-year dollar costs can be affected by the rate of inflation actually experienced.

113. *Are not cost-overruns on major capital projects built by governments frequent?*

Response: It is difficult to compare actual costs to planned costs for large complex public works projects since often the scope of the project changes between the planning and construction phases. Often these differences have been mischaracterized in the funds as "cost overruns".

114. *Are not future operating costs of public projects frequently underestimated?*

Response: There has been little systematic investigation of actual vs. projected operating costs for public projects. This is in part due to the fact that operating costs extend over a long time period. In contrast, capital costs of a given project are typically incurred over a shorter time frame, and much nearer to the time at which the estimate is made. In any event, we are not aware of a consistent pattern of operating cost underestimation.

For existing transit modes, the quantities of inputs needed to produce a unit of service are well-known and usually stable in a given setting over fairly long periods of time. However, operating costs involve both quantities and unit prices, and the prices are much more difficult to predict. Factors requiring future projections and influencing the future operating cost include:

- Input costs. Labor costs, for example, are subject to market forces and the outcome (in most cases) of labor negotiations. Fuel prices vary according to market forces and, in some cases, international conditions. Attempting to predict the level of those costs over a future period that may extend twenty years out is necessarily subject to a high range of variability.

- General inflation rates. In the absence of solid information on which to base unit prices a decade and more in the future, estimates stated in year-of-expenditure dollars are usually estimated by assuming a rate of inflation and applying that rate to current-year unit prices. If the actual inflation rates differ from the estimate, so will the future outlays.

For new transit modes with only prototypes in operation, less is known about the quantities of inputs that will be required to operate the service planned for the new mode. Contingencies are usually built into the estimates to allow for un-anticipated extra costs. The STREAM technology is in this category, with some unusual design aspects of both vehicles and power transmission system adding uncertainty to the operating cost estimating process.

In transit system operations, it is common to control operating costs by establishing an operating and maintenance budget for the coming year(s), then adjusting service to fit within the amount of funding expected to be available. If costs exceed estimates, the most basic way to balance the budget is to curtail service. This has happened in a number of transit agencies over time. As a result, services that were part of the service development plan involving a new mode may not have been produced, or produced in lesser quantities than originally programmed. This outcome usually reflects agency decisions based on the budget realities of the year, rather than anything intrinsically flawed in the operating cost estimating process.

115. *Do not projections of future ridership turn out to be overestimates?*

Response: Based on past projects, sometimes ridership estimates have been overestimated, sometimes underestimated, and sometimes matched with actual results.

116. *Why does not the SDEIS offer it long-term projections in terms of ranges, such as high, low, probable?*

Response: It is standard practice in the industry to present ridership forecasts as a single number since they are used for comparison purposes not as absolutes.

117. *Why is not the difficulty of making future projections discussed in the Supplemental Draft EIS and qualifications offered as to the probable accuracy of such estimates?*

Response: See response to comment #116.

118. *And what happens if it turns out that the Supplemental Draft EIS has underestimated capital costs and operating costs and overestimated ridership?*

Response: The operating and capital cost estimates and ridership forecasts were developed using acceptable industry standards.

119. *Who assumes responsibility for the consequences of estimates that prove to be incorrect?*

Response: The City is responsible for the Primary Corridor Transportation Project.

120. *The lack of discussion of the City's current financial situation in the SDEIS, the absence of evidence that that situation has been taken into account in making cost projections, the doubtful nature of the SDEIS statements relating to tax increases, other proposed capital projects and state funding, and the absence of qualification of the estimates of long-term operating and capital costs and ridership projections make the Draft EIS a deficient and inadequate document, which should be rejected.*

Response: Chapter 6 and Appendix E of the FEIS include the project financial analysis which take into account the City's current financial situation. The cost projections and ridership forecasts have all been prepared in accordance with best practices in the industry.

121. Starting with the In-Town BRT? *The City Administration is proposing starting construction with the In-Town BRT rather than with the Regional BRT. The Regional BRT, however, together with local buses, will serve 5.5 times as many riders as the In-Town line (see Table 4.1-4, p. 4-5), will help people who currently have the longest and most time-consuming commute and will result in a time-saving to the users of 17 minutes (Kapolei to downtown) as opposed to three minutes on the In-Town BRT (downtown to Waikiki). (See Table 4.1-6, p. 4-7.) Amazingly, the staging of BRT construction is not discussed in the Supplemental Draft EIS even though it is a critical element of placing the BRT in operation.*

Response: The In-Town BRT is proposed to proceed ahead of the Regional BRT so that SDOT widening of H-1 can be coordinated with the Regional BRT improvements.

122. *Informally, two rationales for proceeding with the In-Town BRT first have circulated. First, it is maintained, as we understand it, that it is important to start with the In-Town BRT first so that when the Regional BRT is constructed, there will be a transit system in-town available to move the riders of the Regional BRT. There is already a system in place, namely TheBus, to move people coming into town on the Regional BRT if it were to be constructed first. It is the Regional BRT that is going to serve the local resident and reduce his or her commute from Kapolei to downtown by 17 minutes. The In-Town BRT will only save that same rider three minutes going from downtown to Waikiki. (Ibid.)*

Response: The In-Town BRT is proposed to proceed ahead of the Regional BRT so that SDOT widening of H-1 can be coordinated with the Regional BRT improvements.

123. *The second rationale that has been mentioned is that the State is said not to be ready to move on making the necessary modifications to the freeway system that are part of the proposed Regional BRT. This matter is not discussed in the Supplemental Draft EIS. It is certainly a matter deserving public discussion and close state-county coordination. There is a real danger, if the difficulties relating to the Regional BRT are not ironed out first, that the In-Town BRT serving 79,000 people (including tourists who constitute approximately 25% of those boarding or deboarding in Waikiki) and saving three minutes of travel time will be built and the Regional BRT serving 459,000 (including those served by local buses), almost all of whom are residents and saving those residents 17 minutes of travel time, will never be built.*

Response: The In-Town BRT will be a viable and valuable asset to transit riders even before the Regional BRT is in place. It will become even more valuable after the Regional BRT and In-Town BRT are interconnected.

124. *The phasing of construction and determining who will be served first and why are critical issues which should be addressed in the Supplemental Draft EIS. The fact that they are not addressed in the SDEIS makes the Draft a deficient and inadequate document, which should be rejected*

Response: Chapter 2 of the SDEIS and FEIS include the project phasing plan.

125. The Move From Private Automobiles to Public Transit. *The Supplemental Draft EIS assumes, and rightly so, that it is important to make mass transit more comfortable and swifter if more people are to be attracted to ride public transit. It further asserts that, "The delay to motorists is expected to accelerate a switch in travel behavior from automobiles to transit." (See S.6.3, p. S-23.) This is a critical assumption, namely that by taking vehicle lanes for exclusive or semi-exclusive use by public transit vehicles, and thus increasing congestion for automobile drivers, that a significant portion of those drivers will willingly, or perhaps unwillingly, shift to public transit. The*

Supplemental Draft EIS cites no evidence or research data from other major American metropolitan areas which have installed exclusive or semi-exclusive lanes to support this assertion or to indicate whether such switches are made willingly or unwillingly. Is the City Administration actually proposing that we pursue a particular course of action impacting the way in which people behave without knowing what the new behavior patterns will be?

Response: The FEIS corrects this statement so that it is clear that it is not the conversion of lanes that will create the congestion, the congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

There is clear evidence from numerous cities that have implemented enhanced transit systems that a significant number of people will divert from autos to transit when the system provides sufficient time savings and/or reliability. The amount of diversion from autos needed in the primary corridor to realize the ridership forecasts is less than 2 percent.

126. *The failure of the Supplemental Draft EIS to address fully a fundamental premise underlying the proposed BRT, namely, whether or not eliminating traffic lanes for motor vehicles will result in people shifting their travel trips from private automobiles to public transit, whether willingly or unwillingly, makes the Draft a deficient and inadequate document, which should be rejected.*

Response: The SDEIS and FEIS in Chapter 4 fully discuss the consequences of converting some lanes to give priority use to transit.

127. *In conclusion, we strongly favor improved public mass transit for Oahu residents. We believe, however, that the questions we and others have raised and are raising need to be resolved, and not just swept under the table, before proceeding with implementation of the first phase of the BRT.*

Response: Comment noted. The questions raised have been answered in the FEIS.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

THE ESTATE OF JAMES CAMPBELL

September 25, 2000

The Honorable Duke Bainum, Chair
and Members of the Transportation Committee
City and County of Honolulu
530 S. King Street
Honolulu, HI 96813

Dear Chair Bainum and Committee Members:

Primary Corridor Transportation Project

I am, Henry Eng, Community Development Manager for The Estate of James Campbell. We speak in support of the Bus Rapid Transit alternative of the Primary Corridor Environmental Impact Statement.

Clearly, the no-build alternative provides inadequate improvements to accommodate planned growth. The Transportation System Management (TSM) alternative, calling for the development of the Hub-and-Spoke System, has been implemented and is working quite well under the present situation. We like its features which provide good linkages between Leeward Oahu, Kapolei and Honolulu. It provides better, faster and more convenient access.

The Bus Rapid Transit (BRT) alternative appears to be a cost-effective way to improve on the TSM features. We do have a few comments with respect to the BRT:

- While improvements are needed to ease congestion to and from Honolulu, job growth in Kapolei also needs to be served. We want to be sure that full consideration is given to maintaining adequate access to and from Kapolei. This is necessary to support approved land use policy, which envisions the development of Kapolei as a job center.

- We also believe that the BRT program should be fully coordinated with the ongoing Ewa Area Regional Transportation Plan (EARTP), which is being developed to address needed road improvements. The implementation of the BRT should not be permitted to negatively impact funding programs for the EARTP since both are needed.

Thank you for the opportunity to present our views.

Very truly yours,

Henry Eng, AICP
Community Development Manager

ms:010020001K19859

[illegible] Kamokila Boulevard, Kapolei, Hawaii 96707 Phone: (808) 674-6672 Facsimile (808) 674-3117 Website: www.Kapolei.com

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Henry Eng, AICP
Community Development Manager
The Estate of James Campbell
1001 Kamokila Boulevard
Kapolei, Hawaii 96707

Dear Mr. Eng:

Subject: Primary Corridor Transportation Project

This is in response to your September 25, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). Your support of the In-Town Bus Rapid Transit (BRT) as the Locally Preferred Alternative (LPA) at the November 14, 2000 Special Transportation Committee Meeting has been duly noted.

1. *We speak in support of the Bus Rapid Transit Alternative of the Primary Corridor Environmental Impact Statement.*

   Response: Comment noted. It is a statement of the commenter's preference for an LPA.

2. *While improvements are needed to ease congestion to and from Honolulu, job growth in Kapolei also needs to be served. We want to be sure that full consideration is given to maintaining adequate access to and from Kapolei. This is necessary to support approved land use policy, which envisions the development of Kapolei as a job center.*

   Response: The Refined LPA includes the Regional BRT system that consists of a new transit center supported by additional local and express bus routes in Kapolei.

3. *We also believe that the BRT program should be fully coordinated with the ongoing Ewa Area Regional Transportation Plan (EARTP), which is being developed to address needed road improvements. The implementation of the BRT should not be permitted to negatively impact funding programs for the EARTP since both are needed.*

   Response: The In-Town and Regional BRT components of the Primary Corridor Transportation Project are included in the most recent update to the Oahu regional transportation plan (TOP 2025). The TOP 2025 also includes Ewa transportation projects, such as Kapolei Interchange and North South Road and Interchange. Funding programs for these and other Ewa transportation projects will not be affected by the Primary Corridor Transportation Project.

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We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Hawaiian Electric Company, Inc. - PO Box 2750 - Honolulu, HI 96840-000

November 1, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Blvd., Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project

We offer these comments on the MIS/DEIS for the Primary Corridor Transportation Project in addition to our comments provided to you in our September 18, 2000 letter. Please note that electrical reliability is a key component to any transportation option that you may choose for your Primary Corridor Transportation Project, in terms of continuous operation of traffic signals along, and supplemental to the selected transit route.

Electrical reliability in the Downtown/University/Waikiki areas will be especially crucial to the successful operation of a Bus Rapid Transit system utilizing the "embedded plate systems" technology.

To that end, the Kamoku-Pukele 138kV transmission line project is vital to maintain electrical reliability to support transportation and other infrastructure needs in the Primary Urban Center.

Thank you for the opportunity to comment on this MIS/DEIS.

Sincerely,

Ken T. Morikami, Director
Project Management Division

cc: Office of Environmental Quality Control
Robert Bramen, Project Manager, Parsons Brinckerhoff Quade and Douglas, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05353R

November 13, 2002

Mr. Ken T. Morikami, Director
Project Management Division
Hawaiian Electric Company, Inc.
P. O. Box 2750
Honolulu, Hawaii 96840-001

Dear Mr. Morikami:

Subject: Primary Corridor Transportation Project

This is in response to your November 1, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Please note that electrical reliability is a key component to any transportation option that you may choose for your Primary Corridor Transportation Project, in terms of continuous operation of traffic signals along, and supplemental to the selected transit route.*

   Response: Comment noted.

2. *Electrical reliability in the Downtown/University/Waikiki areas will be especially crucial to the successful operation of a Bus Rapid Transit system utilizing the "embeddad plate systems" technology.*

   Response: Comment noted.

3. *To that end, the Kamoku-Pukele 138kV transmission line project is vital to maintain electrical reliability to support transportation and other infrastructure needs in the Primary Urban Center.*

   Response: The DTS appreciates HECO's position on the importance of the Kamoku-Pukele 138kV transmission line project. However, we fail to see how this project and the Primary Corridor Transportation Project are related.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

ENV 2-1

Scott W.H. Seu, P.E.
Manager
Environmental Department

September 18, 2000

City and County of Honolulu
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Attention: Ms. Cheryl D. Soon

Subject: **Primary Corridor Transportation Project**

Thank you for the opportunity to comment on your August 2000 DEIS for the Primary Corridor Transportation Project. We have reviewed the subject document and have no comments at this time. However, HECO would like to be informed if the electric bus version of the BRT alternative is selected. At that time HECO will need additional information on the load requirements and points of service delivery.

HECO shall reserve further comments pertaining to the protection of existing powerlines bordering the project area until construction plans are finalized. Again, thank you for the opportunity to comment on this DEIS.

Sincerely,

cc: OEQC

Parsons Brinkerhoff Quade and Douglas, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD9/00-04571R

November 13, 2002

Mr. Scott W.H. Seu, P.E.
Manager
Environmental Department
Hawaiian Electric Company, Inc.
P. O. Box 2750
Honolulu, Hawaii 96840-001

Dear Mr. Seu:

Subject: Primary Corridor Transportation Project

This is in response to your September 18, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We have reviewed the subject document and have no comments at this time.*

   Response: Thank you for taking the time to review the MIS/DEIS.

2. *However, HECO would like to be informed if the electric bus version of the BRT alternative is selected. At that time HECO will need additional information on the load requirements and points of service delivery.*

   Response: DTS will continue to coordinate with HECO if the Embedded Plate technology is selected.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

April 8, 2002

William A. Bonnet
Vice President
Government and Community Affairs

Ms. Cheryl D. Soon, Director
Department of Transportation Services
650 S. King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

This letter is in reference to the Primary Corridor Transportation Project Supplemental Draft Environmental Impact Statement.

Energy Consumption:

The SDEIS notes in Section 5.9.2 that the in-town BRT may utilize an electric vehicle system, and an all-electric in-town BRT system would require "approximately 11,580 kilowatts per day, which can be provided within the reserve capacity of existing electric power plants according to the Hawaiian Electric Company." HECO encourages the use of energy efficient, environmentally sensitive transportation as evidenced by our involvement in many of the state's advanced technology projects.

BRT Operation:

The in-town BRT University line is proposed to operate near several of our major employment sites. The transit stops located near Iolani Palace, Alapai Street and Thomas Square, in particular, will be convenient for our many employees downtown and at Ward Avenue, should they choose public transportation for their commute.

WINNER OF THE EDISON AWARD
FOR DISTINGUISHED INDUSTRY LEADERSHIP

As one of the State's largest employers, we welcome new transportation initiatives to improve island wide mobility for our employees as well as the general public, particularly those that are energy efficient and environmentally friendly. Please keep us informed as you proceed with your planning and coordination.

Sincerely,

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01463R

November 13, 2002

Mr. William A. Bonnet, Vice President
Government and Community Affairs
Hawaiian Electric Company, Inc.
P. O. Box 2750
Honolulu, Hawaii 96840-0001

Dear Mr. Bonnet:

Subject: Primary Corridor Transportation Project

This is in response to your April 8, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *The SDEIS notes in Section 5.9.2 that the in-town BRT may utilize an electric vehicle system, and an all-electric in-town BRT system would require "approximately 11,560 kilowatts per day, which can be provided within the reserve capacity of existing electric power plants according to the Hawaiian Electric Company." HECO encourages the use of energy efficient, environmentally sensitive transportation as evidenced by our involvement in many of the state's advanced technology projects.*

   Response: We appreciate your support of the project and vehicle technology options being considered.

2. *The in-town BRT University line is proposed to operate near several of our major employment sites. The transit stops located near Iolani Palace, Alapai Streets and Thomas Square, in particular, will be convenient for our many employees downtown and at Ward Avenue, should they choose public transportation for their commute.*

   Response: Serving Honolulu's residents and employees by increasing the people-carrying capacity of the transportation system in the primary transportation corridor is a primary project purpose.

3. *As one of the State's largest employers, we welcome new transportation initiatives to improve island wide mobility for our employees as well as the general public, particularly those that are energy efficient and environmentally friendly. Please keep us informed as you proceed with your planning and coordination.*

   Response: You will be kept informed as the project progresses.

AR00015722

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under seperate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-8976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Hilton
Hawaiian Village

Peter H. Schall
Vice President & Managing Director

October 5, 2000

Duke Bainum, Chair
Transportation Committee
Honolulu City Council
530 South King St
Honolulu, HI 96813

RE: City Council Hearing - Primary Corridor Transportation Project
Hawaii Convention Center, Room 318B
Thursday, October 5, 2000

Chair Bainum, Vice Chair Marshe, and members of the Transportation Committee:

My name is Peter Schall, and I am the Managing Director of the Hilton Hawaiian Village I would like to submit this letter of comment on the City's transit plan for Honolulu.

The Hilton Hawaiian Village applauds the City's efforts to pursue the implementation of improved transportation systems. We know that Honolulu needs environmentally responsible transportation methods, operating with good frequency to create efficiencies in the city bus system, commuter traffic, and in-town vehicular traffic.

Of the three alternatives examined in the Major Investment Study/Environmental Impact Statement, we favor the Bus Rapid Transit or BRT alternative. From the materials that have been presented thus far, we understand that this alternative will have some impact by reducing the number of normal vehicular traffic lanes in certain areas. We would hope that the final study and the results of the EIS will demonstrate that public and private vehicular traffic will be sufficiently reduced by this alternative transportation system to allow for the lane reductions.

We support all efforts to improve the resident and visitor experience in Waikiki. We believe this alternate transportation system has the possibility to do that, and will provide significant improvements in the transportation system island-wide as well.

Thank you for your consideration of our comments.

Sincerely,

Peter H. Schall

2005 Kalia Road, Honolulu, HI 96815-1999
Tel: +1 808 949 4321
Reservations: www.hilton.com or 1-800-HILTONS

Hilton
Hawaiian Village

November 14, 2000

Peter H. Schall
Vice President & Managing Director

Duke Bainum, Chair
Transportation Committee
Honolulu City Council
530 South King St
Honolulu, HI 96813

RE: **Resolution 00-249**
Selection of a locally preferred alternative for the Primary Corridor Transportation Project
10:00 AM Tuesday, November 14, 2000

Chair Bainum, Vice Chair Mansho, and members of the Transportation Committee:

My name is Peter Schall, and I am the Managing Director of the Hilton Hawaiian Village. I would like to submit this letter of comment on the City's transit plan for Honolulu.

The Hilton Hawaiian Village applauds the City's efforts to pursue the implementation of improved transportation systems. We know that Honolulu needs environmentally responsible transportation methods, operating with good frequency to create efficiencies in the city bus system, commuter traffic, and in-town vehicular traffic.

Of the three alternatives examined in the Major Investment Study/Environmental Impact Statement, we favor the Bus Rapid Transit or BRT alternative. From the materials that have been presented thus far, we understand that this alternative will have some impact by reducing the number of normal vehicular traffic lanes in certain areas. We would hope that the final study and the results of the EIS will demonstrate that public and private vehicular traffic will be sufficiently reduced by this alternative transportation system to allow for the lane reductions.

We support all efforts to improve the resident and visitor experience in Waikiki. We believe this alternate transportation system has the possibility to do that, and will provide significant improvements in the transportation system island-wide as well. We look forward to the opportunity to provide more input as the Transportation Project develops.

Thank you for your consideration of our comments.

Sincerely,

Peter H. Schall

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Peter H. Schall
Vice President & Marketing Director
Hilton Hawaiian Village
2005 Kalia Road
Honolulu, Hawaii 96815-1999

Dear Mr. Schall:

Subject: Primary Corridor Transportation Project

This is in response to your October 5 and November 14, 2000 letters regarding your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). Your letters, which were identical in content, provided us with the following comment:

> *Of the three alternatives in the Major Investment Study/Environmental Impact Statement, we favor the Bus Rapid Transit or BRT Alternative. From the materials that have been presented thus far, we understand that this alternative will have some impact by reducing the number of normal vehicular traffic lanes in certain areas. We would hope that the final study and the results of the EIS will demonstrate that public and private vehicular traffic will be sufficiently reduced by this alternative transportation system to allow for the lane reductions.*

Response: Comment noted. Your comment is a statement of a preference for a Locally Preferred Alternative.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002 .

Mr. John Jacobson
Operations Analyst
Hilton Hawaiian Village
2005 Kalia Road
Honolulu, Hawaii 96815-1999

Dear Mr. Jacobson:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the October 5, 2000 Special Transportation Committee Meeting and at the November 14, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). Your testimonies, which were identical in content, provided us with the following comment:

The Hilton Hawaiian Village is in support of, in particular, the City's efforts to look for a viable alternative that is environment friendly and provides a solution that suits the community. And as such, of the three alternatives, we prefer the BRT.

Response: Comment noted. Your comment is a statement of the preference for a Locally Preferred Alternative.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Richard Yamasaki, President
IND-COM Management
681 South King Street, Suite 204
Honolulu, Hawaii 96813

Dear Mr. Yamasaki:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the October 19, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We are all very concerned about the proposed bus hub primarily for the following reasons: That many of our people have mentioned tonight already – noise pollution, sound pollution and also tremendous traffic congestions which will be added because of the proposed hub.*

   Response: This comment is referring to the proposed transit center at Kamehameha Drive-In. The Kamehameha Drive-In has been eliminated from consideration as a transit center site.

2. *I'm in favor of improving the traffic in our area. However, we feel that this would have a negative effect because where it might affect and improve some of the traffic in some of the areas, it would greatly add to the traffic congestion in the Pearlridge area.*

   Response: The transit center site at Kamehameha Drive-In and the on/off-ramp between Kaonohi Street and H-1 have been eliminated from consideration.

3. *Also mentioned that it's not only during the holiday seasons but also on the weekends whenever there is sales I guess going on in Pearlridge this traffic very, very heavy.*

   Response: The transit center site at Kamehameha Drive-In and the on/off-ramp between Kaonohi Street and H-1 have been eliminated from consideration.

4. *As the gentleman mentioned about the buses. How are we going to get the buses on a left-turn? You can't get out of Pearlridge already in many instances. This hub may pose a greater problem to this area. While relieving pressure for some other areas, our concern is for this particular area.*

   Response: The transit center site at Kamehameha Drive-In and the on/off-ramp between Kaonohi Street and H-1 have been eliminated from consideration.

5. *So, we don't know all the factors involved because we don't know how many buses are going to be coming in. Must certainly address those concerns because you may be helping someone else. You know the lives of these other people will be impacted.*

   Response: The transit center site at Kamehameha Drive-In and the on/off-ramp between Kaonohi Street and H-1 have been eliminated from consideration.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

BOBBIE JENNINGS' SPORTS NETWORK
Specialists in Development, Sponsorship, Promotion

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- Photography • Journalism
- Event Media Coordination

Oct. 3, 2000

TO: Duke Bainum
Chair, Committee on Transportation
City Council

FROM: Bobbie Jennings
Resident, Ala Moana
946-8661

RE: Testimony for the Thursday, October 5 meeting at the Hawaii Convention Center to review the transit proposal

At the two recent community meetings requests were made for more information on the first two options, the No-Build and Transportation System Management, in order that these presentations were more balanced. This was not done, leaving only one conclusion: That there are no options for the public to consider. Bus Rapid Transit is going to be implemented.

Since the presentations leave no room for change, I feel attending yet another one would not benefit either one of us.

I wish this was not so.

Bobbie Jennings

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CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Ms. Bobbie Jennings
Bobbie Jennings' Sports Network
419A Atkinson Drive
Honolulu, Hawaii 96814

Dear Ms. Jennings:

Subject: Primary Corridor Transportation Project

This is in response to your October 3, 2000 letter regarding comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

At the two recent community meetings requests were made for more information on the first two options, the No-Build and Transportation System Management, in order that these presentations were more balanced. This was not done, leaving only one conclusion: That there are no options for the public to consider. Bus Rapid Transit is going to be implemented.

Response: While it is your view that the presentation of the alternatives at the two meetings you attended may have been unbalanced, the alternatives are treated in a balanced manner in the MIS/DEIS.

It is a federal requirement that all alternatives be treated in a balanced manner and the MIS/DEIS and Final Environmental Impact Statement (FEIS) have been reviewed to ensure that this "balanced treatment" requirement is met. A complete description and comparison of the No-Build Alternative, Transportation System Management (TSM) Alternative, and Bus Rapid Transit (BRT) Alternatives are discussed in the MIS/DEIS and FEIS, Chapters 2 – Alternatives Description and 7 – Comparison of Alternatives.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under seperate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Ken Stanley
Vice President
Operational Planning and Marketing
Oahu Transit Services, Inc.
811 Middle Street
Honolulu, Hawaii 96819

Dear Mr. Stanley:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the Public Hearing on April 20, 2002 regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm vice president of Operational Planning and Marketing for Oahu Transit Services. We operate TheBus for the City and County. I worked in the transit industry for over 34 years, with extensive experience in daily transit operations in Oregon, Washington state, California and Hawaii. For six years, I chaired the Bus Transit Systems Committee for the National Academy of Sciences Transportation Research Board. In addition, I have had the opportunity to visit and learn about bus rapid transit system firsthand in several major international cities. This is what I've learned. Mass transit and BRT, in particular, can benefit those who ride the system and those who don't. One bus can take as many as 40 automobiles off the road. This makes room on the freeway for others and reduces the demand for parking in major destinations. For example, from Central and Leeward areas, the bus operates approximately 145 trips to Downtown and Waikiki every weekday between 6:30 and 7:30 a.m. These buses carry approximately 7,250 passengers. If all these people were in automobiles instead of on the buses, with the same number of people average per car as currently use the cars, this would add almost 6,000 cars to the freeway during that one hour – and Kam Highway – the freeway and Kam Highway during that one hour alone.*

   Response: This comment is consistent with the Final Environmental Impact Statement (FEIS) findings.

2. *And that's not all. When those 6,000 cars get to where they're going, they require 6,000 additional parking spaces. The people on the bus are helping the people in their cars.*

   Response: We appreciate your insight into Honolulu's transportation issues.

3. *Improving the transit system by introducing BRT will attract more people to transit and improve mobility for everyone, whether you're on the bus or on the road.*

   Response: DTS concurs with this response.

4. *BRT can help meke Honolulu a better place to live. Such diverse cities as Ottewa, Canada, and Porto Alegre, Brazil, have successfully used BRT to improve mobility for residents and focus growth in a manageable way. While at the same time, they have been able to reduce the overdependency on the automobile. This is a meesurable outcome when the system is well-planned and executed.*

   Response: This comment is consistent with the FEIS findings.

5. *OTS staff hes participeted in all of the BRT Working Groups, including the ones that have reviewed their line sections covered by the SDEIS. We have made suggestions on operationat issues that have been incorporated inlo this project. We feel that BRT is an important element in the City's long-term transportelion plan for the island of Oahu, and we will continue to work closely with the City to make it as efficient and effective es possible.*

   Response: DTS appreciates your particlpation in the working groups and your assistance with the project's operational issues.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

OUTRIGGER
ENTERPRISES, INC.

November 14, 2000

Eric J. Masutomi
Director of Planning
Outrigger Properties
Direct line: (808) 921-6657

The Honorable Duke Bainum, Chair
Transportation Committee
City Council
City and County of Honolulu
Honolulu Hale
Honolulu, Hawaii 96813

Re: Resolution 00-249 – Relating to the Support of a Fully Integrated Mass Transit System and to the Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project

Chair Bainum and Members of the Committee:

Outrigger Enterprises, Inc. supports the intent and purpose of this resolution to approve the selection of the Bus Rapid Transit Alternative as the preferred transportation option, and to proceed with the next phase of planning and engineering for a fully integrated mass transit system for Oahu.

While we are, of course, interested in the efficacy of the overall, island-wide system, our concern naturally focuses on Waikiki segment of the proposed system. As the largest hotel operating company in Waikiki, we have a vital obligation to ensure that any transportation option that is pursued, does indeed serve the best interests of our guests, employees, our business, and Waikiki in general. As such, the Outrigger organization has been an active participant in the City's Trans 2K planning process. It is in this context, that we endorse, in concept, the high-capacity BRT system proposed for Waikiki.

We are well aware that a number of questions remain to be answered, particularly the manner in which a dedicated traffic lane might impact traffic flow into and from our hotels, as well as general delivery and guest transportation services in the district. We do, however, remain confident that these specific issues and concerns can and will be appropriately addressed and resolved as we proceed with the preliminary engineering stage of the project.

Sincerely,

Eric J. Masutomi

EJM:lth

Outrigger Hotels & Resorts • Outrigger Marketing, Inc. • Outrigger Hotels (USA), Inc.
[illegible] • Telephone: 808-921-6600 • Facsimile: 808-921-6655

AR00015728

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Eric J. Masutomi
Director of Planning
Outrigger Properties
Outrigger Enterprises, Inc.
2375 Kuhio Avenue
Honolulu, Hawaii 96815-2992

Dear Mr. Masutomi:

Subject: Primary Corridor Transportation Project

This is in response to your November 14, 2000 letter and your testimony at the November 14, 2000 Special Transportation Committee Meeting regarding your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

Outrigger Enterprises, Inc. supports the intent and purpose of this resolution to approve the selection of the Bus Rapid Transit Alternative as the preferred transportation option, and to proceed with the next phase of planning and engineering for a fully integrated mass transit system for Oahu.

Response: Comment noted. Your comment is a statement of the preference for an LPA.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: REG WHITE
Representing: PARADISE CRUISE LTD
Address: 1540 SOUTH KING ST
Honolulu HI 96826

Please make any comments below:

Attached

PARADISE CRUISE, LTD.

April 10, 2002

TESTIMONY REGARDING THE BRT SYSTEM AS PROPOSED

My name is Reg white. I am vice president, operations, for Paradise Cruise, Ltd. Paradise Cruise, Ltd. carries approximately 550,000 visitors per year aboard its three boats operating in the excursion and dinner cruise trade along the south shore of Oahu. We are an attraction. That is, we provide leisure time activities to occupy the free time of the visitors who fill our hotels. Needless to say, when you purchase a ticket for a "sunset cruise", some of the thrill is lost when the sun actually sets while you are waiting patiently on a bus stuck in heavily snarled traffic rather than aboard your anticipated "cruise". Therefore, we, as a business, are very sensitive to anything that will make the transportation of our visitors to our various island attractions less pleasant, more difficult or less dependable.

More than 90% of the people on Oahu don't ever ride the bus.
This plan's "best possible scenario" predictions call for less than a 10% of population ridership.

Of this 90% who don't ride the bus, each man, woman and child, **each of them**, pays $100.00 per year to support the operating deficit of "The Bus" that they never ride. **How much will this new system cost each of them??**

How can you allow "The Bus", which serves less than 10% of the residents of Oahu, to impede the passage of the other 90% of the residents of Oahu in their daily transit needs?
Here is where you should spend our money: Building pullouts for each and every bus stop along our roads and streets so that "The Bus" doesn't block lane one, and the people trying desperately to get out from behind the stopped bus don't foul the traffic in lane two each and every time "The Bus" makes a stop along the curb.

Why can't you see that the true need for better rapid transit is to bring working people in from the outlying areas of the island, not to foul up the present lanes of our city streets in town.
This is where we need to have our money spent, bringing people in from places like Waianae, Nanakuli, Ewa, Waikele, Makakilo, Kahuku, Hauula and Kaneohe. These are the people we need to efficiently bring to town and get back home each day. Not make a raceway for the people who are already in town so they can go around in circles faster while the other 90% of us sit, stuck in hopelessly snarled traffic caused by this BRT for the privileged 10%.

Of course care needs to be taken that even these very necessary routes coming in from the outlying areas don't impede the present flow of traffic on our already crowded roads.

1540 South King Street · Honolulu, Hawaii 96826-1949 · Phone: (808) 983-7700 · Facsimile: (808) 983-7780
Reservations: (800) 983-STAR (7827) · http://www.paradisecruise.com

Access roads and additional special service lanes would have to be constructed to accommodate this additional flow of commuters, not the **proposed** rededication of existing lanes.
This is where the money should be spent and where the effort should be made, not down here in town. What we really need are bus stop pullouts and synchronized traffic signals so the traffic we already have can flow smoothly. Just the bus stop pullouts alone would be the equivalent of gaining at least 1.5 additional lanes of traffic in each direction! Why not consider coned contraflow lanes in town that follow rush hours, much as we do on Kapiolani each day at present? This moves everyone, not just "The Bus"!

Anyone who drives our roads and streets at very late hours can attest that even at these hours of no traffic at all, our traffic signals impede rather than accommodate traffic flow.
This is not rocket science! For over 50 years they have been very successfully synchronizing signals in America. For the 90% of us who don't ride "The Bus", and for the less than 10% who do as well, please spend the funds to synchronize our traffic signals on Oahu! This will make all of the traffic flow more smoothly and rapidly to it's destination, both for those in "The Bus" and the other 90% of us who will forever stay in our cars.

Anything that fouls up the passage of traffic makes the cost of living in Hawaii go up. Time is money, and each and every item that we need in our daily lives has to travel over our roads and streets to get to us. The longer the transit time takes to make a delivery, the more our goods have to cost to pay for this wasted time in transit!

Until you have accomplished all of the above measures to help traffic to flow more smoothly and rapidly on Oahu, don't even think of starting to build a BRT system in town. You owe this to the majority! You have no right to foul up more than 90% of us just to accommodate less than 10% of us!

For Paradise Cruise, Ltd.

Reg White
Vice president, operations

AR00015730

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Reg White
Vice President of Operations
Paradise Cruise, Ltd.
1540 South King Street
Honolulu, Hawaii 96826-1919

Dear Mr. White:

Subject: Primary Corridor Transportation Project

This is in response to your April 10, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *More than 90% of the people on Oahu don't ever ride the bus. This plan's "best possible scenario" predications call for less than a 10% of population ridership.*

   Of this 90% who don't ride the bus, each man, woman and child, each of them pays $100.00 per year to support the operating deficit of "TheBus" that they never ride. How much will this new system cost each of them??

   Response: Transit systems throughout the nation are subsidized. The reasons for doing so include the recognition that many members of the community are either too young, too old, too poor, or are physically unable to drive a car, and are therefore dependent on public transportation for their mobility. Additionally, it is viewed as more cost effective to spend public funds subsidizing transit than on building new or widened roads to accommodate these same people in automobiles.

   The annual per capita subsidy will vary slightly from year to year as the Refined LPA is implemented, but in current dollars (i.e. without the effects of inflation) the subsidy will be about the same as today. This is because the system will grow in direct proportion to the growth in population.

2. *How can you allow "TheBus", which serves less than 10% of the residents of Oahu, to impede the passage of the other 90% of the residents of Oahu with their daily transit needs?*

   Here is where you should spend our money: Building pullouts for each and every bus stop along our roads and streets so that "theBus" doesn't block lane one, and the people trying desperately to get out from behind the stopped bus don't foul the traffic in lane two each and every time "TheBus" makes a stop along the curb.

   Response: Many approaches have been taken to offset the overlay of a BRT system in the urban core. These include adding lanes (such as along Ala Moana Boulevard and Kalia Road in Waikiki); removing on-street parking so as to add lanes (such as on University Avenue and on Pensacola Street); and installing bus turnouts (such as proposed along sections of Dillingham Boulevard and Kuhio Avenue).

3. *Why can't you see that the true need for better rapid transit is to bring working people in from the outlying areas of the island, not to foul up the present lanes of our city streets in town. This is where we need to have our money spent, bringing people in from places like Waianae, Nanakuli, Ewa, Waikele, Makakilo, Kahuku, Hauula and Kaneohe. These are the people we need to efficiently bring to town and get back home each day. Not make a raceway for the people who are already in town so they can go around in circles faster while the other 90% of us sit, stuck in hopelessly snarled traffic caused by this BRT for the privileged 10%.*

   Response: As part of the Regional BRT, zipper lane and ramp improvements are proposed along the H-1 and H-2 corridors to speed up travel for bus riders in these corridors. The continuation of their trips however require priority treatments be made to selected streets in-town as well so that the gains achieved getting to Middle Street are also achieved in the in-town portion of their journey.

4. *Of course care needs to be taken that even these very necessary routes coming in from the outlying areas don't impede the present flow of traffic on our already crowded roads.*

   Response: The FEIS Chapter 4 presents the traffic and transportation effects associated with implementing the Refined LPA.

5. *Access roads and additional special service lanes would have to be constructed to accommodate this additional flow of commuters, not the proposed rededication of existing lanes.*

   Response: There are limited places in the highly built-up primary corridor where new roadway construction is possible. Taken together they could not be considered a substitute for the improvements that make up the Refined LPA.

6. *This is where the money should be spent and where the effort should be made, not down here in town. What we really need are bus stop pullouts and synchronized traffic signals so the traffic we already have can flow smoothly. Just the bus stop pullouts alone would be the equivalent of gaining at least 1.5 additional lanes of traffic in each direction!*

   Response: There are a very limited number of places where there is sufficient room to add bus turnouts in the urban core. Even if it were possible, bus turnouts do nothing to speed up bus operations. In congested areas buses get trapped in the turnouts and have to wait for a gap in traffic to pull out. This would not be conducive to making transit more attractive.

7. *Why not consider zoned contraflow lanes in town that follow rush hours, much as we do on Kapiolani each day at present? This moves everyone, not just "TheBus"!*

   Response: SDOT is considering an A.M. peak contra-flow lane along Nimitz Highway from the Keehi Interchange to Pacific Street.

8. *Anyone who drives our roads and streets at very late hours can attest that even at these hours of no traffic at all, our traffic signals impede rather than accommodate traffic flow. This is not rocket science! For over 50 years they have been very successfully synchronizing signals in America. For the 90% of us who don't ride "TheBus", and for the less than 10% who do as well, please spend the funds to synchronize our traffic signals on Oahu! This will make all of the traffic flow more smoothly and rapidly to its destination, both for those in "TheBus" and the other 90% of us who will forever stay in our cars.*

   Response: The City has a state of the art traffic management center. It also has an ongoing traffic signal optimization program. Given the large number of traffic signals in Honolulu, it will take time to optimize all of the signals, but the process has been initiated and the public will see the benefits of the program in the near future.

9. *Anything that fouls up the passage of traffic makes the cost of living in Hawaii go up. Time is money, and each and every item that we need in our daily lives has to travel over our roads and streets to get to us. The longer the transit time takes to make a delivery, the more our goods have to cost to pay for this wasted time in transit!*

   Response: As pointed out in Chapter 4 of the FEIS, it is not the conversion of lanes that will create congestion. The congestion for motorists (including truck drivers) will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

10. *Until you have accomplished all of the above measures to help traffic to flow more smoothly and rapidly on Oahu, don't even think of starting to build a BRT system in town. You owe this to the majority! You have no right to foul up more than 90% of us just to accommodate less than 10% of us!*

    Response: Comment noted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PASSPORT RAILROAD

06 November 2000

CITY & COUNTY OF HONOLULU
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu HI 96813

Dear Ladies and Gentlemen:

This introductory letter and subsequent detailed comments are submitted in response to the pending Major Investment Study/Draft Environmental Impact Statement ("MIS/DEIS") -- Primary Corridor Project sponsored by the City & County of Honolulu (Department of Transportation Services - "DTS") and the US Department of Transportation - Federal Transit Administration ("FTA").

Because of the uniqueness of the Honolulu Primary Urban Corridor in general, and the national strategic significance of Hawai'i (specifically O'ahu, its most populous island) in particular, these comments derive from certain perceived risks which may not have been mitigated as they relate to the NATIONAL SECURITY INTEREST OF THE UNITED STATES OF AMERICA.

The events of recent world history reveal the need to rapidly mobilize and deploy personnel and material to diverse locations worldwide. As the "hub" of the Pacific Rim, Honolulu is home to several significant Army, Air Force, Marine and Navy installations. However, several posts would require secure, dedicated transportation to air and/or water ports for debarkation in the event of a global incident. Herein lies the conceptual, design and operating risks of the Bus Rapid Transit ("BRT") -- as the prime "inter"-dependent transit, its separability and utility for military logistics support is highly questionable.

Additionally, since the rights-of-way comprise or co-habit within high-volume civilian traffic infrastructure (principal highways, streets and roads), these thoroughfares would necessarily be targeted for disruption and consequently, likely result in substantial collateral damage, and further compromising military mobility.

The BRT systems, as proposed, represents the devolution of more than 30 years of comprehensive rapid mass transit planning. If implemented as currently conceived, the BRT would have multiple short-comings which manifest as risks unacceptable in a logistical, intellectual or functional perspective. Devoid of sound transit logistics, the BRT is a prescription for island-wide gridlock.

The BRT appears to be a conglomeration of compromises -- a "lowest common denominator" solution with short-term goals sacrificed over long-term public welfare. The BRT plan hinges on certain structural financial premises which greatly decrease the likelihood that the BRT will continue to exist and functional, operationally and financially, in the near and distant future. Among these are:

- the preeminence of short-term operating vision, resulting in short-term cost overruns which may necessitate capitalizing costs in the future to offset and financial imbalances (growth of labor costs/fringe benefits vs. revenue growth);

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• The selection of motive power (hybrid diesel/electric vs. diesel fuel); the commodity (i.e., diesel fuel oil) price risk remains essentially unchanged;

• risk management costs (i., e., insurance -- increased ridership, stops and likely accidents).

The issue of SAFETY looms large in the overall acceptability and viability of any mass transportation medium. Highly troubling is the inherent risks in the design of median stops in a tightly packed, dense urban corridor. Notwithstanding the "separate" busway ramps, the riding public will be exposed to parallel traffic, plain and simple.

The TRANSPORTATION IMPACTS ANALYSIS deals with several issues, but neglects to address the DEMOGRAPHIC PROFILE of the proposed transit rider that will leave their vehicle and opt for the improved BRT transit service. With a new census completed, and the proposed service well-developed, this becomes a CRITICAL factor in the overall success of the system. How many vehicles (registered cars and trucks) are on the island? Since 1992, how has this number changes (growth rates for 1992-2000)? How many vehicles are projected for 2025?

The ALTERNATIVES ANALYSIS (Chapters 2 and 7) is superficial, cursory and perfunctory. Since tens of millions of federal dollars were invested in the preceding 1992 FEIS ("Honolulu Rapid Transit Program"), the results of those transit alternatives investigated (i.e., monorail, LRT) should be presented as a benchmark to the currently proposed alternative. By openly and directly comparing the financial ramifications and impacts of the options which have been eliminated, the rationale for selecting BRT can be justified as more than a politically correct alternative.

Concerning the FINANCIAL ANALYSIS, the level of detail and specificity leaves more questions than answers.

• How many employees will be involved in operating the system at its capacity (2025)? What will be the average wage (hourly rate) paid to these employees in the years from 2001 to 2025? Will wages/benefits increase? Will there be a collective bargaining agreement (for cost containment)? What source of financing will be allocated to cost overruns -- and what will be the cost of such funds?

• Will all the fleet buses be deployed at one time? How will the new vehicles be financed? Will any unique or alternative financing mechanisms (i.e., cross-border leases) be employed, or will the buses be financing with long-term money from issuing municipal bonds?

We sincerely appreciate the opportunity to comment on the DEIS and look forward to the next phase of discussion and review as comments are incorporated into the final solutions for the traffic dilemma of the City and County of Honolulu.

Personal Best,

Stanley E. Taylor II
President

c: Governor, State of Hawaii (Office of Environmental Quality Control)
Parsons, Brinckerhoff Quade Douglas (Attn: Robert Brannen)

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Stanley E. Taylor II, President
Passport Railroad
P. O. Box 2901
Aiea, Hawaii 96701-8281

Dear Mr. Taylor:

Subject: Primary Corridor Transportation Project

This is in response to your November 6, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *The events of recent world history reveal the need to rapidly mobilize and deploy personnel and material to diverse locations worldwide. At the "hub" of the Pacific Rim, Honolulu is home to several significant Army, Air Force, Marine and Navy installations. However, several posts would require secure, dedicated transportation to air and/or water ports for debarkation in the event of a global incident. Herein lies the conceptual, design and operating risks of the Bus Rapid Transit ("BRT") – as the prime "inter"-dependent transit, its separability and utility for military logistics support is highly questionable.*

   Response: The military logistic support and need for rapid deployment are beyond the scope of the environmental impact statement because the project has no military purpose.

2. *Additionally, since the rights-of-way comprise or co-habit within high-volume civilian traffic infrastructure (principal highways, streets and roads), these thoroughfares would necessarily be targeted for disruption and consequently, likely result in substantial collateral damage, and further compromising military mobility.*

   Response: The potential impact in the event of a military attack on Honolulu is beyond the scope of the EIS because the project has no military purpose.

3. *The BRT systems, as proposed, represents the devolution of more than 30 years of comprehensive rapid mass transit planning. If implemented as currently conceived, the BRT would have multiple short-comings which manifest as risks unacceptable in a logistical, intellectual or functional perspective. Devoid of sound transit logistics, the BRT is a prescription for island-wide gridlock.*

   Response: Comment noted.

4. *The BRT appears to be a conglomeration of compromises -- a "lowest common denominator" solution with short-term goals sacrificed over long-term public welfare. The BRT plan hinges on*

certain structural financial premises which greatly decrease the likelihood that the BRT will continue to exist and functional, operationally and financially, in the near and distant future. Among these are a) the preeminence of short-term operating vision, resulting in short-term cost overruns which may necessitate capitalizing costs in the future to offset and financial imbalances (growth for labor costs/fringe benefits vs. revenue growth); b) The selection of motive power (hybrid diesel/electric vs. diesel fuel); the commodity (i.e., diesel fuel oil) risk remains essentially unchanged; c) risk management costs (i.e., insurance – increased ridership, stops and likely accidents).

Response: There are no bases to support your hypothesized "risks". Prudent estimates have been used in preparing the ridership and financial analyses. The ridership and financial analyses are found in Chapters 4 and 6 of the FEIS, respectively.

5. *The issue of SAFETY looms large in the overall acceptability and viability of any mass transportation medium. Highly troubling is the inherent risks in the design of median stops in a tightly packed, dense urban corridor. Notwithstanding the "seperate" busway ramps, the riding public will be exposed to parallel traffic, plain and simple.*

   Response: The conceptual design of transit stops located in the median includes features such as protective railings to separate waiting passengers from the adjacent traffic lane and discourage transit patrons from exiting the platform except at designated locations. Traffic signals and cross walks will be provided at BRT stations to allow pedestrians to safely travel to and from the platforms.

6. *The TRANSPORTATION IMPACTS ANALYSIS deals with several issues, but neglects to address the DEMOGRAPHIC PROFILE of the proposed transit rider that will leave their vehicle and opt for the improved BRT transit service. With a new census completed, and the proposed service well-developed, this becomes a CRITICAL factor in the overall success of the system. How many vehicles (registered cars and trucks) are on the island? Since 1992, how has this number changes (growth rates for 1992 - 2000)? How many vehicles are projected for 2025?*

   Response: According to The State of Hawaii Data Book 2000, motor vehicles registered on Oahu between 1992 and 2000 were:

1991	611,512 vehicles
1992	604,602 vehicles
1993	600,087 vehicles
1994	601,239 vehicles
1995	598,772 vehicles
1996	595,121 vehicles
1997	594,096 vehicles
1998	597,610 vehicles
1999	614,985 vehicles

   Oahu vehicle registrations increased less than one percent between 1992 and 2000.

7. *The ALTERNATIVES ANALYSIS (Chapters 2 and 7) is superficial, cursory and perfunctory. Since tens of millions of federal dollars were invested in the preceding 1992 FEIS ("Honolulu Rapid Transit Program"), the results of those transit alternatives investigated (i.e., monorail, LRT) should be presented as a benchmark to the currently proposed alternative. By openly and directly comparing the financial ramifications and impacts of the options which have been eliminated, the rationale for selecting BRT can be justified as more than a politically correct alternative.*

Response: The public and decision-makers had already seen the costs and benefits of various rail alternatives in the Honolulu Rapid Transit FEIS and at the outset of the current MIS/DEIS process indicated that elevated transit systems and systems that required increases in taxes were unacceptable. This left surface transit, either bus or rail as the only feasible options to be analyzed. As the process proceeded it became evident that the BRT Alternative offered virtually all of the benefits of light rail transit at substantial cost savings and with much more flexibility. Light rail transit was therefore dropped from further consideration so that the remainder of the analysis could concentrate on viable alternatives. It would have been wasteful of taxpayers' money to have continued to analyze an alternative once it was known that the general public and elected officials in the end would reject it.

8. *How many employees will be involved in operating the system at its capacity (2025)? What will be the average wage (hourly rate) paid to these employees in the years from 2001 to 2025? Will wages/benefits increase? Will there be a collective bargaining agreement (for cost containment)? What source of financing will be allocated to cost overruns – and what will be the cost of such funds?*

   Response: The FEIS assumes that the Refined LPA will be operated in a similar fashion to current bus operations, with collective bargaining agreements that will define wage and benefits to be paid. An estimate of transit employees for the Refined LPA has not been made. However the number can be expected to increase in proportion to the increase in service provided. In 2025 the Refined LPA is expected to provide about 50 to 70 percent more service than in 1998 (depending on whether revenue vehicle miles or revenue vehicle hours are used to measure the increase). Thus the number of employees can be expected to be 50 to 70 percent more than in 1998. According to the 1998 National Transit Database 1,405 full time employees were engaged in operations of TheBus, including employees in vehicle operations, maintenance and administration. No effort was made to separately calculate wage and benefit increases over the 24 year projection period. Total O&M costs were escalated at 2.5 percent, compounded annually.

   The comment on cost overruns presumably refers to capital cost of the Refined LPA. The capital cost estimate for the Refined LPA includes both design and construction contingencies. The construction contingency is intended to cover change orders that might occur during construction due to unanticipated conditions. The construction contingency at this preliminary phase of the project amounts to 15 percent of the estimated construction cost. The construction contingency is funded from the same sources as all other components of the capital cost of the project.

9. *Will all the fleet buses be deployed at one time? How will the new vehicles be financed? Will any unique or alternative financing mechanisms (i.e., cross-border leases) be employed, or will the buses be financing with long-term money from issuing municipal bonds?*

   Response: The MIS/DEIS and FEIS assume that all of the fleet buses for BRT and the entire public transportation system would be scheduled for use except those that are under repair or which are in preventive maintenance. Any new vehicles and replacement vehicles are financed from a variety of sources, including FTA Urbanized Area Formula Funds, FTA Fixed Guideway Modernization Funds, and City General Obligation Bonds. New Starts Funds would be used for a portion of the BRT vehicles.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Feith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PMC PACIFIC MANAGEMENT CORPORATION
2911 Kalākaua Avenue, Suite A500, Honolulu, Hawaii 96815
Telephone (808) 922-0388, Facsimile (808) 922-0961

November 8, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
711 Kapiolani Blvd., Suite 1200
Honolulu, HI 96813

Subject: Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS)
Primary Corridor Transportation Project (the "Project")

Dear Cheryl:

We appreciate the efforts of your department in attempting to provide a better public transportation system within Waikīkī. While every project has its positive aspects, we have some concerns which we believe need to be addressed and resolved prior to the project going forward. These concerns include:

1. The BRT plan calls for a semi-exclusive mode on Kalākaua Avenue, but with a planned interval of every 4 minutes during peak hours and 8 minutes during non-peak hours, traffic flow to the center and ocean-side hotel properties could be affected in the area of Saratoga to Kapahulu. Perhaps moving the lane to the mauka side of Kalākaua Avenue where the transit vehicle can unload on the left side of the street might be a solution.

2. There would be numerous negative impacts to our visitors, residents and merchants in Waikīkī by pushing loading areas for commercial passenger and bags loading to side streets. This would add to already overburdened side streets and create negative impressions for those visitors, residents and merchants who have to cart their luggage or goods, etc. to a side street to pick up transportation on arrival or departure and in the case of residents or merchants drop-off or pickup. Visitors from two fairly large hotels come into mind - the Outrigger Waikīkī and the Moana Surfrider.

3. Shuttle stops on Lewers Street and Royal Hawaiian Avenues have doubled the traffic flow into the Center and have notably increased the traffic on Kalākaua Avenue. It would not be feasible to run these shuttles in the same lane as the BRT with the timing structure of 4 minutes and 8 minutes.

AR00015735

Adding another lane for other private transportation brings the vehicular traffic flow on Kalākaua Avenue down to two lanes from Saratoga to Kaiulani. From Kaiulani Avenue to Kapahulu Avenue, taking another lane away from vehicular traffic brings Kalākaua Avenue down to one lane which will truly be a negative impact on traffic on Kalākaua Avenue.

4. The placement of any BRT substation in front of RHSC would have a material negative impact upon our Tenants for obvious reasons and would be detrimental to us.

It is the consensus of our Tenants that these issues need to be addressed. We are confident that your department will be sensitive to the above concerns and will work with us to develop a Project which would be beneficial to all concerned.

Sincerely,

Charlian Wright

Charlian Wright
Corporate Marketing Director

CW/sw

cc: Richard Wong
Philip Chang
Lee Miller
Michael Lyum

shared:mis/deis2000

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00529

November 13, 2002

Ms. Charlian Wright
Corporate Marketing Director
Pauahi Management Corporation
2201 Kalakaua Avenue, Suite A500
Honolulu, Hawaii 96815

Dear Ms. Wright:

Subject: Primary Corridor Transportation Project

This responds to your November 8, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *The BRT plan calls for a semi-exclusive mode on Kalakaua Avenue, but with a planned interval of every 4 minutes during peak hours and 8 minutes during non-peak hours, traffic flow to the center and ocean-side hotel properties could be effected in the area of Saratoga to Kapahulu. Perhaps moving the lane to the mauka side of Kalakau Avenue where the transit vehicle can unload on the left side of the street might be a solution.*

   Response: In the public outreach for the PCTP, DTS established a Working Group (WG) for the Waikiki area, which included representatives from the hotels, retail and service industries, commercial passenger and freight carriers, and residents. A detailed study of passenger and freight loading activities was performed and reviewed with the Waikiki WG. Discussions with this Working Group led to revisions in the proposed project that resulted in no appreciable loss of on-street loading space along the streets affected by the BRT. This will be achieved by allowing freight carriers to use the makai BRT shared lane during legal delivery hours (10 p.m. to 9 a.m. on Kalakaua Avenue and 10 p.m. to 7:30 a.m. on Kuhio Avenue). During these hours the BRT will simply pass around a stopped loading truck by using the adjacent traffic lane. Right turning vehicles into Royal Hawaiian Shopping Center and oceanside hotels will be able to use the curbside lane throughout the day.

2. *There would be numerous negative impacts to our visitors, residents and merchants in Waikiki by pushing loading areas for commercial passenger and bags loading to side streets. This would add to already overburdened side streets and create negative impressions for those visitors, residents and merchants who have to cart their luggage or goods, etc. to a side street to pick up transportation on arrival or departure and in the case of residents or merchants drop-off or pickup. Visitors from two fairly large hotels come into mind – the Outrigger Waikiki and the Moana Surfrider.*

   Response: The Refined LPA will not require that freight or passenger loading areas be relocated to side streets. Freight delivery vehicles will be able to freely use the makai curb lane during legal

loading hours and passenger loading by tour buses and trolleys will be permitted at all times. The BRT will simply pass around vehicles stopped in the curb lane.

3. *Shuttle stops on Lewers Street and Royal Hawaiian Avenues have doubled the traffic flow into the Center and have notably increased the traffic on Kalakeua Avenue. It would not be feasible to run these shuttles in the same lane as the BRT with the timing structure of 4 minutes and 8 minutes.*

   Response: There are no BRT lanes proposed for either Lewers Street or Royal Hawaiian Avenue. On Kalakeua Avenue, the makai curb lane will be shared with tour buses, trolleys and right-turning vehicles; there is no requirement that "shuttles" use the curb lane.

4. *The placement of any BRT substation in front of RHSC would have a material negative impact upon our tenants for obvious reasons and would be detrimental to us.*

   Response: There are no plans for a traction power substation in front of the Royal Hawaiian Shopping Center.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

POLYNESIAN ADVENTURE TOURS

14 November 2000

Mr. Duke Bainum, Chair
Transportation Committee
City Council
City and County of Honolulu

RE: Resolution 00-249- Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project

Chair Bainum

I am writing in support of Resolution 00-249 which designates a regional bus rapid transit system to include a spur into Waikiki. I have met with City transportation officials and I have been assured that the Waikiki spur will not further impede traffic flow in Waikiki nor will my company be restricted with respect to servicing our customers. There is concern among others in our industry that the presently selected route down Kalakaua Avenue, however, will do just that: i.e., impede traffic and restrict passenger pick-up's and movements. For that reason, I suggest that the Dept. Of Transportation Services explore alternate routes into and out of Waikiki before a final decision is made with respect to routes.

Thank you for the opportunity to present testimony.

Michael A. Carr
President

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Michael A. Carr, President
Polynesian Adventure Tours
1049 Kikowaena Place
Honolulu, Hawaii 96819

Dear Mr. Carr:

Subject: Primary Corridor Transportation Project

This is in response to your November 14, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I am writing in support of Resolution 00-249 which designates a regional bus rapid transit system to include a spur into Waikiki. I have met with City transportation officials and I have been assured that the Waikiki spur will not further impede traffic flow in Waikiki nor will my company be restricted with respect to servicing our customers.*

   Response: Comment noted.

2. *There is concern among others in our industry that the presently selected route down Kalakaua Avenue, however, will do just that: i.e., impede traffic and restrict passenger pick-ups and movements. For that reason, I suggest that the Department of Transportation Services explore alternate routes into and out of Waikiki before a final decision is made with respect to routes.*

   Response: Prior to selection of Kalakaua and Kuhio Avenues as the Locally Preferred Alternative route in Waikiki, the DTS analyzed a variety of alternate routes including: (1) two-direction service on Kuhio Avenue; (2) a Kuhio Avenue-Ala Wai Boulevard BRT couplet; (3) a Kalakaua Avenue-Ala Wai Boulevard BRT couplet; and (4) turning back BRT service at or near Saratoga Road and Kalakaua Avenue. None of these alternatives would provide anywhere as good a service to residents and employees in central Waikiki as the Refined LPA route.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: MARC RUBENSTEIN
Representing: SUPERSTAR
Address: 5 SAND ISLAND RD, #121
HONOLULU, HI 96819

Please make any comments below:

SIMPLY PUT: NEARLY
> THIS WILL COST A 4 BILLION DOLLARS, 2/3's OF WHICH IS TAXPAYER MONEY.
> IT WILL NOT ONLY NOT SOLVE THE PROBLEM OF TRAFFIC, BUT THE ELIMINATION OF LANES WILL MAKE THE SITUATION WORSE.
> NO ONE WILL RIDE THIS SYSTEM. ABOUT 90% OF PEOPLE DON'T USE THE BUS.
> WHAT ABOUT THE VAST MAJORITY OF WORKERS, BUSINESSPEOPLE, TRADESPEOPLE (PLUMBER, ELECTRICIANS), FREIGHT COMPANIES, & OTHERS WHO CANNOT RIDE THE BUS & NEED THEIR OWN CARS & TRUCKS?? THE WASTED MAN-HOURS IN TRAFFIC WILL BE INTOLERABLE!

THE BRT IS NOT THE ANSWER.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Marc E. Rubenstein
Super Star
5 Sand Island Access Road, Unit 121
Honolulu, Hawaii 96819

Dear Mr. Rubenstein:

Subject: Primary Corridor Transportation Project

This is in response to your April 20, 2002 testimony regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *This will cost nearly a billion dollars, 2/3's of which is taxpayer money.*

   Response: This is a public project. All capital funding is taxpayer derived.

2. *It will not only not solve the problem of traffic, but the elimination of lanes will make the situation worse.*

   Response: When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

3. *No one will ride this system. About 90% of people don't use the bus.*

   Response: To be successful in meeting the project's goals requires that less than two percent of current auto drivers in the primary corridor use transit instead. The FEIS Chapter 4 includes the BRT ridership projections.

4. *What about the vast majority of workers, business people, tradespeople (plumber, electricians), freight companies and others who cannot ride the bus and need their own cars and trucks? The wasted man-hours in traffic will be intolerable!*

   Response: We recognize that only about ten percent of the all the trips made in the primary corridor will be made on transit. That is why the BRT has been designed to not make traffic conditions worse, an in most places better for other users of the highway system, while significantly increasing the highway system's people carrying ability. The FEIS Chapter 4 presents the vehicle hours of savings with the Refined LPA.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

T. EKI, INC./EKI CYCLERY

Serving Hawaii's families since 1911

1603 Dillingham Boulevard, Honolulu, Hawaii 96817-4894
Phone: (808) 847-2005 Fax: (808) 847-2006 E-mail: eki@aloha.com

October 27, 2000

DILLINGHAM BOULEVARD CITY DOT IMPROVEMENTS

THOUGHTS/CONCERNS PER JAYNE & JAY KIM

Our **top priority is bike lanes for commuters on both sides of Dillingham.** *Per Clyde, yes, there will be a 3 ft wide shoulder line drawn on either side of Dill.*

Also, **must have bike signs** at the beginning, end & middle of Dill. (and all thoroughfares for that matter). This serves the purpose of both making cyclists feel welcome on the road as well as alerting drivers to 1) share the road and 2) be aware of cyclists.

> *As a note: Is your business, place of work bicycle and pedestrian friendly? Do you have a bike parking rack or at least fencing or poles that customers and employees can lock up their bikes? And is the parking rack in a visible, convenient location? Most cyclists do not like to leave their bikes in obscure, hidden places even if it is locked up. For pedestrians, do you have a sidewalk connecting up to your entrances or at least crosswalk lining thru your parking lot?*

Other thoughts:

No concrete barriers separating two way traffic.

No trees or palms separating two way traffic. Businesses/destinations need to be easily visible from both sides of the boulevard.

Bus platform to have an "island" feel/look?

Concerns:

Length of project construction and time of year it will occur. Please avoid Christmas.
Will there be any coning off of areas for any period of time?

EKIBIKE.....geared to the freedom & fitness of biking.....EKIBIKE

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Ms. Jayne Kim and
Mr. Jay Kim
T. EKI, Inc./EKI Cyclery
1603 Dillingham Boulevard
Honolulu, Hawaii 96817-4894

Dear Mr. Kim and Ms. Kim:

Subject: Primary Corridor Transportation Project

This is in response to your October 27, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *No concrete barriers separating two-way traffic.*

   Response: Concrete barriers are needed for safety reasons for the zipper lanes on H-1. In-Town there will be no concrete barriers separating the BRT lanes from other traffic.

2. *No trees or palms separating two way traffic. Businesses/destinations need to be easily visible from both sides of the boulevard*

   Response: The Refined LPA does not include trees or palms separating two-way traffic more than exists today.

3. *Bus platform to have an "island" feel/look?*

   Response: The appearance of transit stops will be related to their surrounding community. They will be designed to be highly contextual and pedestrian friendly.

4. *Length of project construction and time of year it will occur. Please avoid Christmas.*

   Response: To minimize the impact and ensure access to businesses and residences along Dillingham Boulevard, construction will occur in phases. The initial phase will be the ADA improvements on the mauka side of Dillingham Boulevard. The second phase will be road widening, power relocation, and pavement reconstruction. Access to businesses and residences during this stage is critical and will be maintained at all times. The third and final stage will be the installation of dedicated lanes in the middle of Dillingham Boulevard. Access to businesses will be maintained by allowing strategically placed left turn crossings across the construction areas. The phases will overlap with one another as soon as it is most feasible. Construction during the Christmas season is unavoidable, as the overall construction duration is expected to be greater than a year. Again, however, access to businesses and residences will be maintained throughout the entire period of construction.

5. *Will there be any coning off of areas for any period of time?*

   Response: During the final design phase, a detailed set of traffic management plans will be developed. The plans will identify specific locations where and for how long the roadways will be coned off during construction.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Testimony for October 5, 2000 Public Hearing on the Primary Corridor Transportation Project

Oct 5 3

Good Evening Chairman and members of Committee on Transportation, my name is Alex Kagawa and I am from Trans Hawaiian Services. Trans Hawaiian is a locally owned tour and transportation company that provides passenger carrier services to visitors and the general public.

We appreciate that the City has established a "locally preferred alternative" process for its Primary Corridor Transportation project. While we support all efforts by public and private organizations to improve mobility, we do not support alternatives that will disrupt the quality of service provided by locally owned businesses.

As a locally owned corporation in the State of Hawaii, we would like to take this opportunity to express our concerns on the Bus Rapid Transit alternative in the Primary Corridor Transportation project.

I would like to focus our attention on our opposition on the use of Kalakaua Avenue as part of the Waikiki BRT route.

In the past, city buses were rerouted from Kalakaua Avenue to Kuhio Avenue to reduce traffic congestion on Kalakaua. The MIS/DEIS proposes to put BRT city buses and the congestion back on Kalakaua Avenue. The proposed BRT Kalakaua route should be shifted back to Kuhio Avenue and follow existing city bus pattern for its Waikiki movements. As an alternative to the Kapahulu, Paki Street turnaround loop, Jefferson school could be converted into a turn-around terminus for BRT vehicles.

Many of our customers expect us to have pickup locations on Kalakaua Avenue, especially for our shopping shuttle tour programs. Adding the BRT stops on Kalakaua would create more congestions in these areas which decreases our quality of service.

Several months ago we have proposed the City to look at loading zone alternatives for shuttle tour programs, such as trolleys and shopping shuttles. Our proposal included utilizing areas that are separate from popular tour bus loading zones. Some of these new shuttle stop locations are along Kalakaua Avenue between Lewers and the end of Royal Hawaiian Shopping Center. These areas are currently being used by freight companies to stage vehicles while waiting for an open loading zone or to offload goods at nearby stores and shops. With some improvement, these loading areas can be better utilized by establishing loading zones for shuttle programs.

This concludes my testimony and I would like to thank the committee for its consideration in your decision to select a locally preferred alternative for rapid transit in Hawaii. Locally owned tour and transportation companies prefer not to have Kalakaua as part of the primary corridor transportation project.

AR00015741

Testimony for October 12, 2000 Public Hearing

Good Morning Director Soon and members of the Department of Transportation Services. My name is Alex Kagawa from Trans Hawaiian Services. Trans Hawaiian is a locally owned tour and transportation company that provides passenger carrier services to visitors and the general public.

We appreciate that the City has established a "locally preferred alternative" concept for its Primary Corridor Transportation project.

As a locally owned corporation in the State of Hawaii, we would like to take this opportunity to express our concerns on the Bus Rapid Transit alternative in the Primary Corridor Transportation project.

In the past, city buses were removed from Kalakaua Avenue to alleviate traffic congestion, MIS/DEIS proposes to put city buses and the congestion back on Kalakaua Avenue. The proposed BRT Kalakaua route should be shifted to Kuhio Avenue and follow the existing city bus pattern for its Waikiki movements or another alternative would be to utilize Ala Wai Boulevard.

Tour companies must be allowed to pickup along Kalakaua and Kuhio avenues. If the frequency of BRT vehicles are every 4 minutes, then this would create massive congestion along Kalakaua and Kuhio Avenues of BRT vehicles, tour vehicles and rental cars.

I have a few other concerns that I would like to mention at this time, first, if hotel workers normally start before peak morning traffic and end before peak evening traffic, is it possible that we could save some of our tax dollars by eliminating the BRT option for Waikiki and keeping the existing bus system ? Secondly, now that Governor Cayetano has announced that he will be implementing later start times for state employees, how will this impact the need for BRT ?

In closing, I would like to thank the department for their efforts in improving our public transit system and for its consideration in the selection of a locally preferred alternative for rapid transit in Hawaii.

November 6, 2000

Ms. Cheryl Soon, Director
Department of Transportation Services
711 Kapiolani Boulevard
Honolulu, HI 96813

SUBJECT: Comments on the Major Impact Study / Draft Environmental Impact Statement: Primary Corridor Project

Dear Ms. Soon:

Thank you allowing us the opportunity to provide comment on the Draft Environmental Impact Study for the Primary Corridor Project. We hope that our comments and suggestions will help the City in its selection of a locally preferred alternative for the Primary Corridor Project for the City and County of Honolulu.

Trans Hawaiian supports enhancements in public transit services including, Zipper lanes, HOV lanes, LOTMA commuter express, Mililani Trolley and Kaimuki Trolley.

However, Trans Hawaiian asks the City to consider the negative impact to locally owned, private tour and transportation companies if the Primary Corridor project includes a route along Kalakaua Avenue. As state certified passenger carriers, the majority of our business is derived from visitors vacationing in Waikiki. Locally owned private transportation companies are requesting for more of the unusable tour bus loading zones to be activated so that it may service its clients and alleviate traffic congestion at the existing tour bus loading zones. Secondly, the proposed Primary Corridor Project route on Kalakaua Avenue will add to the traffic congestion increasing the difficulties of private tour company's ability to provide service to its clients in Waikiki.

Our main concern is the use of Kalakaua Avenue in Waikiki. A public transit system on Kalakaua Avenue with a 4 to 8 minute frequency will make it impossible for private tour and transportation companies to service its clients, even if the lanes and passenger loading areas are shared between public transit vehicles and private tour vehicles.

AR00015742

Private tour and transportation companies have requested the City to activate existing, but unusable, loading zone areas on Kalakaua Avenue for the private tour shuttle and trolley vehicles. This will alleviate the congestion in the existing, but limited, tour vehicle loading zones and will reduce traffic congestion along Kalakaua Avenue.

An alternative to the proposed routing in Waikiki, we would like to offer the following suggestion:

> Develop a public transit system that utilizes one lane of Kuhio in the East bound direction, mauka on Kapahulu Avenue and then, a lane on Ala Wai Blvd. for the West bound direction.
>
> The density of local residents is much greater on the Ala Wai than on Kalakaua Avenue, therefore a transit system here would help to service residents along Ala Wai Blvd. Having a transit system that utilizes one lane on Kuhio Avenue will help to reduce traffic congestion and would allow the private tour vehicles access to critical tour vehicle loading zones on Kuhio Avenue as well as Kalakaua Avenue.

Once again, thank you for allowing us the opportunity to provide comments on the Draft Environmental Impact Study for the Primary Corridor Project for the City and County of Honolulu. If you have any questions on our suggestions or comments, please feel free to call me at 808-566-7561.

Sincerely,

Alex Kagawa
Administrator

transhawaiian

November 14, 2000

Testimony for Transportation Committee Hearing on November 14, 2000

SUBJECT: Comments on the Major Impact Study / Draft Environmental Impact Statement: Primary Corridor Project

Good Morning Chairman and members of the Transportation Committee. My name is Alex Kagawa and I am from Trans Hawaiian. Trans Hawaiian is a locally owned tour and transportation company.

Thank you for allowing us the opportunity to provide comment on the Draft Environmental Impact Study for the Primary Corridor Project. We hope that our comments and suggestions will help the City in its selection of a locally preferred alternative for the Primary Corridor Project for the City and County of Honolulu.

Trans Hawaiian supports enhancements in public transit services including, Zipper lanes, HOV lanes, LOTMA commuter express, Mililani Trolley and Kaimuki Trolley.

However, Trans Hawaiian asks the City to consider the negative impact to locally owned, private tour and transportation companies if the Primary Corridor project includes a route along Kalakaua Avenue. As state certified passenger carriers, the majority of our business is derived from visitors vacationing in Waikiki. Locally owned private transportation companies are requesting for more of the unusable tour bus loading zones to be activated so that it may service its clients and alleviate traffic congestion at the existing tour bus loading zones. Secondly, the proposed Primary Corridor Project route on Kalakaua Avenue will add to the traffic congestion increasing the difficulties of private tour company's ability to provide service to its clients in Waikiki.

Our main concern is the use of Kalakaua Avenue in Waikiki. A public transit system on Kalakaua Avenue with a 4 to 8 minute frequency will make it impossible for private tour and transportation companies to service its clients, even if the lanes and passenger loading areas are shared between public transit vehicles and private tour vehicles.

AR00015743

Private tour and transportation companies have requested the City to activate existing, but unusable, loading zone areas on Kalakaua Avenue for the private tour shuttle and trolley vehicles. This will alleviate the congestion in the existing, but limited, tour vehicle loading zones and will reduce traffic congestion along Kalakaua Avenue.

An alternative to the proposed routing in Waikiki, we would like to offer the following suggestion:

> Develop a public transit system that utilizes one lane of Kuhio in the East bound direction, mauka on Kapahulu Avenue and then, a lane on Ala Wai Blvd. for the West bound direction.
>
> The density of local residents is much greater on the Ala Wai than on Kalakaua Avenue, therefore a transit system here would help to service residents along Ala Wai Blvd. Having a transit system that utilizes one lane on Kuhio Avenue will help to reduce traffic congestion and would allow the private tour vehicles access to critical tour vehicle loading zones on Kuhio Avenue as well as Kalakaua Avenue.

Once again, thank you for allowing us the opportunity to provide comments on the Draft Environmental Impact Study for the Primary Corridor Project for the City and County of Honolulu. If you have any questions on our suggestions or comments, please feel free to call me at 808-566-7561.

Sincerely,

Alex Kagawa
Administrator

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05420R

November 13, 2002

Mr. Alex Kagawa
TransHawaiian Services
720 Iwilei Road, Suite 101
Honolulu, Hawaii 96817-5316

Dear Mr. Kagawa:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). We are responding to your oral testimony at the October 5, 2000 Special Transportation Committee Meeting, your October 5, 2000 letter, your October 12, 2000 written testimony, your oral testimony at the October 12, 2000 formal Public Hearing, your November 6, 2000 letter, your November 14, 2000 letter, and your oral testimony at the November 14, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS:

1. *While we support all efforts by public and private organizations to improve mobility, we do not support alternatives that will disrupt the quality of service provided by locally owned businesses.*

   Response: Since publication of the MIS/DEIS, the City has worked with the Waikiki Working Group and other interested parties to redesign the BRT in Waikiki to minimize impacts on vehicular traffic and private bus operations, and to maximize opportunities for widening sidewalks on Kuhio Avenue. Changes include allowing four buses, trolleys and right turning vehicles to share the BRT lanes in Waikiki, and providing for a minimum of a combined eight feet of sidewalk widening on one or both sides of Kuhio Avenue. As shown in FEIS Table 4.2-7, the impacts of giving priority to the In-Town BRT and other buses on traffic conditions in Waikiki will not be significant.

2. *In the past, city buses were rerouted from Kalakaua Avenue to Kuhio Avenue to reduce traffic congestion on Kalakaua. The MIS/DEIS proposes to put BRT city buses and the congestion back on Kalakaua Avenue. The proposed BRT Kalakaua route should be shifted back to Kuhio Avenue and follow existing city bus pattern for its Waikiki movements. As an alternative to the Kapahulu, Paki Street turnaround loop, Jefferson school could be converted into a turn-around terminus for BRT vehicles.*

   Response: The proposed routing of the BRT with a one-way loop on Kalakaua and Kuhio Avenues was found to best serve the travel needs of the projected users of the system, namely Waikiki workers, Waikiki residents, and visitors to Waikiki (both Oahu residents and tourists). Along this portion of Waikiki there are 14,300 jobs along Kalakaua Avenue and 10,500 along Kuhio Avenue. There are 1,700 housing units along Kalakaua Avenue and 4,500 along Kuhio Avenue. There are 12,200 hotel rooms along Kalakaua Avenue and 4,200 along Kuhio Avenue. In other words a loop along Kalakaua and Kuhio Avenues would directly serve all of these

potential users, whereas a two-way operation on Kuhio Avenue would only directly serve a portion of the travel market. Further, a two-way loop on Kuhio Avenue would displace passenger and freight loading zones or would result in traffic delays if the loading zones weren't displaced. By contrast, the Kalakaua/ Kuhio loop maintains auto access as well as passenger and freight loading zones on both Kalakaua and Kuhio Avenues.

3. *Many of our customers expect us to have pickup locations on Kalakaua Avenue, especially for our shopping shuttle tour programs. Adding the BRT stops on Kalakaua would create more congestion in these areas which decreases our quality of service.*

   Response According to the traffic analysis presented in the FEIS Table 4.2-7, the level of congestion on Kalakaua Avenue will not be significantly different in 2025 with the addition of the BRT. Tour buses would still be able to drop-off and pick-up passengers at designated loading zones.

4. *Several months ago we have proposed the City to look at loading zone alternatives for shuttle tour programs, such as trolleys and shopping shuttles. Our proposal included utilizing areas that are seperate from populer tour bus loading zones. Some of these new shuttle stop locations are along Kalakaua Avenue between Lewers and the end of Royal Hawaii Shopping Center. These areas are currently being used by freight companies to stage vehicles while waiting for an open loading zone or to offload goods at nearby stores and shops. With some improvement, these loading areas can be better utilized by establishing loading zones for shuttle programs.*

   Response: Comment duly noted and will be taken into consideration as these details are finalized.

5. *Locally owned tour and transportation companies prefer not to have Kalakaua as part of the Primary Corridor Transportation Project.*

   Response: Comment noted.

6. *In the past, city buses were rerouted from Kalakaua Avenue to Kuhio Avenue to reduce traffic congestion on Kalakaua. The MIS/DEIS proposes to put BRT city buses and the congestion back on Kalakaua Avenue. The proposed BRT Kalakaua route should be shifted to Kuhio Avenue and follow the existing city bus pattern for its Waikiki movements or another alternative would be to utilize Ala Wai Boulevard.*

   Response: See response to comment #2 for the two-way Kuhio Avenue operation. With regard to a Kuhio Avenue/ Ala Wai Boulevard loop, it would be even further removed from the large number of jobs and hotel rooms on Kalakaua Avenue. Travel time analysis indicates that with a Kuhio Avenue/Ala Wai Boulevard routing, an extra 3.3 minutes trip time would be added to over 85 percent of the projected BRT riders starting their trip in this part of Waikiki, when compared to the Kalakaua/ Kuhio Avenue loop.

7. *Tour companies must be allowed to pickup along Kalakaua and Kuhio avenues. If the frequency of BRT vehicles are every 4 minutes, then this would create massive congestion along Kalakaua and Kuhio Avenues of BRT vehicles, tour vehicles and rental cars.*

   Response: See response to comment #3.

8. *I have a few other concerns that I would like to mention at this time, first, if hotel workers normally start before peak morning traffic and end before peak evening traffic, is it possible that we could save some of our tax dollars by eliminating the BRT option for Waikiki and keeping the existing bus system?*

   Response: The BRT is meant to complement local bus service in Waikiki and elsewhere in the Primary Transportation Corridor by providing a faster more reliable service for riders by offering limited stop operations in bus priority lanes. Hotel workers in Waikiki are among those who will benefit from the proposed BRT since the BRT system will provide benefits throughout the day not just during peak hours. There are many other workers and residents in Waikiki who commute during normal peak periods who will also benefit from the BRT serving Waikiki.

9. *Secondly, now that Governor Cayetano has announced that he will be implementing later start times for state employees, how will this impact the need for BRT?*

   Response: Even with implementation of later start times for State employees, there is still a need for the Refined BRT.

10. *On the BRT project, has the City considered what the negative economic impact to locally owned transportation companies would be? For example, on Kalakaua and Kuhio Avenues, tour companies must be allowed to pick up their clients along these avenues. The frequency of BRT vehicles are every four minutes. This would create massive congestion along Kalakaua and Kuhio Avenues.*

    Response: Through community outreach efforts including working with members of the Hawaii Transportation Association which represents private freight and passenger carriers, the sub area Working Groups, the Waikiki Improvement Association, and others, DTS has developed a plan which minimizes direct impacts on passenger and freight loading zones, and, in the event of unavoidable adverse impacts, identifies alternate loading locations for all businesses along the BRT route. There will not be any measurable impact on businesses due to the loss of any loading zones. See also response to comment #3.

11. *My other concerns are, if hotel workers are – normally start work before the peak morning traffic and end before the peak evening traffic, then would it be possible to eliminate the BRT option for Waikiki and maintain the existing bus system?*

    Response: See response to comment #8.

12. *My third concern is that, now that Governor Cayetano has announced that he would be implementing the later start times plan for State employees, how will this impact the need for BRT?*

    Response: See response to comment #9.

13. *Trans Hawaiian supports enhancements in public transit services including, Zipper lanes, HOV lanes, LOTMA commuter express, Mililani Trolley and Kalmuki Trolley.*

    Response: Comment noted.

14. *However, Trans Hawaiian asks the City to consider the negative impact to locally owned, private tour and transportation companies if the Primary Corridor project includes a route along Kalakaua Avenue.*

    Response: See responses to comments #3 and #10.

15. *As state certified passenger carriers, the majority of our business is derived from visitors vacationing in Waikiki. Locally owned private transportation companies are requesting for more of the unusable tour bus loading zones to be activated so that it may service its clients and alleviate traffic congestion at the existing tour bus loading zones.*

    Response: The BRT would not preclude continued use of any of the existing passenger or freight loading zones on either Kalakaua or Kuhio Avenues.

    See responses to comments #3 and #10.

16. *Secondly, the proposed Primary Corridor Project route on Kalakaua Avenue will add to the traffic congestion increasing the difficulties of private tour company's ability to provide service to its clients in Waikiki.*

    Response: See responses to comments #3 and #10.

17. *Our main concern is the use of Kalakaua Avenue in Waikiki. A public transit system on Kalakaua Avenue with a 4 to 8 minute frequency will make it impossible for private tour and transportation companies to service its clients, even if the lanes and passenger loading areas are shared between public transit vehicles and private tour vehicles.*

    Response: See responses to comments #3 and #10.

18. *Private tour and transportation companies have requested the City to activate existing, but unusable, loading zone areas on Kalakaua Avenue for the private tour shuttle and trolley vehicles. This will alleviate the congestion in the existing, but limited, tour vehicle loading zones and will reduce traffic congestion along Kalakaua Avenue.*

    Response: See response to comment #10.

19. *An alternative to the proposed routing in Waikiki, we would like to offer the following suggestion: a) Develop a public transit system that utilizes one lane of Kuhio in the East bound direction, mauka on Kapahulu Avenue and then, a lane on Ala Wai Blvd. for the West bound direction. b) The density of local residents is much greater on the Ala Wai than on Kalakaua Avenue, therefore a transit system here would help to service residents along Ala Wai Blvd. Having a transit system that utilizes one lane on Kuhio Avenue will help to reduce traffic congestion and would allow the private tour vehicles access to critical tour vehicle loading zones on Kuhio Avenue as well as Kalakaua Avenue.*

    Response: See response to comment #6.

    It is true that a Kuhio/Ala Wai loop would more directly serve residents in this portion of Waikiki. (There are 4,500 residential units along Ala Wai, 4,500 along Kuhio, and 1,700 along Kalakaua.) The problem is that only about 25 percent of the projected riders in this area would be residents. It is estimated that fifty percent of BRT users in Waikiki would be workers and the remaining

25 percent would be Oahu residents visiting Waikiki for business, shopping or recreation, and tourists. For these workers and visitors, the Kalakaua/Kuhio loop would more directly serve their needs.

As far as effects to private tour vehicles, loading zones for private buses are proposed to be retained on Kalakaua and Kuhio Avenues with the BRT alignment.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under seperate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

AR00015746

September 27, 2000

verizon

Verizon Hawaii Inc.
P.O. Box 2200
Honolulu, HI 96841

Attention: Ms. Cheryl D. Soon, Director
City & County of Honolulu
Department of Transportation Services
711 Kapiolani Boulevard, suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: **Primary Corridor Transportation Project**

Thank you for the opportunity to review and comment on the major investment study/draft environmental impact statement for the subject project.

Verizon Hawaii has facilities along the three proposed plans that may be impacted by the project. Further review is required by Verizon Hawaii during the design stages of the project to determine the scope of work and if there will be any associated relocation costs.

If you have any questions or require assistance in the future on this project, please call Les Loo at 840-5861.

Sincerely,

Jill Z. Lee
Section Manager
Access Design & Construction

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD9/00-04713R

November 13, 2002

Ms. Jill Z. Lee
Section Manager
Access Design & Construction
Verizon Hawaii Inc.
P. O. Box 2200
Honolulu, Hawaii 96841

Dear Ms. Lee:

Subject: Primary Corridor Transportation Project

This is in response to your September 27, 2000 letter regarding your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

> *Verizon Hawaii has facilities along the three proposed plans that may be impacted by the project. Further review is required by Verizon Hawaii during the design stages of the project to determine the scope of work and if there will be any associated relocation costs.*
>
> Response: We agree. Designers will also coordinate with Verizon Hawaii and other agencies and providers during the final design stage.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

VICTORIA WARD, LIMITED
1210 AUAHI STREET, SUITE 115 • HONOLULU, HAWAII 96814-4922 • TEL: (808)591-8411 • FAX: (808)596-4919
"Old Plantation"

October 12, 2000

Primary Corridor Transportation Project
Major Investment Study/Draft Environmental Impact Statement

Testimony of Jeffrey C. Dinsmore
Chief Financial Officer
Victoria Ward, Limited

Good evening and thank you for the opportunity to speak about your proposed improvements to our city's transportation system. The Primary Corridor Transportation project proposed by the City Department of Transportation Services will impact Victoria Ward, Limited properties. The Draft Environment Impact Statement prepared for three different transportation alternatives analyzes a "No-Build" alternative, Transportation System Management (TSM) alternative, and Bus Rapid Transit (BRT) alternative. Having reviewed the DEIS in general, we offer the following comments:

- The No-Build and TSM alternatives have very little impact to VWL properties. The TSM alternative indicates a route along Ala Moana Boulevard. A potential impact of these alternatives may be the redistribution of traffic from Ala Moana Boulevard to other streets due the increased congestion for personal vehicles resulting from preference given to transit vehicles.

- With respect to the BRT alternative:

    a. The BRT alternative will more positively affect VWL properties as the proposed corridor includes Halekauwila Street, Pohukaina Street, and Auahi Street, all of which VWL properties front. The corridor connects back to Ala Moana Boulevard at Queen Street, the diamond head entrance to our property.
    b. Lanes on Auahi Street would be reduced from the existing four lanes to two from Ward Avenue to Queen Street. This would help to slow down traffic flow and enhance our development plans in creating a 2-block "Main Street" in mid town Honolulu
    c. The DEIS indicates that construction of parking facilities may be considered in certain areas which would facilitate our future development plans.
    d. A transit station is proposed at Kamakee Street that would enhance potential customer movement to our site, specifically our new entertainment center that will be opening in early summer of 2001.

In closing, we support the BRT alternative as currently proposed and believe that it will improve traffic flow within Honolulu's urban core and improve connection between in town destinations. Thank you for the opportunity to speak on this matter.

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. Jeffrey C. Dinsmore, Chief Financial Officer
Victoria Ward Limited
1210 Auahi Street, Suite 115
Honolulu, Hawaii 96814-4922

Dear Mr. Dinsmore:

Subject: Primary Corridor Transportation Project

This is in response to your October 12, 2000 letter, your oral testimony at the October 12, 2000 formal Public Hearing, and your support at the November 14, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *The No-Build and TSM alternatives have very little impact to VWL properties. The TSM alternative indicates a route along Ala Moana Boulevard. A potential impact of these alternatives may be the redistribution of traffic from Ala Moana Boulevard to other streets due the increased congestion for personal vehicles from preference given to transit vehicles.*

   Response: The Refined LPA (BRT Alternative) does not use Ala Moana Boulevard in the vicinity of Victoria Ward properties. It uses roadways that are parallel to Ala Moana Boulevard. The Kakaako Makai branch will use Ilalo Street and the Kakaako Mauka branch uses Pohukaina Street between South Street and Ward Avenue, and Auahi Street between Ward Avenue and Queen Lane (IBM Building). The BRT will be operating in semi-exclusive curb lanes on Pohukaina and Auahi Streets and in mixed traffic on Ilalo Street..

2. *The BRT alternative will more positively affect VWL properties as the proposed corridor includes Halekauwila Street, Pohukaina Street, and Auahi Street, all of which VWL properties front. The corridor connects back to Ala Moana Boulevard at Queen Street, the diamond head entrance to our property.*

   Response: Comment noted.

3. *Lanes on Auahi Street would be reduced from the existing four lanes to two from Ward Avenue to Queen Street. This would help to slow down traffic flow and enhance our development plans in creating a 2-block "Main Street" in mid-town Honolulu.*

   Response: Comment noted.

4. *The DEIS indicates that construction of parking facilities may be considered in certain areas, which would facilitate our future development plans.*

   Response: Chapter 4 of the MIS/DEIS and the FEIS state that replacement parking in new off-street parking facilities would be considered, but only if they meet other livable community objectives and are a result of community based planning. For example, replacement parking will be considered for the neighborhood around University Avenue, where 78 on-street parking spaces will be lost.

5. *A transit station is proposed at Kamakee Street that would enhance potential customer movement to our site, specifically our new entertainment center that will be opening in early summer of 2001.*

   Response: Comment noted.

6. *In closing, we support the BRT alternative as currently proposed and believe that it will improve traffic flow within Honolulu's urban core and improve connection between in town destinations.*

   Response: Comment noted.

7. *The Primary Corridor Transportation Project proposed by the City Department of Transportation Services will impact Victoria Ward, Limited properties.*

   Response: Comment noted.

8. *The No-Build and TSM alternatives have very little impacts to our properties. The TSM alternative indicates a route along Ala Moana Boulevard. A potential impact of these alternatives may be the redistribution of traffic from Ala Moana Boulevard to other streets due to the increased congestion for personal vehicles resulting from preference given to transit vehicles.*

   Response: See response to comment #1.

9. *With respect to the BRT Alternative, the BRT alternative will more positively affect Victoria Ward, Limited properties as the proposed corridor includes Halekeuwila Street, Pohukaina Street, and Auahi Street, all of which our properties front. The corridor connects back to Ala Moana Boulevard at Queen Street, the Diamond Head entrance to our property.*

   Response: Comment noted.

10. *Lanes on Auahi Street would be reduced from the existing four lanes to two from Ward Avenue to Queen Street. This would help to slow down traffic flow and enhance our development plans in creating a 2-block "Main Street" in mid town Honolulu.*

    Response: Comment noted.

11. *The DEIS indicates that construction of parking facilities may be considered in certain areas which would facilitate our future development plans.*

    Response: See response to comment #4.

12. *A transit station is proposed at Kamakee Street that would enhance potential customer movement to our site, specifically our new entertainment center that will be opening in early summer of 2001.*

    Response: Comment noted.

13. *In closing, we support the BRT alternative as currently proposed and believe that it will improve traffic flow within Honolulu's urban core and improve connection between in town destinations.*

    Response: Comment noted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

5/5/02

YORK
& COMPANY, INC.

MAY 8 2002

COMMENTS FOR DEIS

I have 2 comments to make re: the DEIS:

1. Adequate Notice and
2. Impact on Business along the BRT route.

In my opinion a great majority of citizens, property owners, tenants businesses, employees – especially those on the proposed BRT route – are not only not aware of the BRT, but certainly not aware of the serious problems that the BRT would create. I, and several other Dillingham area businessmen, personally walked several blocks of Dillingham Blvd. and talked with over 40 businesses owners. NOT ONE OF THESE BUSINESSES OWNERS KNEW WHAT BRT WAS! We have petitions people signed that were concerned about BRT, by over 300 people available for your review.

Many of these property owners and businesses, were concerned that that BRT calls for exclusive use of the 2 center lanes along the entire length of Dillingham Blvd. Effectively, 3 lanes out of 5 lanes total, would be unavailable to local traffic. That leaves only one lane in each direction to service Dillingham, and each of those "one" lanes would be shared by cars, local buses, and a proposed bikeway*. If you are not familiar with Dillingham Blvd. and the implications that this would have, we suggest you take a drive up and down Dillingham to get a sense of the dramatic and devastating impact that would have on the businesses, property owners and local community.

This plan would render Dillingham Monday thru Friday to permanent gridlock for local traffic. As it is now, driving in either of the far right lanes, is extremely slow due to local bus stops.

935 DILLINGHAM BOULEVARD • HONOLULU, HAWAII 96817 • TELEPHONE: (808) 832-0010 • FAX: (808) 841-9675
EMAIL: jyork@yorkco.com • WEBSITE: yorkco.com

A more common sense solution would be to use contra flow and HOV lanes for Dillingham for only rush hour traffic, in the morning and afternoon, allowing automobile traffic the use of those center lanes for all times other than rush hour.

We don't feel that the public has been fairly notified and involved in the decision making process. This is such a major issue that will dramatically impact everyone in Honolulu, that we are insisting that the City, State and Fed. do not rush to a decision they might regret.

We have been told at each of the countless BRT meetings that there have been many meetings, public notices and hearings and that everything possible has been done to inform the community of the BRT. Unfortunately the reality is that vast majority of the public don't have a clue as to the reality of what is planned. And it won't be until the actual construction starts that the real community sentiment will then rear its "ugly head."

We think that if there are to be long term workable solutions that there must be compromise from both affected property owners/businesses and our representatives. And to reach those solutions all parties must first be aware of what is being discussed, which we don't think is the case. Then the dialectic and discourse can commence to hammer out viable, acceptable transportation solutions.

Aren't we trying to solve rush hour traffic? What is the agenda here? And Dillingham is just one example along the entire BRT route. What about the rest of the route and its impact?

We believe that the simple combination of, contraflow, HOV lanes, parking innovations, use of private buses and vans, bike ways, and getting uninsured drivers off the roads would lead to much better results than the BRT.

Are our elected representatives willing to go on the record as those who has approved massive traffic gridlock in the Primary Corridor? Are

they willing to rush to that decision when there has not been proper public notice and consequent informed feedback.

Have each of these elected representatives done any of the following:

1. *Studied the BRT "Primary Corridor Trans. Project" as per the draft of the Conceptual Design Drawings, technical Appendix B. ?*

2. *Driven the route with the above Design draft in mind and envisioned the impact?*

3. *Actually spoke with most of their constituents about BRT and what is planned?*

4. *Knew the Quality of the information provided as to ridership, demographics, and the actual costs in real (not present) dollars?*

5. *Know what the operational and maintenance costs of the system will be, what are the ridership projections, how good are those projections, and will low or even average ridership translate into City deficits?*

There seems to be so many unanswered questions. Private property condemnations, projected ridership and supporting data of BRT, concerns of access to businesses and the consequent economic results, local traffic gridlock, etc.?

These are our highways, not the governments. We demand that the BRT be made public to everyone - especially the 92% of our population that drives automobiles. That further it is fully scrutinized by objective experts in design, operation, cost and maintenance, other than those picked by the City.

James D. York

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01858R

November 13, 2002

Mr. James York
York & Company, Inc.
935 Dillingham Blvd
Honolulu, Hawaii 96817

Dear Mr. York:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the Public Hearing on April 20, 2002 and your May 5, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *This is the BRT system, how I see it every day. That is Dillingham Avenue last week. I wanted to state, as part of my testimony, quickly, that I support the McCully Neighborhood Board's position.*

   Response: Thank you for attending the public hearing an expressing your views regarding the project.

2. *I also want, for the record, went to submit a copy of the report to the City and County of Honolulu, the Transportation and Traffic Management Planning Task Force of July 1993. And it does have the solution that – common sense solutions, nonpolitical.*

   Response: Comment noted.

3. *Firstly, I was told that this was a meeting for the FTA and that we're addressing federal guidelines for transit projects. And in my opinion, they've not been followed in all the cases.*

   Response: The purpose of the April 20th meeting was to receive public comments regarding the BRT project that was published in the DEIS and SDEIS.

4. *Specifically, the first is adequate notice. The common citizens must be notified of the planned project.*

   Response: The project's public involvement process began in 1998 with the TRANS 2K meetings. There have been hundreds of meetings regarding the project, including the working groups formed to give the public a better understanding of the project. The working groups input resulted in project changes, which are reflected in the SDEIS. The project has been the subject of numerous newspaper articles plus radio and television spots. In addition, the eight project newsletters have each been distributed to over 10,000 people on the project mailing list.

5. *We, the Dillingham Group, wanted to confirm that the businesses of Dillingham have no idea of what the BRT is. And I have a sampling here of about 300 signatures of businesses along the area that we took in less than two days.*

   Response: One of the responsibilities of the Kalihi Working Group members, of which you were a member, was to take the information from the working group meetings and share it with your associates and to bring their comments back to the working group meetings.

6. *So I have wanted to state the second federal guidelines that I don't see being followed is the economic impact. And an – excuse me – an EIS is mandated to continue the economic impact a transit program will have. The EIS before us doesn't do that.*

   Response: Economic and business impacts of the Refined LPA (BRT Alternative) are addressed in various sections of the MIS/DEIS, SDEIS and FEIS, including Sections 5.1, 5.2, 5.3 and 5.12.11.

7. *And to demonstrate that economic impact, I wanted to personally thank the City for giving us this demo project of the BRT. And this is one lane, one direction, that's heading from Middle Street to down to Iwilei. And it will be the same in the other direction. It will be the same on Ala Moana. It will be the same on Kapiolani. The thing is nuts. The whole idea is totally nuts.*

   Response: As documented in Chapter 4 of the FEIS, there will be enough people diverted out of the cars onto public transit for Dillingham Boulevard to operate effectively with one general purpose lane in each direction, plus turn lanes at major intersections. Along half of the route, the general purpose lanes will be extra wide so that stopped and right-turning vehicles will not hold up traffic behind it. Along the other half, bus turnouts will be installed so that stopped buses do not block traffic.

   Because of the diversion of people from autos to transit, even with the BRT lanes, the traffic LOS along Dillingham Boulevard will be equal to or better than conditions with the No-Build Alternative. Additionally, traffic LOS on parallel streets such as N. King Street and Nimitz Highway will be equal to or in most cases better with the BRT lanes on Dillingham Boulevard than without them.

   Moreover, the exclusive BRT lanes on Dillingham Boulevard will enable Dillingham Boulevard to carry 3 times the number of people that it can carry today.

8. *So I just would hope that everybody could push the Council this Wednesday to take the monies, the 35 million, whatever it is, and use that portion to be spent on the Ewa section before they do the in-town section.*

   Response: The In-Town BRT is proposed to proceed ahead of the Regional BRT so that SDOT widening of H-1 can be coordinated with the BRT improvements.

9. *And if we do build the in-town section first, we still have the sewers to deal with, the infrastructure, so that needs to be addressed before anything else*

   Response: DTS is coordinating with other projects along the alignment in an effort to minimize the disruptions to businesses as these projects get implemented.

10. *In my opinion a great majority of citizens, property owners, tenants, businesses, employees – especially those on the proposed BRT route – are not only not aware of the BRT, but certainly not aware of the serious problems that the BRT would create. I, and several other Dillingham area businessmen, personally walked several blocks of Dillingham Blvd. and talked with over 40 business owners. NOT ONE OF THESE BUSINESS OWNERS KNEW WHAT BRT WAS! We have petitions people signed that were concerned about BRT, by over 300 people available for your review.*

    Response: Several business owners along Dillingham Boulevard, including you participated in the Kalihi Working Group meetings. One of the stated responsibilities of the working group members was to convey the content of the meetings to others in their organization, and to bring their organizations views to share with the other working group members.

11. *Many of these property owners and businesses, were concerned that that BRT calls for exclusive use of the 2 center lanes along the entire length of Dillingham Blvd. Effectively, 3 lanes out of 5 lanes total, would be unavailable to local traffic. That leaves only one lane in each direction to service Dillingham, and each of those "one" lanes would be shared by cars, local buses, and a proposed bikeway.*

    Response: As documented in Chapter 4 of the FEIS, there will be enough people diverted out of the cars onto public transit for Dillingham Boulevard to operate effectively with one general purpose lane in each direction, plus turn lanes at major intersections. Along half of the route, the general purpose lanes will be extra wide so that stopped and right-turning vehicles will not hold up traffic behind it. Along the other half, bus turnouts will be installed so that stopped buses do not block traffic.

    Because of the diversion of people from autos to transit, even with the BRT lanes, the traffic LOS along Dillingham Boulevard will be equal to or better than conditions with the No-Build Alternative. Additionally, traffic LOS on parallel streets such as N. King Street and Nimitz Highway will be equal to or in most cases better with the BRT than without it.

    Moreover, the exclusive BRT lanes on Dillingham Boulevard will enable Dillingham Boulevard to carry over 3 times the number of people that it can carry today.

12. *This plan would render Dillingham Monday thru Friday to permanent gridlock for local traffic. As it is now, driving in either of the far right lanes, is extremely slow due to local bus stops.*

    Response: See response to comment #11.

13. *A more common sense solution would be to use contra flow and HOV lanes for Dillingham for only rush hour traffic, in the morning and afternoon, allowing automobile traffic the use of those center lanes for all times other than rush hour.*

    Response: While contra-flow lanes, whether they be for HOV or general traffic, could improve traffic flow during peak periods, it would require the elimination of left-turns during the hours of contra-flow operation. This could have a detrimental impact on the many small businesses along Dillingham Boulevard. Also, while the directional imbalance in the A.M. peak period might allow for a contraflow lane, there is not the same imbalance by direction during the P.M. peak to permit a contraflow operation. Additionally, the benefits to BRT/transit riders would be significantly less than they would be with the Refined LPA, since travel speeds would be 40-50 percent slower.

14. *We don't feel that the public has been fairly notified and involved in the decision making process. This is such a major issue that will dramatically impact everyone in Honolulu, that we are insisting that the City, State and Fed. Do not rush to a decision they might regret.*

Response: The public involvement process on the PCTP has been one of the most extensive outreach efforts ever undertaken on Oahu. The outreach process started in 1989 with gathering public input to create and refine the Islandwide Mobility Concept Plan. Hundreds of meetings have been held where the project has been presented and discussed. Seven Progress Reports (newsletters) have been produced and sent to over 10,000 people on the project's mailing list. Also, working groups were formed in communities along the project alignment to discuss and refine the project. Public involvement has been an integral part of project development and will continue to be an important part of the project.

15. *We have been told at each of the countless BRT meetings that there have been many meetings, public notices and hearings and that everything possible has been done to inform the community of the BRT. Unfortunately the reality is that vast majority of the public don't have a clue as to the reality of what is planned. And it won't be until the actual construction starts that the real community sentiment will then rear its "ugly head."*

Response: See response to comment #14.

16. *We think that if there are to be long term workable solutions that there must be compromise from both affected property owners/businesses and our representatives. And to reach those solutions all parties must first be aware of what is being discussed, which we don't think is the case. Then the dialectic and discourse can commence to hammer out viable, acceptable transportation solutions.*

Response: See response to comment #14.

17. *Aren't we trying to solve rush hour traffic? What is the agenda here? And Dillingham is just one example along the entire BRT route. What about the rest of the route and its impact?*

Response: As shown in Chapter 4 of the FEIS, traffic conditions in general all along the alignment during the peak hours will be better with the BRT than without it.

18. *We believe that the simple combination of, contraflow, HOV lanes, parking innovations, use of private buses and vans, bike ways, and getting uninsured drivers off the roads would lead to much better results than the BRT.*

Response: Comment noted.

19. *Are our elected representatives willing to go on the record as those who has approved massive traffic gridlock in the Primary Corridor? Are they willing to rush to that decision when there has not been proper public notice and consequent informed feedback?*

Response: Comment noted. See response to comment #14, above.

20. *Have each of these elected representatives done any of the following:*

a. Studied the BRT "Primary Corridor Trans. Project" as per the draft of the Conceptual Design Drawings, technical Appendix B?

b. Drive the route with the above Design draft in mind and envisioned the impact?

c. Actually spoke with most of their constituents about BRT and what is planned?

d. Know the Quality of the information provided as to ridership, demographics, and the actual costs in real (not present) dollars?

e. Know what the operational and maintenance costs of the system will be, what are the ridership projections, how good are those projections, and will low or even average ridership translate into City deficits?

Response: The City Council members have been briefed on the project at each step in the process and have had access to all of the drawings, impact and financial analyses and other data needed to make informed decisions.

21. *There seems to be so many unanswered questions. Private property condemnations, projected ridership and supporting data of BRT, concerns of access to businesses and the consequent economic results, local traffic gridlock, etc?*

Response: The MIS/DEIS, SDEIS, and FEIS contain information regarding displacements and relocations (Chapter 5), ridership (Chapter 4), access to businesses (Chapter 5), and economic effects (Chapter 5).

22. *These are our highways, not the governments. We demand that the BRT be made public to everyone – especially the 92% of our population that drives automobiles. That further it is fully scrutinized by objective experts in design, operation, cost and maintenance, other than those picked by the City.*

Response: Comment noted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6978. We appreciate your interest in the project.

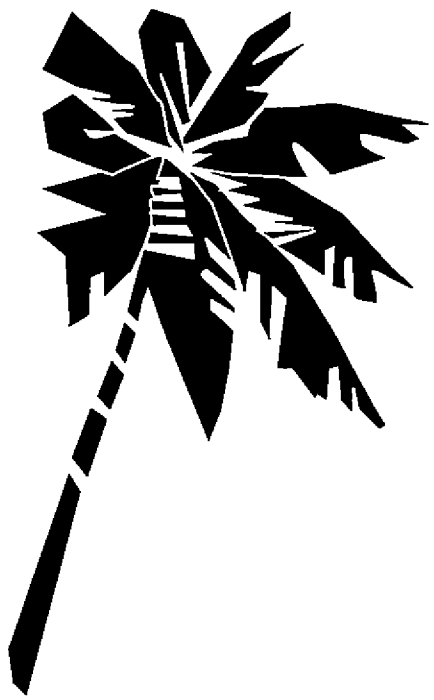
Sincerely,

CHERYL D. SOON
Director

Chapter 7.0

Comments and Responses

Citizens



RECEIVED
Oct 17 1 08 PM '00
CITY CLERK
HONOLULU, HAWAII

10/17/2000

Attn: Gwen, Committee Clerk

In regards to the community meeting being held Thursday Oct. 19,2000.
We are residents/owners at The Lele Pono (AOAO Lele Pono)

We are very much against the proposal of a bus terminal or turn around area being planned for the Kam Drive-in site and we are against the proposed on and off ramps from the H-1 Freeway for Kaonohi Street. The noise level and traffic at this intersection is already unbearable.

Thank you for your time and hearing our views.

Sincerely,

Karl Adams & Mary Lou Zingalie-Adams
Units # 1503 and #1808
808 487-1357
Fax 808 487-1357

Misc. Com. No. 1255

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00530

November 13, 2002

Mr. Karl Adams and
Ms. Mary Lou Zingalle-Adams
98-099 Uao Place, #1503
Aiea, Hawaii 96701

Dear Mr. Adams and Ms. Adams:

Subject: Primary Corridor Transportation Project

This is in response to your October 17, 2000 letter regarding your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

"We are very much against the proposal of a bus terminal or turn around area being planned for the Kam Drive-In site and we are against the proposed on and off ramps from the H-1 Freeway for Kaonohi Street. The noise level and traffic at this intersection is already unbearable."

Response: Please be advised that the transit center site at Kamehameha Drive-In and the on/off-ramp from Kaonohi Street to H-1 have been eliminated from the proposed project.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD02-00531

November 13, 2002

Ms. Naomi Ahuna
47-495 Apau Loop
Kaneohe, Hawaii 96744

Dear Ms. Ahuna:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the April 20, 2002 Public Hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm writing or testifying in support of the Oahu Metropolitan Planning Policies Committee's approval of the City's Bus Rapid Transit Project.*

   Response: We appreciate you supporting the project.

2. *For 11 years, I worked for the Island County Public Transportation Benefit area in Washington state, and I personally witnessed the effects of public transportation on people's lives. BRT will increase mobility opportunities and play a vital role in improving economic opportunities for all citizens.*

   Response: We concur.

3. *BRT can decrease overall commute time, improve air quality, and increase their personal disposable income. Who wouldn't want an extra $700 per month in their pocket? No more monthly parking fees, gasoline, car payments or car insurance.*

   Response: We appreciate your insight into the benefits an individual may realize from the BRT system.

4. *The infusion of millions of dollars in Federal and City funds, coupled with additional personal income, is what the City and County of Honolulu needs to revitalize the local economy.*

   Response: We concur it is a good opportunity for Honolulu to capitalize on federal funds.

5. *Even if you may not personally ride the bus or vanpool or carpool, you can still benefit from BRT. Those same folks who will use BRT may be the same patrons who can now afford to frequent you restaurants and businesses more often. I am one of those thousands of Hawaii-born young people who left the islands because of the economy in the 1980s. I'm part of the phenomenon called the brain drain.*

   Response: Thank you for presenting additional project benefits.

6. *I see BRT as a vehicle to provide employment opportunities and a mechanism to retain the best and brightest citizens of our state.*

   Response: We concur.

7. *BRT has proven itself in other metropolitan cities in the United States by providing the transportation infrastructure to move people efficiently and effectively. If you don't go through with the BRT project, we have once again failed to step up to the plate and make things happen.*

   Response: Again, thank you for supporting the project and taking the time to attend the public hearing and share you views.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under seperate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00532

November 13, 2002

Mr. David Aki
811 Middle Street
Honolulu, Hawaii 96819-2316

Dear Mr. Aki:

Subject: Primary Corridor Transportation Project

This is in response to your April 20, 2002 Public Hearing comments regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *First of all, I'm an employee of TheBus Company. I've been with TheBus Company for almost two and a half decades. I've participated in two hurricanes and three floods regarding evacuating people. I'm here, basically, to learn from all of you leaders on how I'm going to make my decision on what I need to decide on. And, basically, my job as an operator is to do whatever the community wants us to do, okay.*

   Response: We appreciate you taking the time to attend the public hearing and learn more about the proposed project.

2. *My concern is for – mostly for the seniors, okay. It's for the welfare of everybody, but especially the seniors. I'm getting older. I want the seniors to have the best, so at least when I get up there, I know I got something to look forward to.*

   Response: The BRT will provide a transportation alternative for all Honolulu citizens.

3. *I move almost 400 people a day from four in the morning to 12 in the afternoon. At 9:54 in the morning, I move 47 people from River Street to Hotel to Bishop Street, four blocks. I'm concerned about the people that had the estimated times pertaining to how far it was going to take them from Kapolei to downtown. The key word was "estimated."*

   Response: The estimated future travel times reflect a different method of bus operations than exists today. The BRT will be operating in the zipper lane along H-1, and with a limited number of stops in-town, often in priority lanes free from congestion, with vehicles and platforms designed to facilitate much faster passenger boarding and exiting than is possible today. With the In-Town BRT, passengers will be able to board and alight from a platform at the same height as the bus floor; and, they will be able to use any of 3 doors.

4. *I drove the route Makaha from December to March. That takes an hour and 45 minutes. Now, I believe the estimated time on the paper was 30 something minutes. I'm sure you estimated picking up people, not just driving from point A to point B. Because the elderly need a little bit more time to board the buses, okay. And we need to make sure that we give a fair estimated time, okay. Because I can tell you right now, from Kalihi, Middle Street, I leave there at 9:34, I get to Mayor Wright Housing at 9:50. That will never happen.*

   Response: See responses to comments #1 and #2.

5. *It's something they scheduled me to do. But at that time of the day, we have a lot of elderly going to the doctors, going to the shopping, Chinatown, doing their shopping, and it'll never happen. So when you give estimated times, I'd like to ask that you look at the estimated times. And if you need a fair estimate, ask a bus driver. I mean, I apologize. At least we can tell you from behind the wheel, based upon the people we work with and the people we live around, how long at least they take to get on the bus. Okay. And that's basically what I wanted to say.*

   Response: See responses to comments #1 and #2.

6. *As far as I'm concerned, I cannot make a decision if I'm for or I'm against. But I'd like to thank you folks for allowing me to testify. Thank you.*

   Response: Again, thank you for attending the public hearing and expressing your views.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD02-00533

November 13, 2002

Mr. Ronald D. Armenoff
98-099 Uao Place, # 2702
Aiea, Hawaii 96701

Dear Mr. Armenoff:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 19, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I am representing myself as a resident of the Lie Pono. I em opposing the bus terminel proposal at Kam Drive-In for the following reasons.*

   Response: The transit center site at Kamehameha Drive-In has been eliminated from consideration.

2. *As was stated before, I believe the traffic congestion is only gonna get totelly intolereble. At present, during the weekday evenings this traffic typically backs up Moanalua past Pali Momi end ____ up the hill to McGrew Loop Road. Also, mauke going Kaonohi becks up on the left-turn lanes. Presently, weekends are even worse. Moanalua and Kaonohi Streets ere even busier.*

   Response: Thank you for sharing your knowledge of the local traffic conditions.

3. *Where I live, to meke even e turn onto Moanalua is extremely difficult during the day. This is from the Lele Pono driveway on Moanalua. I've mede numerous complaints already to the HPD regarding speeders, reckless drivers and drivers who fail to yield to pedestrians. There heve [been] numerous injury, euto accidents end pedestrian accidents.*

   Response: It is beyond the scope of the PCTP to address speeders, reckless drivers, and drivers who fail to yield to pedestrians.

4. *I have another issue here. It's a safety issue which I have not heard brought up. Typically bus stops attract loitering. At this area, there heve been numerous crimes committed already. There have been thefts, vehicle/home break-ins, assaults.*

   Response: It is beyond the scope of the PCTP to address thefts, vehicle/home break-ins and assaults that are not related to the project. The MIS/DEIS, SDEIS, and FEIS, Section 5.3 address the BRT safety and security.

5. *Another espect is the business aspect. It was stated that Pearlridge would benefit by having this terminel across the street. At present, nearly ell bus routes excepting those which take the freeway already heve very convenient stops on Kam Highway, Moanalua, Kaonohi and Pali Momi Streets adjacent to Pearlridge.*

   Response: The transit center site at Kamehameha Drive-In is no longer a part of the proposed BRT project.

6. *Also, lastly, I think since there is on/off ramps in areas such as the Aloha Stadium or Keahumanu. The Aloha Stedium, I think would be an excellent site for somethlng like this. I don't think there would be an issue with anything such es life, noise or pollution.*

   Response: Aloha Stadium has been identified as a potential transit center/park-and-ride site. In addition, two other transit center sites along Kamehameha Highway are being considered for the Pearl City/Aiea area including a site at the former Jim Siemons Auto Dealership, and a site near Waimano Home Road between Chevron and the Pearl City Business Plaza. The Manana Bus Maintenance Facility on Waimano Home Road was evaluated as a potential transit center site, but eliminated due to insufficient space within the facility. A new BRT-exclusive ramp is being proposed because existing freeway on-ramps and off-ramps are heavily utilized. The new BRT-exclusive ramp proposed would be located near Aloha Stadium at Luapele Drive. This ramp would be reversible, providing access directly into the Zipper Lane during the A.M. peak period and egress from the Zipper Lane to Luapele Drive during the P.M. peak period.

7. *Also, this area on the Waimano Home Road where the library where there's this current maintenance facility being constructed at present. I believe those would be much better sources.*

   Response: The concept of providing a transit center at the Manana Bus Maintenance Facility was evaluated and eliminated due to insufficient space within the facility.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under seperate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PT11/R-5303

RECEIVED
'00 NOV -2 A9:21
PUBLIC TRANSIT
DIVISION

Cheryl Soon Director
Dept. of Transportation Services
711 Kapiolani Bl.
Honolulu, Hawaii 96813

October 30, 2000

re: proposed **Regional Transit Center** at Kaonohi Street and Kam Drive-in

Dear Cheryl,

We are opposed to Bus Terminal at the Kam Drive-in site for the following reasons:

1. Increased traffic congestion

A. This proposal will only make the current traffic situation unbearable.
1. At present the proposed area has extrema congestion, which occurs frequently.
   a. traffic typically becks-up on Moanalua Rd. (Waipahu-bound) from Kaonohi past Pali Momi Rd. and up the hill towards Mcgrew Pt. Rd.
   b. Kaonohi left turn lane (mauka-bound) typically backs-up from Moanalua, down the hill towards Circuit City.
   c. Kaonohi(makai-bound) backs-up from Moanalua up the hill towards the freeway.
      1. this is the immediate area of the proposed Zipper-Lane on/off ramp.
      2. an extremely large number of commuters mauka of the freeway would be affected.
   c. weekends, and holidays are even worse.

B. Proposed area has a local elementary school, and church in the immediate area.

2. Safety Issue

A. Speeders, reckless drivers, and drivers failing to yield to pedestrians are already a frequent problem:
1. presently there have already been **numerous** injury auto, and pedestrian accidents in this immediate area.

B. Bus stops typically attract loitering, and bus-stop crime is a fairly frequent occurence
1. Presently numerous crimes have occurred in this immediate area already:
   a. abductions, attempted rapes, assaults, robberies and on Sept. 30th, an **attempted murder** of two boys **at a bus stop** on Kam Highway in front of Pearlridge.
   a. Vehicle thefts, thefts from parked vehicles, homes and pedestrians are a fairly common occurance,

3. Business Aspect

A. It was stated during several past meetings that Pearlridge Center would benefit by having this transit center across the street from Pearlridge.
1. Presently nearly **all** current bus routes between Honolulu, and Kapolei(excepting those which bypass Aiea, by taking the freeway) already have very convenient stops at Pearlridge.
   a. bus-stops on Kam highway, Moanalua, Kaonohi, and Pali Momi St, adjacent to Pearlridge already exist.

continued...

4. Conclusion

A. Other exceptable sites are available where freeway on/off-ramps already exist, and congestion,pollution,lights, and noise would not pose a problem.
1. Aloha Stadium
2. Waimanano Home Rd.
   a. a bus maintaintence facility is at present under construction already.

B. The City and State would do well saving the taxpayers additional millions of dollars by using an area with an already pre-existing on/off ramp.

Sincerely,

Ronald D. Armeneff
Tonja Taylor
P.O. Box 1988/ 98-099 Uao Pl. #2702
Aiea, Hawaii 96701
(808) 486-3052

Patricia J. Ho
98-1451 Kanohi St.
Aiea, Hawaii 96701

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05303R

November 13, 2002

Mr. Ronald D. Armenoff and
Ms. Tonia Taylor
98-099 Uao Place, #2702
Aiea, Hawaii 96701

Dear Mr. Armenoff and Ms. Taylor:

Subject: Primary Corridor Transportation Project

This is in response to your October 30, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We are opposed to Bus Terminal at the Kam Drive-in site for the following reasons.*

   Response: A series of meetings were held with the Pearl City-Aiea Working Group. Participants in this group represented a cross-section of interests in the area. Based on discussions in the working group, a revised transit plan was developed that eliminated the bus ramps at Kaonohi Overpass and relocated and split the transit center formerly proposed at Kamehameha Drive-In into two smaller transit centers located along Kamehameha Highway at the former Jim Siemons auto dealership site and at Aloha Stadium. A third transit center site may be provided at the site near Hale Mohalu. Contra-flow HOV lanes on Kamehameha Highway are also being considered. Local bus service on Kamehameha Highway will be maintained.

2. *This proposal will only make the current traffic situation unbearable. At present the proposed area has extreme congestion, which occurs frequently. Traffic typically backs up on Moanalua Rd. (Waipahu-bound) from Kaonohi past Pali Momi Rd. and up the hill towards Mcgrew Pt. Rd. Kaonohi left turn lane (mauka-bound) typically backs up from Moanalua, down the hill toward Circuit City. Kaonohi (makai-bound) backs up from Moanalua up the hill towards the freeway. This is the immediate area of the proposed Zipper-Lane on/off ramp. An extremely large number of commuters mauka of the freeway would be affected. Weekends, and holidays are even worse.*

   Response: See response to comment #1.

3. *Proposed area has a local elementary school, and church in the immediate area.*

   Response If you are referring to the proximity of Kamehameha Drive-In to area schools and churches, the transit center site at Kamehameha Drive-In has been eliminated from consideration.

4. *Speeders, reckless drivers, and drivers failing to yield to pedestrians are already a frequent problem. Presently there have already been <u>numerous</u> injury auto, and pedestrian accidents in this immediate area.*

   Response: See response to comment #1.

5. *Bus stops typically attract loitering, and bus-stop crime is a fairly frequent occurrence. Presently numerous crimes have occurred in this immediate area already: abductions, attempted rapes, assaults, robberies and on Sept. 30th, an <u>attempted murder</u> of two boys <u>at a bus stop</u> on Kam Highway in Pearlridge. Vehicle thefts, thefts from perked vehicles, homes and pedestrians are a fairly common occurrence.*

   Response: See response to comment #1.

   System security will be provided to protect the public and the transit system from crime and vandalism. . A comprehensive System Security Plan will be prepared during the final design phase to address passenger security, employee security, revenue security, vandalism, theft, crowd control, power/mechanical failures, fires, accidents, and other incidents. Security may include a combination of on-site personnel, special transit police, local police, video surveillance, and physical design features.

6. *It was stated during several past meetings that Pearlridge Center would benefit by having this transit center across the street from Pearlridge. Presently nearly <u>all</u> current bus routes between Honolulu, and Kapolei (excepting those which bypass Aiea, by taking the freeway) already have very convenient stops at Pearlridge. Bus stops on Kam highway, Moanalua, Kaonohi, and Pali Momi St., adjacent to Pearlridge already exist.*

   Response: See response to comment #1.

7. *Other acceptable sites are available where freeway on/off-ramps already exist, and congestion, pollution, lights and noise would not pose a problem: 1. Aloha Stadium 2. Waimanalo Home Rd. (a bus maintenance facility is presently under construction already.) The City and State would do well saving the taxpayers additional millions of dollars by using an area with an already pre-existing on/off ramp. The City and State would do well saving the taxpayers additional millions of dollars by using an area with an already pre-existing on/off ramp.*

   Response: Aloha Stadium has been identified as a potential transit center/park-and-ride site. In addition, two other transit center sites along Kamehameha Highway are being considered for the Pearl City/Aiea area including a site at the former Jim Siemons Auto Dealership and a site near Waimano Home Road between Chevron and the Pearl City Business Plaza. The Menana Bus Maintenance Facility on Waimano Home Road was evaluated as a potential transit center site and eliminated due to insufficient space within the facility. A new BRT-exclusive ramp is being proposed because the existing freeway on-ramps and off-ramps are heavily utilized. The new BRT-exclusive ramp proposed would be located near Aloha Stadium at Luapele Drive. This ramp would be reversible providing access directly into the Zipper Lane during the A.M. Peak Period and egress from the Zipper Lane to Luapele Drive during the P.M. Peak Period.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00575

November 13, 2002

Ms. Patricia J. Ho
98-1451 Kaonohi Street
Aiea, Hawaii 96701

Dear Ms. Ho:

Subject: Primary Corridor Transportation Project

This is in response to your October 30, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *We are opposed to Bus Terminal at the Kam Drive-in site for the following reasons.*

   Response: The transit center site at Kamehameha Drive-In has been eliminated from consideration.

2. *This proposal will only make the current traffic situation unbearable. At present the proposed area has extreme congestion, which occurs frequently. Traffic typically becks up on Moanalua Rd. (Waipahu-bound) from Kaonohi pest Pali Momi Rd. and up the hill towerds Mcgrew Pt. Rd. Kaonohi left turn lane (mauka-bound) typically backs up from Moanalua, down the hill toward Circuit City. Kaonohi (makai-bound) becks up from Moanalua up the hill towards the freeway. This is the immediate eree of the proposed Zipper-Lane on/off ramp. An extremely large number of commuters mauka of the freeway would be effected. Weekends, and holideys ere even worse.*

   Response: The transit center site at Kamehameha Drive-In and the on/off-ramp from Kaonohi Street to H-1 have been eliminated from consideration.

3. *Proposed area has a local elementary school, and church in the immediate area.*

   Response: If you are referring to the proximity of Kamehameha Drive-In to area schools and churches. The transit center site at Kamehameha Drive-In has been eliminated from consideration.

4. *Speeders, reckless drivers, and drivers failing to yield to pedestrians are already a frequent problem. Presently there heve already been **numerous** injury auto, and pedestrian accidents in this immediate aree.*

   Response: The transit center site at Kamehameha Drive-In and the on/off-ramp from Kaonohi Street to H-1 have been eliminated from consideration.

5. *Bus stops typically attract loitering, and bus-stop crime is a fairly frequent occurrence. Presently numerous crimes have occurred in this immediate area already: ebductions, attempted repes, esseults, robberies and on Sept. 30th, an **attempted murder** of two boys **at a bus stop** on Kam Highway in Peerlridge. Vehicle thefts, thefts from parked vehicles, homes and pedestrians are a feirly common occurrence.*

   Response: The transit center site at Kamehameha Drive-In has been eliminated from consideration. However, a transit center at the former Jim Siemons auto dealership site is being proposed.

   System security will be provided to protect the public and the transit system from crime and vandalism. A comprehensive System Security Plan will be prepared during the final design phase to address passenger security, employee security, revenue security, vandalism, theft, crowd control, power/mechanical failures, fires, accidents, and other incidents. Security may include a combination of on-site personnel, special transit police, local police, video surveillance, and physical design features.

6. *It was stated during several pest meetings that Peerlridge Center would benefit by having this transit center across the street from Peerlridge. Presently nearly all current bus routes between Honolulu, and Kapolei (excepting those which bypass Aiea, by taking the freeway) already have very convenient stops at Peerlridge. Bus-stops on Kam highway, Moanalua, Kaonohi, and Pali Momi St., adjacent to Peerlridge already exist.*

   Response: A series of meetings was held with the Pearl City-Aiea working group. Participants in this group represented a cross-section of interests in the area. Based on discussions in the working group, a revised transit plan was developed that eliminated the bus ramps at Kaonohi Overpass and relocated and split the transit center formerly proposed at Kam Drive-In into two smaller transit centers located along Kamehameha Highway at the former Jim Siemons Auto Dealership site and at Aloha Stadium. A third transit center site may be provided at the site near Hale Mohalu. Contraflow lanes on Kamehameha Highway would provide transit priority with freeway access from Salt Lake Boulevard to H-1. Local bus service on Kamehameha Highway will be maintained.

7. *Other acceptable sites ere evellable where freeway on/off-ramps already exist, and congestion, pollution, lights and noise would not pose a problem: 1. Aloha Stedium 2. Weimanalo Home Rd. (a bus meintenence fecility is presently under construction already.) The City and Stete would do well saving the taxpeyers additionel millions of dollars by using an area with en already pre-existing on/off remp. The City and Stete would do well saving the taxpeyers additional millions of dollars by using en area with an already pre-existing on/off remp.*

Response: a) Aloha Stadium has been identified as a potential transit center/park-and-ride site. In addition, two other transit center sites along Kamehameha Highway are being considered for the Pearl City/Aiea area including a site at the former Jim Siemons Auto Dealership and a site near Waimano Home Road between Chevron and the Pearl City Business Plaza. The Manana Bus Maintenance Facility on Waimano Home Road was evaluated as a potential transit center site and eliminated due to insufficient space within the facility. A new BRT-exclusive ramp is being proposed because the existing freeway on-ramps and off-ramps are heavily utilized. The new BRT-exclusive ramp proposed would be located near Aloha Stadium at Luapele Drive. This ramp would be reversible providing access directly into the Zipper Lane during the A.M. Peak Period and egress from the Zipper Lane to Luapele Drive during the P.M. Peak Period.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
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CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00534

November 13, 2002

Mr. David Atkin
2169 Ahaku Place
Honolulu, Hawaii 96821

Dear Mr. Atkin:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 Public Hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *Good afternoon, and thank you for listening to my testimony. I'm speaking today just representing my own personal views.*

   Like it or not, there will be growth. Like it or not, there will be increase in travel demand. Like it or not, there will not be an increase in roads in the urban area. Therefore, there will be an increase in congestion.

   Response: This comment is consistent with the FEIS findings.

2. *What are we to do? We need to provide an attractive alternative to travel without having to drag two tons of metal with you wherever you go. The only way to do this is to enhance the travel times delivered by public transit and to enhance the public transit experience. The BRT system will do this.*

   Response: We concur.

3. *I have a friend who says that the middle class people won't ride buses. I lived on the mainland most of my life and middle class people do ride buses when they provide travel time savings and decrease the stress of sitting in traffic.*

   Response: Comment noted.

4. *Plus, as a society, we need to consider those among us who are dependent on public transit for their mobility: The elderly, the young, the handicapped, and those who can't afford private automobiles. We have an obligation to meet their mobility needs. And as the average age of the population increases, a high quality public transit system becomes ever more important.*

   Response: This comment is consistent with the FEIS findings.

5. *The system must include a firm and irrevocable commitment to mitigate its adverse environmental impacts. We live here, and we are a tourist destination. We will lose tourism if we don't maintain the qualities that make us a tourist destination. We need to be willing to pay the additional costs to fully mitigate our adverse environmental impacts.*

   Response: DTS has been vigilant in identifying the potential environmental impacts of the proposed project. The costs of various mitigation measures are being incorporated into the project costs.

6. *What will happen if we do not do this? The cost of the system that will ultimately be implemented will increase. The benefits of implementing the system now will be lost. The amount of federal funding available to Honolulu will decrease. There will never be the perfect system. We have to make the beginning now.*

   Response: This comment is consistent with the FEIS findings.

7. *I have been in many cities with modern transit. The people in those cities have come to rely heavily on their systems. They're expanding their systems. Visitors can't believe we don't already have LRT or BRT. Mainland cities will be happy to spend the federal funds that we will be spurning if we don't go forward.*

   Response: Comment noted.

8. *BRT will also help us kick our oil addiction. By eventually using electric buses, with the electricity produced from renewable resources, we will be able to displace oil and replace our dependence on the politics of the Middle East.*

   Response: Comment noted. DTS does not dispute this statement.

9. *Over the long term, transportation improvements improve the quality of life for everyone directly and indirectly. H-3 has shown us.*

   Response: Comment noted. DTS does not dispute this statement.

10. *The near-term adverse environmental impacts need to be mitigated, but we must not let the fear of the adverse impacts paralyze us into immobility and ultimate gridlock. That will decrease the quality of life for us all.*

    Response: Statement/Observation not requiring response.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00535

November 13, 2002

Ms. Ella Autry
1039 Kekaulike Street, Apt. A304
Honolulu, Hawaii 96817

Dear Ms. Autry:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the October 12, 2000 formal Public Hearing and at the October 26, 2000 Special Transportation Committee meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *My family has pacemakers. Other people have family that has pacemakers. If those are going to effect -- I know the microwave does affect them. Are these things going to affect?*

   Response: With the STREAM form of embedded plate technology, the electrical conductor is insulated under the ground and there should be no harmful effects. However, there is a magnetic zone around the vehicle of 5 Gauss which could impact a Pacemaker. Any system before it is accepted for revenue service will be tested to determine if the magnetic zone is detectable on and near the vehicles. The manufacturer will need to develop a method to insulate passengers from electromagnetic impacts.

2. *What I'm saying is that this island is so small. Why do they need this kind of thing that go around? They're not big like Japan, the mainland.*

   Response: The primary transportation corridor is over 25 miles long. Among many other benefits the proposed BRT system will save people over 78,000 hours of delay daily, while reducing air pollution and energy consumption.

3. *"I don't go for this electrical bus because for one thing I have family who has pacemaker and they cannot be near to a microwave. Okay. And they are going to put this thing on the road, under the ground. Okay. Waikiki, Ala Moana and what not and Kakaako. Already the pipes are broken.*

   What you folks want to do? We not like the people in the mainland. We dress different. We walk slipper. What you folks wanna do? Cook us. We already papa'a. We no need get more burnt. Because I'm worried about my family and I know some of these people out here has family and has that. So, I'm just thinking. I want answers. What you folks want? Papa'a us? We already papa'a."

   Response: See response to comment #1.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00536

November 13, 2002

Mr. Gary Bautista
c/o Advance Til Payday
94-210 Hanawai Circle
Waipahu, Hawaii 96797

Dear Mr. Bautista:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the October 19, 2000 Special Transportation Committee Meeting regarding your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

"I'm actually from Ewa. I missed the Kapolei meeting. My question is about North/South Road. Director said that it is committed. However, a lot of the residents from that area say this is not tied into the North/South Road. They cannot see it end the map that it is tied in. Is it tied in?"

Response: The North-South Road project per say is not a part of the Primary Corridor Transportation Project although a park-and-ride is proposed at the intersection of North-South Road and the H-1 freeway.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00537

November 13, 2002

Mr. Kent Bennett
1323 Hala Drive
Honolulu, Hawaii 96817

Dear Mr. Bennett:

Subject: Primary Corridor Transportation Project

This responds to your oral testimonies regarding the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). You testified at the October 5, October 26, 2000 and November 14, 2000 Special Transportation Committee Meetings and at the October 12, 2000 Public Hearing. Your testimonies provided us with the following comments for which we have prepared responses.

1. *I think the Department of Transportation Services would have proposed an elevated busway above the Nimitz Highway connecting the downtown area to the H-1 Freeway viaduct at Middle Street if this had not already been emotionally rejected by the Kalihi community leaders. Barring going around or under Kalihi, the City was stuck with going through Kalihi with all the inevitable problems.*

   Response: At the outset of the project, attendees at public meetings indicated that elevated guideway solutions were not acceptable. By working with community representatives and business people from Kalihi, solutions have been developed along Dillingham Boulevard that give priority to BRT vehicles, maintain access to businesses, and allow for sidewalk and streetscape improvements.

2. *Kalihi Kai posed a special problem because it is a commercial/industrial area. Being restricted to the right lane on each side of Dillingham Boulevard because of the two exclusive transitway lanes in the middle, poses a problem for many commercial-size vehicles. Many of these commercial vehicles will not be able to turn right onto Dillingham because the turn from right lane to right lane is too sharp or narrow. For the same reason, these vehicles will not be able to make right turns into or out of narrow driveways facing Dillingham. Mid block, left turns across the exclusive transitway lanes will be prohibited making access to these driveways impossible.*

   Response: The proposed cross-section for Dillingham Boulevard is two exclusive transit lanes and two 18-foot wide traffic lanes. Wider traffic lanes will enable most trucks to turn into and out of driveways. Because transit lanes will be delineated with raised pavement markings, it will be possible for trucks to intrude into the transit lanes when necessary to complete a difficult turn. Alternative access routes have been identified for many parcels along Dillingham Boulevard, and improvements are proposed to make these routes more usable, such as signalization of intersections where they cross major roadways.

3. *Of course, cutting the roadway capacity in half is going to cause congestions for local and commercial traffic.*

   Response: Updated transportation analyses in the FEIS show that with full implementation of the Refined LPA, there will be a significant mode shift on Dillingham Boulevard and roadways parallel to it. This shift of person travel from auto to transit along with capacity enhancements to Nimitz Highway planned by the HDOT will allow Dillingham Boulevard to operate at traffic service levels comparable to the No-Build and TSM Alternatives even with fewer general purpose traffic lanes. This analysis is includes in Chapter 4 of the FEIS.

4. *With the BRT in place, all riders in Kalihi Kai will have to walk down to the Dillingham Shopping Plaza to catch it as this is the only planned stop for all of Kalihi Kai. It is not feasible to also continue the regular buses as they would block the only vehicle lane at each stop. Additional BRT stops would take the rapid out of Rapid Transit.*

   Response: Local transit service on Dillingham Boulevard will be maintained, thereby providing convenient transit access for those choosing not to utilize the BRT stops at McNeill Street and Alakawa Street. To accommodate local transit service without blocking traffic lanes, 18-foot wide lanes are proposed on Dillingham Boulevard, Ewa of Waiakamilo Road. Koko Head of Waiakamilo Road, bus pullouts will be provided so that local transit can pull out of the way of vehicular traffic.

5. *Leeward commuters would also be better off zipping all the way to town on an elevated busway than stopping at Middle Street transit center and taking the time to transfer to the BRT which will have scheduled stops as well as a couple red lights along the route. From what I have seen, the State has spent much more time and money on the elevated busway than the City has spent studying the Dillingham alignment for the BRT.*

   Response: The BRT operations plan has been refined to permit many of the regional buses to continue into town using the In-Town BRT bus lanes rather than turning back at Middle Street and forcing passengers to transfer. This will make for a speedier one-vehicle trip for many riders. The BRT, being at-grade on Dillingham Boulevard, will allow residents of Kalihi to use the system and for businesses along Dillingham Boulevard to market to BRT riders. An elevated busway on Nimitz Highway would not benefit the Kalihi community.

6. *So, for those who say we should get going on something. I say just substitute the elevated busway for the BRT down the middle of Dillingham Boulevard and get a move on.*

   Response: An elevated busway on Nimitz Highway was opposed by the Kalihi community in the past.

7. *One, the BRT will have only one transit stop for all of Kalihi-Kai, and other buses would block the only vehicular lane provided.*

   Response: Local transit service on Dillingham Boulevard will be maintained, thereby providing convenient transit access for those choosing not to utilize the BRT stops at McNeill Street and Alakawa Street. To accommodate local transit service without blocking traffic lanes, 18-foot wide lanes are proposed on Dillingham Boulevard, Ewa of Waiakamilo Road. Koko Head of Waiakamilo Road, bus pullouts will be provided so that local transit can pull out of the way of vehicular traffic.

8. *Two, banning mid-block left turns and not allowing trucks which have a large turning radius into the exclusive transit lanes will make some pickups and deliveries impossible.*

   Response: The proposed cross-section for Dillingham Boulevard is two exclusive transit lanes and two 18-foot wide traffic lanes. Wider traffic lanes will enable most trucks to turn into and out of driveways. Because transit lanes will be delineated with raised pavement markings, it will be possible for trucks to intrude into the transit lanes when necessary to complete a difficult turn. Alternative access routes have been identified for many parcels along Dillingham Boulevard, and improvements are proposed to make these routes more usable, such as signalization of intersections where they cross major roadways.

9. *However, to see the forest for the trees, we know there will always be problems if rapid transit and local traffic are on the same grade level.*

   Response: Grade-separated transit would provide the highest level of transit service. Even then, it is not without impacts at ground level and is much more expensive than at-grade transit. Because of the high cost and visual impacts, elevated transit was eliminated by the City Council as an option early on in the PCTP.

10. *Kalihi will have to give in to all kinds of problems that we don't perceive now before the BRT is completed. However, even after the BRT has been running for a year, Kalihi will probably have to yield even more. If ridership is too low on the BRT because of too many stops, traffic signals will probably be yanked at Dillingham and less-traveled cross streets, allowing right turns only after stopping at a stop sign. Of course, this would cause even more detours and further congestion at the remaining cross signals.*

    Response: The Refined LPA maintains existing traffic signals along Dillingham Boulevard. Because these are existing signals, they do not depend on the BRT.

11. *It is clear to me that the State's elevated busway over Nimitz Highway is much better for Kalihi than the BRT down on Dillingham, and I am sure Leeward commuters would rather zip all the way to a downtown transit center in Iwilei. We have had double-decking for many years now. What business, industry, jogger or biker is complaining about the double-decking that is already in place?*

    Response: An elevated busway on Nimitz Highway could be compatible with the BRT concept. The Refined LPA is designed to provide expedited intra-urban transit service as well as service between suburban and the urban area. As such, it needs to have transit stops that can be accessed by foot; hence the Dillingham corridor. It is envisioned that as part of the overall transit system, many peak period express buses will be maintained. These do not stop between the suburban areas and their urban destinations. These could be potential candidates to utilize an elevated busway on Nimitz Highway should that project proceed. It should be noted however that an elevated busway on Nimitz Highway is not part of the current OMPO TOP 2025 transportation plan for Oahu.

12. *Taking away the two middle lanes of Dillingham Boulevard for the Bus Rapid Transit is an obvious win/lose type of solution. Because the Bus Rapid Transit would be competing with Kalihi Kai commercial, industrial and personal traffic for signal time, road space and convenience.*

Response: The proposed configuration of Dillingham Boulevard provides a balance between the need for expedited transit and the need for auto and truck access and circulation. Chapter 4 of the FEIS fully discusses the consequences of converting two general purpose lanes on Dillingham Boulevard to priority use by transit vehicles.

When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

13. *The insidious nature of this win/lose solution surfaces after the major investment has been made. Because then, the Bus Rapid Transit must be the winner. If the Rapid Transit is under-performing, verbal concessions to the community may have to be retracted and the community may have to sacrifice even more. For example, if local traffic is banned from crossing Dillingham or making left turns onto Dillingham at less traveled intersections, the Rapid Transit would win by not having to stop at these intersections. The loss of the local traffic would be more inconvenience and further congestion at the already congested intersections. Most people would agree that a win/lose type of solution should be avoided, if possible. And in Kalihi Kai that is possible.*

    Response: Comment noted.

14. *An elevated busway above Nimitz Highway connecting the downtown area to the H-1 viaduct at Middle Street is a win/win solution because both local traffic and through traffic win by being separated from each other. With increased road space, convenience and signal time for the local traffic.*

    Response: See response to comment #6.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00538

November 13, 2002

Ms. Martha Black
1314 Kalakaua Avenue, Apt. 606
Honolulu, Hawaii 96826

Dear Ms. Black:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 26, 2000 Special Transportation Committee Meeting regarding your comment on the MIS/DEIS.

> *"I hate to see building and construction added to whatever we have, I hate to see the views impeded. I hate to see the natural look of the environment and the views of the mountains changed. But if we can do it with ground transit and have ways to get up into the small communities I think that would be great. But I do think we do need some kind of a transportation solution."*
>
> Response: The Bus Rapid Transit (BRT) Alternative will involve constructing transit centers and reconstruction of some of the roadways. The BRT would not impede any of Oahu's views because the vehicles do not require overhead wires. The BRT will operate on existing roadways. Circulator bus routes would provide access from transit centers into neighborhoods and commercial districts and feed the In-Town BRT system.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Testimony
Resolution 00-249
Transportation Committee Meeting
November 14, 2000

RECEIVED
NOV 14 10 09 AM '00
CITY CLERK
HONOLULU, HAWAII

Chairman Bainum
Members of the Committee

What goes around, comes around.

In my lifetime, I have seen the horse and buggy go by the wayside and the electric car displaced by the gas guzzling automobile. I have seen the city streetcar come and go and the inter-urban system's demise. I have seen the growth of the bus as a primary method of transportation

I grew up with a Franklin Touring Car as my secondary method of transportation. The primary mode was the streetcar. Our family outings were Sunday in our 7 passenger automobile.

In my lifetime, I have enjoyed the Chicago "El" as a means of getting to work. I have used the subway systems in New York, Washington D.C. and Hong Kong. I have used the People Mover in Denver and the Hub and Spoke system into the neighborhoods of Kowloon.

We are now considering a public transportation system capable of handling the growth of our island. Nothing has really changed in my lifetime. We are talking of electric/gas vehicles, rights of way and high capacity buses. The automobile is still in and the horse and buggy is still out.

The immediate approval and rapid implementation of the Primary Corridor Transportation System becomes a necessity to alleviate the future movement of people and traffic on our island.

What goes around comes around.

1717 Ala Wai Boulevard
Honolulu, HI. 96815

Misc. Com. No. 1349

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00539

November 13, 2002

The Family of Sam Bren
1717 Ala Wai Boulevard
Honolulu, Hawaii 96815

Dear Bren Family:

Subject: Primary Corridor Transportation Project

This responds to Sam Bren's comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to his testimony at the October 5, 2000 Special Transportation Committee Meeting, his testimony at the November 14, 2000 Special Transportation Committee Meeting, and his November 14, 2000 letter regarding the MIS/DEIS. Part B responds to his oral testimony at the April 20, 2002 public hearing regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *In other words, I'm saying this, if we don't build a complete system that's adequate today for the year 2010 or 2025, we're only kidding ourselves.*

   Response: The BRT Alternative is designed to accommodate transportation needs up to the year 2025.

2. *As far as the circulator route through Waikiki is concerned, it certainly is an advantage. I have said for a long time that the faster we get buses back on Kalakaua Avenue the better off it's going to be because certainly that was the intent and purpose when we took them off to get them back on as quick as possible. I don't want to wait until the year 2010 to get them on.*

   Response: The Bus Rapid Transit (BRT) will operate on Kalakaua and Kuhio Avenues.

3. *Moving the buses going Diamond Head on Kalakaua Avenue is certainly the intent and purpose. As far as the in-town is concerned, the morning traffic that would put all the employees closer to their hotels. It will also provide a circulating system that I think would make a lot more sense not only to residents but to the visitors. Because if I'm going down...I can always ride all the way down Kalakaua Avenue and back Kuhio on a circulator system. If I were a visitor in town, they tell me that I have to walk from Kalakaua Avenue to Kuhio Avenue to catch a bus going in either direction is rather a ridiculous situation. I think that this is wise. Not only would it improve Kuhio but it will certainly enhance Kalakaua Avenue.*

   Response: The Bus Rapid Transit (BRT) will operate on Kalakaua and Kuhio Avenues.

4. *Moving the buses going Diamond Head on Kalakaua Avenue is certainly the intent and purpose. As far as the in-town is concerned, the morning traffic that would put all the employees closer to their hotels. It will also provide a circulating system that I think would make a lot more sense not only to residents but to the visitors. Because if I'm going down...I can always ride all the way down Kalakaua Avenue and back Kuhio on a circulator system. If I were a visitor in town, they tell me that I have to walk from Kalakaua Avenue to Kuhio Avenue to catch a bus going in either direction is rather a ridiculous situation. I think that this is wise. Not only would it improve Kuhio but it will certainly enhance Kalakaua Avenue.*

   Response: The Bus Rapid Transit (BRT) will operate on Kalakaua and Kuhio Avenues.

5. *The immediate approval and rapid implementation of the Primary Corridor Transportation System becomes a necessity to alleviate the future movement of people and traffic on our island.*

   Response: We appreciate his support of the project.

Part B – SDEIS Comments

6. *I also don't agree with some of the misinformation that's been going out relating to the rapid transit system.*

   Response: We appreciate his support of the project.

7. *I grew up in a city that started with 900,000 people. I left when there was 15 million. When you When you went to talk about traffic, don't think about today. We have a jam of traffic today. But take yourself down the line a few years when we have another hundred thousand residents living on our island. We have families that have three and four children that are going to want automobiles. And all of a sudden, our automobile traffic actually would double.*

   Response: To accommodate future growth, the Refined LPA offers a choice so that the future population will not be as auto dependent as they would be without it.

8. *On the other side of the coin, senior citizens do need a basis of transportation. And, unfortunately, the bus system seems to be the universal way that seniors can get around. So don't look at today. Yes, today is today. But when you look down four or five or six or eight or ten years, think about what will be. So Honolulu has two ways to go, either up or out. And, unfortunately or fortunately, it's going up, and it will continue to go up. And once it goes up, we will definitely need what is being planned for today.*

   Response: The BRT will provide Honolulu citizens another transportation mode to choose from for trips.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Jeb P. Brown
509 University Ave., Apt. 804
Honolulu, Hawaii 96826-5008

April 5, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 S. King Street, 3rd Floor
Honolulu, Hawaii 96813

Comments on Primary Cooridor Transportation Project SDEIS

Dear Ms. Soon:

I would like to thank you for the opportunity to offer my comments regarding the Supplemental Draft Environmental Impact Statement (SDEIS) for the Primary Corridor Transportation Project. I offer my comments and concerns in my individual capacity only, not as a member of the McCully-Moiliili Neighborhood Board No. 8 or as a Mid-Town/University Working Group member.

I have reviewed the SDEIS completely and I concur with the document as written and support the project as proposed. However, I raise the following concerns regarding the project that I would like to have addressed or clarified.

(1) The removal of 269 on-street parking spaces in the McCully-Moiliili neighborhood along South King Street, Pensacola Street, Kapiolani Boulevard and University Avenue (See p. 4-24 & 4-25; a total of 296 on-street parking spaces are to be removed as a result of the University Branch of the In-Town BRT systems proposed alignment.) Is there a proposed "mitigation plan" in place to replace these parking spaces with new facilities within the community? And if there is no such plan, can the Mid-Town/University Working Group be reactivated in order to address this issue and any other community issues to come to a "workable and reasonable solution" to the issues raised?

(2) It is news to me as a member of the Mid-Town/University Working Group that there will be street tree impacts to McCully-Moiliili on the University Avenue segment from Kapiolani Boulevard to South King Street that will result in the possible loss of the "Shower Trees" planted in the median of this segment. As I remember from our working group meetings these trees were to be left untouched and in place. And as for the Monkeypod Trees on Kapiolani Boulevard, it is my recollection from our working group meetings that these trees were also going to be left untouched. So please clarify the status of these trees and identify the mitigation measures to be taken if these trees are to now be impacted, and again if there is no "mitigation plan" can the Mid-Town/University Working Group be reactivated to address this issue? I find the possible loss of these trees unacceptable.

I thank you for the opportunity to submit these comments and concerns, and understant that they will be included and appropriately analyzed in the forthcoming Final EIS.

Sincerely,

Jeb P. Brown

Jeb P. Brown

cc: Office of Environmental Quality Control

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01338R

November 13, 2002

Mr. Jeb P. Brown
509 University Avenue, Apt. 804
Honolulu, Hawaii 96826

Dear Mr. Brown:

Subject: Primary Corridor Transportation Project

This is in response to your April 5, 2002 letter and your testimony at the April 20, 2002 public hearing regarding comments on the SDEIS.

1. *I have reviewed the SDEIS completely and I concur with the document as written and support the project as proposed. However, I raise the following concerns regarding the project that I would like to have addressed or clarified.*

   Response: Thank you for reviewing the SDEIS. We appreciate your support of the project.

2. *The removal of 269 on-street parking spaces in the McCully-Moiliili neighborhood along South King Street, Pensacola Street, Kapiolani Boulevard and University Avenue (see p. 4-24 & 4-25: a total of 296 on-street parking spaces are to be removed as a result of the University Branch of the In-Town BRT systems proposed alignment.) Is there a proposed "mitigation plan" in place to replace these parking spaces with new facilities within the community? And if there is no such plan, can the Mid-Town/University Working Group be reactivated in order to address this issue and any other community issues to come to a "workable and reasonable solution" to the issues raised?*

   Response: The 269 spaces cited in your letter appear to be a reference to the 269 unrestricted spaces affected by the King Street portion of the TSM Alternative only, as reported on page 4-24 of the SDEIS, and not to the impacts of the In-Town BRT, discussed on page 4-25 of the SDEIS. The SDEIS reported that the Refined BRT Alternative (now the Refined LPA) would affect 379 restricted spaces and 533 unrestricted spaces. Of that total the University Branch of the In-Town BRT would affect 199 restricted spaces and 343 unrestricted spaces.

   However, the Final EIS will report that further analysis and refinements to the parking impacts indicate that the TSM alternative would affect only 166 spaces, all located on King Street and Beretania Street. Under the Refined LPA, the In-Town BRT will affect a total of 373 unrestricted and 533 restricted parking spaces. Of that total, 199 unrestricted spaces and 343 restricted spaces will be effected along the University Branch. See Section 4.5.2 of the FEIS for more detail about the parking impacts of the TSM and Refined LPA Alternatives.

   As discussed in Section 4.3, in areas where a large concentration of parking spaces will be affected, replacement parking in new off-street parking facilities will be considered, but only if they meet other livable community objectives and are the result of community-based planning.

3. *It is news to me as a member of the Mid-Town/University Working Group that there will be street tree impacts to McCully-Moiliili on the University Avenue segment from Kapiolani Boulevard to South King Street that will result in the possible loss of the "Shower Trees" planted in the median of this segment. As I remember from our working group meetings these trees were to be left untouched and in place. And as for the Monkeypod Trees on Kapiolani Boulevard, it is my recollection from our working group meetings that these trees were also going to be left untouched. So please clarify the status of these trees and identify the mitigation measures to be taken if these trees are to now be impacted. And again, if there is no "mitigation plan" can the Mid-Town/University Working Group be reactivated to address this issue? I find the possible loss of these trees unacceptable.*

   Response: Mitigation has been proposed for all trees affected by the project. The mitigation will consist of relocation on-site, relocation off-site, or removal/replacement in the case of trees that are not in good condition for transplanting. Section 5.7 of the FEIS addresses this issue in greater detail.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

RECEIVED
Oct 18 2 53 PM '00
CITY CLERK
HONOLULU, HAWAII

From: Martin J. Burke [burkem002@hawaii.rr.com]
Sent: Wednesday, October 18, 2000 2:26 PM
To:
Subject: Primary Transportation Corridor

Martin J. Burke
94-823 Leomana Way,
Waipahu, HI 96797-4015

October 18th, 2000

Councilmember Duke Bainum
Chair, Committee on Transportation
Honolulu Hale
Honolulu, Hawaii 96813

Reference: Primary Transportation Corridor EIS

Dear Councilmember Bainum:

Waipahu Neighborhood Board No. 22, on which I serve, meets Thursday, October 19th. Therefore I'll be unable to attend your hearings on the EIS scheduled for that evening.

Had I been able to attend, I would have indicated my support for Alternative 3, the Bus Rapid Transit system. I think it offers the best compromise between cost, flexibility and adaptability. It also appears to hold the best promise for evolution, the integration of new technology over time, component by component, without rendering other components obsolete. While it will cost more up front, I think the added investment will pay dividends over time in reduced operating costs in the context of the entire transportation infrastructure (road construction and repair, etc.)

I realize that no single alternative will please everyone. Yours is a difficult position, but I'm certain that a thorough review and community input will lead you to the same conclusion. I appreciate the opportunity to participate in the review process. Good luck to you and your Committee.

Warm Regards,

Marty Burke

10/18/00

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00540

November 13, 2002

Mr. Martin J. Burke
94-823 Leomana Way
Waipahu, Hawaii 96797-4015

Dear Mr. Burke:

Subject: Primary Corridor Transportation Project

This is in response to your October 18, 2000 letter regarding your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

> *"Waipahu Neighborhood Board No. 22, on which I serve, meets Thursday, October 19th. Therefore I'll be unable to attend your hearings on the EIS scheduled for that evening. Had I been able to attend, I would have indicated my support for Alternative 3, the Bus Rapid Transit System. I think it offers the best compromise between cost, flexibility and adaptability. It also appears to hold the best promise for evolution, the integration of new technology over time, component by component, without rending other components obsolete. While it will cost more up front, I think the added investment will pay dividends over time in reduced operating costs in the context of the entire transportation infrastructure (road construction and repair, etc.)"*

Response: We appreciate you taking the time to review the DEIS and for supporting the project.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00541

November 13, 2002

Mr. Sam Caldwell
98-099 Uao Place
Aiea, Hawaii 96701

Dear Mr. Caldwell:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 19, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *So, I just want to add my two cents to the fact that I'm against placement of the transit center at that location being the Kam Drive-In Theater location for most of the reasons, all the reasons Mr. Ciasia mentioned.*

2. *But, also because the newspaper documented. That summary mentioned that this was supposed to be for a location suitable for Pearl City and Aiea. That's very much into the Aiea and pretty far away from the Pearl City location. I think a location on or over the border into the Pearl City would better serve both communities to start with.*

3. *But the biggest reason I'm against it is because I think it would hurt my property value, increase the noise factor and it's inappropriate use at Kam Center ... It's Kam Drive In it's inappropriate because of the proximity to all the residential properties.*

4. *My condominium building would be the most impacted. But you have several other condominium buildings right around there from noise, etc. and tremendous congestion and traffic problems would come of this if you have the hump there on Kaonohi Street and Moanalua Road which is already... That's probably the most busiest intersection now in the Aiea area. So, cars are backed up in both directions on the rush hours in all directions at that intersection of Kaonohi Street and Moanalua Road. And, I think that...I basically like the transit plan, the BRT or the other method but I just don't think that the exact location of having the transit center at the Kam Drive-In is the best place.*

Response: We appreciate you taking the time to attend the meeting. Please be advised that the Kamehameha Drive-In is no longer being considered as a transit center site.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Primary Corridor Transportation Project
City Council Testimony of Dennis Callan
Further information contact 528-4411

October 5, 2000

Bus or Rail?

Here we go again debating our transportation future. We still do not have a clear consensus as a community on how to deal with traffic congestion. This is evident from recent community meetings, and the vague language of the city's new proposal, and our past history. The city has developed a proposal, but it is rather inconclusive when it comes to the crucial question of type of vehicle for the main line. They seem to be suggesting an experimental electric bus that is only in trial use one place in the world.

I have a better suggestion, based on my many years of being involved with the issue here, and my extensive travels where I have used rail-transit systems in 27 different cities: San Francisco, San Diego, Montreal, Chicago, New York, Boston, Philadelphia, Washington, London, Amsterdam, Heidelberg, Munich, Berlin, Paris, Rome, Geneva, Bern, Vienna, Prague, Budapest, Istanbul, St. Petersburg, Oslo, Stockholm, Buenos Aires, Tokyo and Singapore. In my job as an international tour organizer I'm responsible for efficiently moving groups of Hawaii people around in these cities. These travels have taught me a lot about the effectiveness of different kinds of transit systems.

After much thought on the ramifications, here is my proposal: We have reached the point where we probably do need a light rail trolley system to help the leeward commuters. Buses do not have the comfort level, carrying capacity or speed that rail can provide, and would thus probably not attract as many riders as a new rail system. Rail would offer a smoother faster ride, and the vehicle would be much larger with many more seats. If we are going to take away two lanes of traffic, we should utilize those lanes with the highest passenger capacity possible. This means light rail. It is a reliable off-the-shelf technology that has been in use for a century, and has been continually updated and improved.

There can be no question that rubber-tire buses would provide a less-comfortable ride than rail. The road surface will never be smooth, and the soft suspension therefore required of buses guarantees a bouncy ride that sways back and forth. Rail on the other hand will be perfectly flat and smooth, and the vehicle will not bounce at all. This is no trivial matter, for the greater comfort level will attract many marginal potential riders. For all these reasons we can expect that rail ridership will turn out to be higher than bus.

In 1978 I was strongly against the proposed HART elevated "fixed-guideway" heavy rail system. I even produced a television documentary that attacked it from many angles, and was a leading spokesman for the opposition to rail. During these last twenty years that we have seen traffic grow, many things have changed. Congestion gets more intense as the island gets more developed, while very little has been done to improve public transit. I am still against the idea of an elevated heavy rail system, but the compromise of street-level light rail, which was never really considered previously, is very appealing now.

With a careful analysis we can explore the big issues, such as: Should there be a dedicated right of way in which the trolley is completely separated from automobiles, or a shared right of way, or some kind of combination? The best result for transit would be an exclusive lane

that cars cannot enter, with some exceptions at selected intersections for turning. Probably the only affordable way to build this system is to have most of the transitway at street level, which means the transit vehicles will stop for traffic signals. During rush hour the traffic lights can be synchronized, and can be triggered to turn green by the approaching transit vehicle and automobiles turning into the path of the transit vehicles can be similarly controlled. It also means there would probably be overhead electric wires, but the visual impact can be minimized, and this is one trade-off we might have to make.

Building a completely elevated or underground rapid transit system would be extremely expensive and the public arguments about costs and visual blight would lead right back into the same stalemate we have witnessed for the past two decades. However, it may well be that certain segments of the light rail trolley should be grade-separated at some key intersections, like right here, under Kapiolani at Kalakaua, which is a very busy intersection now and could serve as a transfer hub into Waikiki. In the downtown core, the system could be grade-separated, with the trolley running under Hotel Street and interfacing with street-level buses that would be circulators to disperse commuters to their workplaces. This would create a dynamic transit hub that would stimulate our central business district.

What streets should the transit system run along? An express bus demonstration project could try a variety of routes over a twelve-month period and then analyze the results, before making an irreversible commitment to sink rails into the roadbed. The unfortunate paradox is that the best locations for a trolley are the city streets that are currently the busiest with automobiles, for this is where people want to go. Removing the automobile from selected lanes would not be as traumatic as it might seem, for our busiest streets already have local bus service that is claiming much of the capacity of the curb lane. The pay-off would be much higher capacity for mass transit that will move more riders along much faster, for one lane of rapid transit can carry many more people than several lanes devoted to automobiles.

In the urban center we have three main streets between downtown and the University – Kapiolani, King and Beretania. We could test Kapiolani with "rapid transit" buses in a two-lane system for six months, perhaps with help from parallel streets like Kona and Waimanu. Then try King or Beretania, either with a two-way system on one of them, or separate one-way lines on each. West of downtown we have major opportunities along Dillingham, North King, and Nimitz that can be tried. Preliminary discussion of street selection could be included in future neighborhood meetings that should be held on this issue.

Modifications would have to be made to prepare the streets, including barricading the transit lanes to keep the cars out. Selective street widening at certain transit stops would help enhance traffic flow. For the program to succeed it would need adequate parking lots in the outskirts, such as at Waikele and Aloha Stadium, and there should be efficient feeder and circulator buses available to bring passengers to and from the main line.

Now is a good time to consider rail, for we are not yet firmly committed to a particular plan. We have an activist mayor and the transportation departments of both city and state who are all eager to work together on implementing some solutions. The large numbers of skilled traffic planners and highway workers we already have on the government payroll can tackle the myriad technical details involved in creating this system.

Dennis Callan is president of the Hawaii Geographic Society, and among many past community involvements, was the chairman of the Oahu Metropolitan Planning Organization Citizen Advisory Committee on transportation.

Draft EIS Testimony of Dennis Callan
Further information contact 528-4411

Bus or Rail?

I would like to begin by complementing the City Department of Transportation Services for their hard work, along with their consultants, in putting together this comprehensive traffic proposal for our future. I do agree with the general concepts that are being suggested for us as the best solution, including exclusive use of selected lanes in town for rapid transit.

However I do have one major disagreement with their proposal, and that concerns the type of vehicle for the high capacity in-town line between Middle Street and the University. The city is suggesting an experimental electric bus that is only in trial use one place in the world.

I feel this would be a big mistake. We should instead have a light rail system, similar to that found now in hundreds of cities around the world. Light rail should be put back into the analysis as a viable alternative to be considered, and adopted.

My feeling about this is based on my many years of being involved with the issue here, which began 24 years ago, and my extensive travels where I have used rail rapid-transit systems in 29 different cities: San Francisco, San Diego, Montreal, Vancouver, Toronto, Chicago, New York, Boston, Philadelphia, Washington, London, Amsterdam, Heidelberg, Munich, Berlin, Paris, Rome, Geneva, Bern, Vienna, Prague, Budapest, Istanbul, St. Petersburg, Oslo, Stockholm, Buenos Aires, Tokyo and Singapore. In my job as an international tour organizer I'm responsible for efficiently moving groups of Hawaii people around in these cities. These travels have taught me a lot about the effectiveness of different kinds of rail transit systems.

The city's own Draft EIS admits that light rail would carry more passengers than the BRT. The only significant reason the city raises in the EIS for rejecting light rail is that it would carry too many passengers! This backwards logic is right out of Alice in Wonderland. This shows the city is not looking to create a system of maximum efficiency, and I feel this is a big mistake.

If we are going to take away two lanes of traffic from existing roads in town for transit, we have a social obligation to make sure that we get the highest possible use of those lanes for moving people. That solution is light rail. If we are going to take away two lanes of traffic, we should utilize those lanes with the highest passenger capacity possible.

Along with higher carrying capacity, there is another major factor why I support rail, and that is comfort for the passenger. This is not addressed at all in the EIS.

Buses do not have the comfort level that rail can provide, and would thus probably not attract as many riders as a new rail system. Rail would offer a smoother faster ride, and the vehicle would be much larger with many more seats. There can be no question that rubber-tire buses would provide a less-comfortable ride than rail. The road surface will never be smooth, and the soft suspension therefore required of buses guarantees a bouncy ride that sways back and forth. Rail on the other hand will be perfectly flat and smooth, and the vehicle will not bounce at all. This is no trivial matter, for the greater comfort level will attract many marginal potential riders. And with the greater passenger capacity there is a good chance everyone can find a seat. For all these reasons we can expect that rail ridership will turn out to be higher than bus.

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Another factor not considered in the EIS is reliability. Light rail is a proven off-the-shelf technology that has been in use for a century all around the world, and has been continually updated and improved. On the other hand the proposed BRT is "vaporware" that does not even exist in standard commercial operation yet.

As far as cost, the city's own study shows that rail is not more expensive than BRT, and if you can get higher ridership with rail, it should actually be less expensive than BRT.

In 1978 I was strongly against the proposed HART elevated "fixed-guideway" heavy rail system. I even produced a television documentary that attacked it from many angles, and was a leading spokesman for the opposition to rail. During these last twenty years that we have seen traffic grow, many things have changed. Congestion gets more intense as the island gets more developed, while very little has been done to improve public transit. I am still against the idea of an elevated heavy rail system, but the compromise of street-level light rail, which was never really considered previously, is very appealing now.

With a careful analysis we can explore the big issues, such as: Should there be a dedicated right of way in which the trolley is completely separated from automobiles, or a shared right of way, or some kind of combination? The best result for transit would be an exclusive lane that cars cannot enter, with some exceptions at selected intersections for turning. Probably the only affordable way to build this system is to have most of the transitway at street level, which means the transit vehicles will stop for traffic signals. During rush hour the traffic lights can be synchronized, and can be triggered to turn green by the approaching transit vehicle and automobiles turning into the path of the transit vehicles can be similarly controlled. It also means there would probably be overhead electric wires, but the visual impact can be minimized, and this is one trade-off we might have to make.

Building a completely elevated or underground rapid transit system would be extremely expensive and the public arguments about costs and visual blight would lead right back into the same stalemate we have witnessed for the past two decades. However, it may well be that certain segments of the light rail trolley should be grade-separated at some key intersections, like right here, under Kapiolani at Kalakaua, which is a very busy intersection now and could serve as a transfer hub into Waikiki.

What streets should the transit system run along? An express bus demonstration project could try a variety of routes over a twelve-month period and then analyze the results, before making an irreversible commitment to sink rails into the roadbed. The unfortunate paradox is that the best locations for a trolley are the city streets that are currently the busiest with automobiles, for this is where people want to go. Removing the automobile from selected lanes would not be as traumatic as it might seem, for our busiest streets already have local bus service that is claiming much of the capacity of the curb lane. The pay-off would be much higher capacity for mass transit that will move more riders along much faster, for one lane of rapid transit can carry many more people than several lanes devoted to automobiles.

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Modifications would have to be made to prepare the streets, including barricading the transit lanes to keep the cars out. Selective street widening at certain transit stops would help enhance traffic flow.

For the program to succeed it would need adequate parking lots in the outskirts, such as at Waikele and Aloha Stadium, and there should be efficient feeder and circulator buses available to bring passengers to and from the main line.

Now is a good time to consider rail, for we are not yet firmly committed to a particular plan. We have an activist mayor and the transportation departments of both city and state who are all eager to work together on implementing some solutions. The large numbers of skilled traffic planners and highway workers we already have on the government payroll can tackle the myriad technical details involved in creating this system.

Questions for the EIS to answer, and statements to respond to:

Where is the BRT being used elsewhere?
What problems does the system in Trieste have? What is the population of Trieste? How does this being a European system make the results less applicable here?

Can you put light rail back into the analysis as a viable alternative to be considered, and adopted?

If we are going to take away two lanes of traffic from existing roads in town for transit, don't we have a social obligation to make sure that we get the highest possible use of those lanes for moving people? Is it not possible that LRT ridership would grow after 2025? Why is your time frame only 2025? How long would the system last?

Comfort of ride is not addressed at all in the EIS. Please respond to the following statements:

Buses do not have the comfort level that rail can provide, and would thus probably not attract as many riders as a new rail system. Rail would offer a smoother faster ride, and the vehicle would be much larger with many more seats. There can be no question that rubber-tire buses would provide a less-comfortable ride than rail. The road surface will never be smooth, and the soft suspension therefore required of buses guarantees a bouncy ride that sways back and forth. Rail on the other hand will be perfectly flat and smooth, and the vehicle will not bounce at all. This is no trivial matter, for the greater comfort level will attract many marginal potential riders. And with the greater passenger capacity there is a good chance everyone can find a seat. For all these reasons we can expect that rail ridership will turn out to be higher than bus.

Another factor not considered in the EIS is reliability. Please respond to the following statements: Light rail is a proven off-the-shelf technology that has been in use for a century all around the world, and has been continually updated and improved. On the other hand the proposed BRT is "vaporware" that does not even exist in standard commercial operation yet.

As far as cost, the city's own study shows that rail is not more expensive than BRT, and if you can get higher ridership with rail, would it actually be less expensive than BRT? At what point would this happen?

Please respond to the following statements: It may well be that certain segments of the light rail trolley should be grade-separated at some key intersections, like under Kapiolani at Kalakaua, which is a very busy intersection now and could serve as a transfer hub into Waikiki.

Indeed the superiority of rail can be demonstrated by the city's own study, as shown in these excerpts from the draft EIS:

"LRT technology could be configured to provide far greater peak line capacity through the use of multi-vehicle trains....Higher-capacity vehicles and the ability to form trains would give LRT systems a potential operating labor advantage over BRT systems because one vehicle operator could be

responsible for far more passengers. If in the future (beyond 2025) the additional capacity needed is so large as to require multiple units, this capability can be achieved by entraining LRT vehicles, whereas BRT vehicles cannot be entrained.

Ridership Difference Because the standard LRT vehicles can carry 30 to 40 percent more passengers per vehicle than articulated electric buses, and can be entrained, fewer vehicles are needed to serve the same level of ridership. While positive from an operating cost standpoint, it results in less frequent service being needed with LRT vs. BRT systems. The service frequency difference resulted in approximately 20 percent fewer riders projected to use the LRT vs. BRT system. Ridership would be different on an LRT vs. BRT system because of the difference in the frequency of service. Because of larger size of standard LRT vehicles, the headways on an LRT system would be longer to serve the same number of passengers. Because of the less frequent service on an LRT system, some passengers would find an LRT system less attractive than a BRT system with shorter headways. Therefore, ridership projections for the BRT option were forecast to be almost 20 percent greater than on the LRT alternative because of the more frequent service.

COSTS: [approx $100 million more for tracks, but local share of that is just $30 million] Mitigating this cost differential, however, is the useful life of the transit vehicles. Potential BRT vehicles span a range, but generally require replacement at the standard replacement interval for buses of 12 to 15 years. In contrast, LRT vehicles would require replacement at the standard LRT interval of 25 to 30 years. The longer useful life of the LRT vehicles would over time offset the greater initial cost for LRT vehicles. Capital costs for the In-Town BRT system would be 35 percent less than with an LRT system on the same alignment. This cost difference even reflects the need to replace buses on a 12 year replacement cycle while LRT vehicles have a 30 year useful life. The added cost for the LRT option reflects the high costs of trackwork, yards and shops. Vehicle costs would actually be somewhat less for the LRT option when the less frequent replacement cycle and smaller fleet requirements are taken into account. Annual systemwide transit operating and maintenance costs were also estimated for each alternative for the forecast year 2025. Operating and maintenance costs would be essentially the same for the LRT and BRT options. The cost per new rider gained with the LRT would be 2.8 times as costly as with the BRT.

[regarding noise] No significant differences would exist between the two technologies. An advantage at stations would exist if vehicles operating in the exclusive section of the system were guided. [LRT is guided, BRT is not]

Dennis Callan is president of the Hawaii Geographic Society, and among many past community involvements, was the chairman of the Oahu Metropolitan Planning Organization Citizen Advisory Committee on transportation.

DEPARTMENT OF TRANSPORTATION SERVICES

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TPD02-00541

November 13, 2002

Mr. Dennis Callan
1011 Prospect Street, Apt. 702
Honolulu, Hawaii 96822

Dear Mr. Callan:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). We are responding to your October 5, 2000 letter, your October 5 and 12, 2000 oral testimonies at the Special Transportation Committee Meetings, and your oral testimony at the October 12, 2000 formal public hearing regarding the MIS/DEIS.

1. *The City has developed a proposal, but it is rather inconclusive when it comes to the crucial question of type of vehicle for the main line. They seem to be suggesting an experimental electric bus that is only in trial use one place in the world.*

   Response: Technologies proposed for the BRT Alternative include embedded plate technology (EPT), consisting of electric vehicles powered by a wayside traction power delivery system, or hybrid-electric propulsion system where energy for traction power is carried on-board the vehicle. EPT vehicles would emit zero emissions. Hybrid-electric vehicles would be low-emission vehicles because their diesel engines would always be operating at efficient levels.

   The implementation plan outlined in the FEIS calls for an initial installation of hybrid-electric buses on the In-Town BRT. In 2008 a decision will be made on the long-term technology for the In-town BRT. If service proven by then, the plan calls for selection of EPT.

2. *We have reached the point where we probably do need a light rail trolley system to help the leeward commuters.*

   Response: A Light Rail Transit (LRT) technology was considered but was dropped because of the relatively high costs associated with trackwork and utility relocation. It was determined that LRT performance could be achieved with electric bus technology at a substantially reduced cost.

   The two candidate technologies being considered for the BRT Alternative are an embedded plate system and a hybrid propulsion system.

   The BRT Alternative includes a regional BRT System that includes an H-1 BRT Corridor consisting of new express and zipper lanes, allowing express buses from Ewa and Central Oahu to bypass peak period traffic congestion on their way to downtown.

3. *Buses do not have the comfort level, carrying capacity or speed that rail can provide, and would thus probably not attract as many riders as a new rail system. Rail would offer a smoother faster ride, and the vehicle would be much larger with many more seats.*

   Responses: Newer low-floor articulated buses do provide appropriate comfort levels and convenient egress similar to rail transit. The BRT can be designed to increase potential capacity by implementing well-planned stops, efficient dwell times, restricted right-of-ways, and streamlined fare collection. Traffic signal pre-emption can further alleviate congestion.

   While comfort of ride is a factor in considering which mode to use, experience has shown that other factors such as convenience (proximity to origin and destination of the trip), overall travel time, reliability, and cost are more important. The BRT can be competitive with rail on each of these factors at a lower cost to construct.

4. *If we are going to take away two lanes of traffic, we should utilize those lanes with the highest passenger capacity possible. This means light rail. It is a reliable off-the-shelf technology that has been in use for a century, and has been continually updated and improved.*

   Response: The two candidate technologies, the Embedded Plate System and the Hybrid Propulsion System are still in the process of being fully developed. However, as indicated in Chapter 2 of the MIS/DEIS selected technologies must have the capacity to move more than 3,000 passengers per hour per direction because travel demand forecasting indicates that this is the approximate line haul requirement in 2025. It is assumed that the Embedded Plate System and the Hybrid Propulsion System will have transit vehicles that can accommodate 100 persons per vehicles. This is the same capacity as a 60-foot articulated bus.

   A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system because of its high cost and its physical and visual impacts as discussed in Chapter 2.6.1 of the MIS/DEIS.

5. *There can be no question that rubber-tire buses would provide a less-comfortable ride than rail. The road surface will never be smooth, and the soft suspension therefore required of buses guarantees a bouncy ride that always sways back and forth.*

   Response: Newer low-floor buses with newer suspension systems are more comfortable than older traditional buses. The In-Town BRT will include newly designed roadbeds. In addition, interiors of newly designed buses are quieter and the temperature is better controlled than in older buses. Buses are typically designed to last only twelve years, and can be replaced with better technology sooner. Rail vehicles are typically designed to last 30 years and reflect wear (noise and worn suspension) in their mid-life. It is usually less costly to replace buses than it is to rehabilitate rail cars. Hence, comfort aspects of the ride are primarily dependent on the condition of equipment, rather than type of equipment. Rails also require frequent maintenance to maintain a smooth ride, similar to roads.

6. *Rail on the other hand will be perfectly flat and smooth, and the vehicle will not bounce at all. This is no trivial matter, for the greater comfort level will attract many marginal potential riders. For all these reasons we can expect that rail ridership will turn out to be higher than bus.*

   Response: New equipment with a new suspension system will provide a smooth ride regardless of the mode. Certainly, a new rail system will provide a smoother ride than an old road. However, the rails must be rigorously maintained to retain the smooth ride. While comfort of ride is a factor

in considering which mode to use, experience has shown that other factors such as convenience (proximity to origin and destination of the trip), overall travel time, reliability, and cost are more important. The BRT can be competitive with rail on each of these factors at a lower cost to construct.

7. *I am still against the idea of an elevated heavy rail system, but the compromise of street-level light rail, which was never really considered previously, is very appealing now.*

   Response: Light rail transit was evaluated during the early stages of the MIS/DEIS process and was dropped as an alternative when it was concluded that the BRT Alternative offered almost all of the benefits of light rail at a much lower cost. Additionally the BRT offers the flexibility to let other buses share the BRT lanes to maximize the investment in fixed facilities. Also, since BRT vehicles would not be wedded to tracks, they could alter their routing during parades, utility repair work, or other blockages that light rail vehicles cannot.

8. *Should there be a dedicated right-of-way in which the trolley is completely seperated from automobiles, or a shared right-of-way, or some kind of combination? The best result for transit would be an exclusive lane that cars cannot enter, with some exceptions at selected intersections for turning.*

   Response: Along its length the proposed BRT employs a combination of lane configurations tailored to the specific conditions in each area traversed. Along some sections, lanes will be for the exclusive use of BRT vehicles (e.g. Dillingham Boulevard, Hotel Street and sections of King Street, Pensacola, Kapiolani Boulevard, and University Avenue. In other sections lanes will be shared with only right-turning vehicles (e.g. sections of King, Pohukaina, South, and Auahi Streets); elsewhere lanes will be shared with private buses (e.g. Ala Moana Boulevard, Kalia Road, Saratoga Road, and Kalakaua and Kuhio Avenues), and places where the BRT will operate in mixed traffic (e.g. sections of Bishop, Alakea, Aloha Tower Drive, Ala Moana Boulevard, Forrest Avenue, Ilalo Street, and Kapiolani Boulevard).

9. *Probably the only affordable way to build this system is to have most of the transitway at street level, which means the transit vehicles will stop for traffic signals. During rush hour the traffic lights can be synchronized, and can be triggered to turn green by the approaching transit vehicle and automobiles turning into the path of the transit vehicles can be similarly controlled.*

   Response: The BRT Alternative consists of transit vehicles operating at street level. Traffic signals will be synchronized and programmed to provide priority to the transit lanes.

10. *It also means there would probably be overhead electric wires, but the visual impact can be minimized, and this is one trade-off we might have to make.*

    Response: Overhead wires were strongly opposed by attendees of early round public meetings. Accordingly, technologies dependent on overhead traction power wires were eliminated.

11. *Building a completely elevated or underground rapid transit system would be extremely expensive and the public arguments about costs and visual blight would lead right back into the same stalemate we have witnessed for the past two decades. However, it may well be that certain segments of the light rail trolley should be grade-separated at some key intersections, like right here, under Kapiolani at Kalakaua, which is a very busy intersection now and could serve as a transfer hub into Waikiki. In the downtown core, the system could be grade-separated, with the*

trolley running under Hotel Street and interfacing with street-level buses that would be circulators to disperse commuters to their workplaces. This would create a dynamic transit hub that would stimulate our central business district.

Response: For cost and aesthetic reasons the In-Town BRT is proposed to be entirely at-grade. Bottleneck locations such as the Kapiolani/ Kalakaua intersection may require grade-separation in the future with or without the BRT to reduce general traffic delays. If grade-separation occurs, BRT riders would benefit along with other users of the intersection.

12. *What streets should the transit system run along? An express bus demonstration project could try a variety of routes over a twelve-month period and then analyze the results, before making an irreversible commitment to sink rails into the roadbed.*

Response: The proposed BRT system is based on ridership experience of the City's existing bus services, including the recently implemented express bus services that use much of the proposed BRT alignment, forecasts of BRT and local bus ridership using regional travel forecasting models, and input received at hundreds of public outreach meetings. A test without all features of the BRT system in place (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-floor vehicles with level boarding through multiple doors) would be misleading and not a true test of the system. For example, the project proposes to completely reconstruct Dillingham Boulevard through the Kalihi area to provide significant pedestrian amenities to facilitate access to BRT stations, as well as building new BRT stations and exclusive lanes in the center of the roadway. Without such major reconstruction, it would not be possible to provide the substantial time savings for transit riders through this corridor that would be offered by the BRT. Most importantly, potential new riders would not likely perceive the demonstration service as permanent and would not be induced to change their travel mode.

13. *The unfortunate paradox is that the best locations for a trolley are the city streets that are currently the busiest with automobiles, for this is where people want to go. Removing the automobile from selected lanes would not be as traumatic as it might seem, for our busiest streets already have local bus service that is claiming much of the capacity of the curb lane. The payoff would be much higher capacity for mass transit that will move more riders along much faster, for one lane of rapid transit can carry many more people than several lanes devoted to automobiles.*

Response: Comment noted. The DTS agrees with this statement.

14. *In the urban center we have three main streets between downtown and the University - - Kapiolani, King and Beretania. We could test Kapiolani with "rapid transit" buses in a two-lane system for six months, perhaps with help from parallel streets like Kona and Waimanu. Then try King or Beretania, either with a two-way system on one of them, or separate one-way lines on each. West of downtown we have major opportunities along Dillingham, North King, and Nimitz that can be tried. Preliminary discussion of street selection could be included in future neighborhood meetings that should be held on this issue.*

Response: The proposed BRT system is based on ridership experience of the City's existing bus services, including the recently implemented express bus services that use much of the proposed BRT alignment, forecasts of BRT and local bus ridership using regional travel forecasting models, and input received at hundreds of public outreach meetings. A test without all features of the BRT system in place (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-floor vehicles with level boarding through multiple doors) would be misleading and not a true test of the system. For example, the project proposes to completely reconstruct Dillingham Boulevard

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15. *Modifications would have to be made to prepare the streets, including barricading the transit lanes to keep the cars out. Selective street widening at certain transit stops would help enhance traffic flow.*

Response: There are no plans to provide a physical barrier to separate the BRT lanes from adjacent lanes. The BRT lanes will be clearly delineated and signed. Since large, specially marked BRT vehicles will be utilizing these lanes it will be obvious which vehicles are violators and therefore it will not take much law enforcement manpower to monitor and enforce the lane designation. There will be an enforcement mechanism developed to discourage private vehicles from entering BRT-exclusive lanes. These enforcement mechanisms may be in the form of a fine for entering a BRT-exclusive lane, similar to the fines imposed on the existing HOV lanes.

16. *For the program to succeed it would need adequate parking lots in the outskirts, such as at Waikele and Aloha Stadium, and there should be efficient feeder and circulator buses available to bring passengers to and from the main line.*

Response: There is a transit center/park-and-ride facility proposed for Aloha Stadium that will provide a transfer point for circulator buses from the neighborhoods to the transit center.

17. *Now is a good time to consider rail, for we are not yet firmly committed to a particular plan.*

Response: The proposed BRT will be able to provide most of the benefits of light rail transit at a much lower cost and with greater operating flexibility.

18. *But, I agree with the general concepts of the plan and yet I have one very large disagreement and that regards the type of vehicle in the primary urban core. I really think it should be light rail.*

Response: See response to comment #17.

19. *I've ridden rail systems in 30 cities around the country and around the world and I've seen them work. And I've seen what kinds of hardware are available now. What kinds of hardware have been in existence for a century– light rail, trolleys – and have been continually improved and updated.*

Response: The BRT is based on the most ubiquitous technology around the world -- the bus. It has been continually improved and updated with BRT being the most recent application of this proven technology. The key BRT features being proposed in Honolulu have been tested and proven in cities throughout the world including in Curitiba and Sao Paolo, Brazil; Brisbane and Adelaide, Australia; Auckland, New Zealand; Vancouver and Ottawa, Canada; Dublin, Ireland; Nagoya, Japan; and New York City, Los Angeles, Pittsburgh, and Orlando in the U.S.

20. *This is off-the-shelf technology that's getting better with time and is enjoying, in fact, a renaissance around the world. Rather than an untested Triasta electric bus that may or may not work, the light rail has many advantages. It has much greater capacity, and in particular, it*

provides a more comfortable ride. There's no comparison between riding on rail or riding on asphalt road. The road is going to be bumpy. The vehicles are going to have to have a suspension to deal with the bumps and they're not going to be as comfortable as rail.

Response: Conventional light rail requires overhead traction power wires that were ruled out as unacceptable by the public at the early stages of the Primary Corridor Transportation Project. Light rail using embedded plate traction power was considered an option, but it as with buses using this new technology has not yet been service proven. The asserted advantages of light rail even if they existed, namely greater passenger capacity per vehicle and comfort of ride would not be sufficient to offset light rail's much higher cost and reduced operating flexibility. See responses to comments #28 and #30 with regard to differences in capacity and comfort of ride.

21. *Twenty-four years ago I got very much involved in fighting against the grade-seperated HART proposal and I'm still against grade-separated system.*

    Response: The proposed system is not grade-separated.

22. *However, there may be a few opportunities at intersections for grade separation. This happens in many, many systems. Going under. Ducking under. Right here, at Kapiolani and Kalakaua, for example. An underground transfer station to connect to a shuttle into Waikiki. We don't need rail in Waikiki. We need rail on the main route to bring the commuters to work.*

    Response: Grade-separation at various intersections was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system because of its physical and visual impacts.

23. *As long as we're going to take lanes away at surface, we have to make the most use of those lanes in terms of capacity. And light rail has much greater capacity than _____ electric bus. There's no question about that.*

    Response: See response to comment #20.

24. *In fact, I advocated that in public testimony and essays that a fast period with express buses, existing buses on the routing would be excellent.*

    Response: The proposed BRT system is based on ridership experience of the City's existing bus services, including the recently implemented express bus services that use much of the proposed BRT alignment, forecasts of BRT and local bus ridership using regional travel forecasting models, and input received at hundreds of public outreach meetings. A test without all features of the BRT system in place (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-floor vehicles with level boarding through multiple doors) would be misleading and not a true test of the system. For example, the project proposes to completely reconstruct Dillingham Boulevard through the Kalihi area to provide significant pedestrian amenities to facilitate access to BRT stations, as well as building new BRT stations and exclusive lanes in the center of the roadway. Without such major reconstruction, it would not be possible to provide the substantial time savings for transit riders through this corridor that would be offered by the BRT. Most importantly, potential new riders would not likely perceive the demonstration service as permanent and would not be induced to change their travel mode.

25. *But, it seems to me from the proposals here there's no light rail mentioned as one of the proposals being considered. And I think that it should be put back into the list for active consideration.*

    Response: See response to comment #20.

26. *I do agree with the general concepts that are being suggested for us as the best solution, including exclusive use of selected lanes in town for rapid transit. However I do have one major disagreement with their proposal, and that concerns the type of vehicle for the high capacity in-town line between Middle Street and the University. The city is suggesting an experimental electric bus that is only in trial use one place in the world.*

    Response: See responses to comments #7 and #20.

27. *We should instead have a light rail system, similar to that found now in hundreds of cities around the world. Light rail should be put back into the analysis as a viable alternative to be considered, and adopted.*

    Response: See response to comment #7.

28. *The City's own Draft EIS admits that light rail would carry more passengers than the BRT. The only significant reason the city raises in the EIS for rejected light rail is that it would carry too many passengers! This backwards logic is right out of Alice in Wonderland. This shows the City is not looking to create a system of maximum efficiency, and I feel this is a big mistake.*

    Response: The reasons for rejecting the LRT were its high cost and lack of operating flexibility compared to the BRT. The MIS/DEIS indicated that light rail vehicles would provide excess capacity during much of the day, and even during peak periods could not take advantage of one of the strengths of light rail which is the ability to couple cars to form trains since this would lead to headways (interval between vehicles) being much greater than with BRT. This would mean a longer wait time for riders.

29. *If we are going to take away two lanes of traffic from existing roads in town for transit, we have a social obligation to make sure that we get the highest possible use of those lanes for moving people. That solution is light rail. If we are going to take away two lanes of traffic, we should utilize those lanes with the highest passenger capacity possible.*

    Response: With BRT buses there is the flexibility to operate in some segments in exclusive lanes; in other sections these lanes could be shared with private buses. In some cases the BRT will operate in mixed traffic in general purpose lanes. This flexibility to operate effectively in different conditions to be responsive to real world constraints has been crucial in achieving public acceptance for the project. Light rail lacks the flexibility to adapt to the nuances encountered along the alignment.

30. *Along with higher carrying capacity, there is another major factor why I support rail, and that is comfort for the passenger. This is not addressed at all in the EIS.*

    Response: There would be no significant level of comfort difference between a well-designed BRT vehicle operating along a concrete roadway at the speeds proposed for the In-Town system when compared with a light rail vehicle.

31. *Buses do not have the comfort level that rail can provide, and would thus probably not attract as many riders as a new rail system. Rail would offer a smoother faster ride, and the vehicle would be much larger with many more seats. There can be no question that rubber-tire buses would provide a less-comfortable ride than rail. The road surface will never be smooth, and the soft suspension therefore required of buses guarantees a bouncy ride that sways back and forth.*

    Response: The comfort of the ride is dependent upon frequent maintenance of the roads or rails and replacement of suspension systems at appropriate intervals recommended by the vehicle manufacturer.

    Newer low floor articulated buses do provide appropriate comfort levels and convenient egress similar to rail transit. The BRT can be designed to increase potential capacity by implementing well-planned stops, efficient dwell times, restricted right-of-ways, and stream-lined fare collection. Traffic signal pre-emption can further alleviate congestion.

    While comfort of ride is a factor in considering which mode to use, experience has shown that other factors such as convenience (proximity to origin and destination of the trip), overall travel time, reliability, and cost are more important. The BRT can be competitive with rail on each of these factors at a lower cost to construct.

32. *Rail on the other hand will be perfectly flat and smooth, and the vehicle will not bounce at all. This is no trivial matter, for the greater comfort level will attract many marginal potential riders. And with the greater passenger capacity there is a good chance everyone can find a seat. For all these reasons we can expect that rail ridership will turn out to be higher than bus.*

    Response: Newer low-floor buses with newer suspension systems are more comfortable than the older traditional buses. In addition, the interior of newly designed buses is quieter and the temperature is better controlled than older buses. Buses are typically designed to last only twelve years, and can be replaced with better technology sooner. Rail vehicles are typically designed to last 30 years and reflect wear (noise and worn suspension) in their mid-life. It is usually less costly to replace buses that it is to rehab rail cars. Hence, the comfort aspects of the ride are primarily dependent on the condition of the equipment, rather than the type of equipment. Rails also require frequent maintenance to maintain a smooth ride, similar to roads.

33. *Another factor not considered in the EIS is reliability. Light rail is a proven off-the-shelf technology that has been in use for a century all around the world, and has been continually updated and improved. On the other hand the proposed BRT is "vaporware" that does not even exist in standard commercial operation yet.*

    Response: See response to comment #20.

34. *As far as cost, the city's own study shows that rail is not more expensive than BRT, and if you can get higher ridership with rail, it should actually be less expensive than BRT.*

    Response: It is unclear what City study is being referred to in this comment. As stated in the MIS/DEIS Chapter 2, the trackwork for the LRT system is estimated to cost substantially more than the BRT transitway. The cost differential would be $94-$142 million more for a 11.8 mile distance. In general, the LRT vehicle could be as much as $2 million per vehicle and the estimated vehicle life is approximately twice that of an electric BRT vehicle. The estimated cost of an electric BRT vehicle is approximately $1.4 million with a vehicle life of 12-15 years. When combining the BRT transitway cost and BRT vehicle cost including replacement vehicles, the BRT

annualized capital cost would be less than the annualized cost of an LRT system. Additionally the LRT O&M cost would be slightly higher than the BRT. Also, the LRT was not forecast to attract any more riders than the BRT.

35. *I am still against the idea of an elevated heavy rail system, but the compromise of street-level light rail, which was never really considered previously, is very appealing now.*

    Response: A Light Rail Transit (LRT) technology was considered but was dropped because of the relatively high costs associated with trackwork and utility relocation. It was determined that LRT performance could be achieved with electric bus technology at a substantially reduced cost.

36. *Should there be a dedicated right-of-way in which the trolley is completely separated from automobiles, or a shared right-of-way, or some kind of combination? The best result for transit would be an exclusive lane that cars cannot enter, with some exceptions at selected intersections for turning.*

    Response: The In-Town BRT component is comprised of a mix of exclusive BRT, semi-exclusive BRT and mixed-use lanes. The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly affected, exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes, exclusive transit lanes were retained such as on Dillingham and through Downtown.

37. *Probably the only affordable way to build this system is to have most of the transitway at street level, which means the transit vehicles will stop for traffic signals. During rush hour the traffic lights can be synchronized, and can be triggered to turn green by the approaching transit vehicle and automobiles turning into the path of the transit vehicles can be similarly controlled.*

    Response: The BRT Alternative consists of transit vehicles operating at street level. At certain intersections, BRT vehicles approaching a green signal will activate a ten second extension of the green indication for that cycle only. BRT vehicles stopped at a red signal will move concurrently with the through traffic in the same direction, unless the BRT vehicle must turn or change lanes, in which case it will be given a five second green signal in advance of the general purpose traffic lanes. All traffic signal extensions and advance indications will be timed in the field during actual operation to minimize adverse effects on general traffic flow.

38. *It also means there would probably be overhead electric wires, but the visual impact can be minimized, and this is one trade-off we might have to make.*

    Response: See response to comment #20, first paragraph.

39. *Building a completely elevated or underground rapid transit system would be extremely expensive and the public arguments about costs and visual blight would lead right back into the same stalemate we have witnessed for the past two decades. However, it may well be that certain segments of the light rail trolley should be grade-seperated at some key intersections, like right here, under Kapiolani at Kalakaua, which is a very busy intersection now and could serve as a transfer hub into Waikiki.*

    Response: See response to comment #11.

40. *What streets should the transit system run along? An express bus demonstration project could try a variety of routes over a twelve-month period and then analyze the results, before making an irreversible commitment to sink rails into the roadbed.*

    Response: The proposed BRT alignment is based on ridership experience of the existing city bus system including recently implemented express bus services that traverse much of the proposed BRT alignment, forecasts of usage using regional travel forecasting models, and input received at hundreds of public outreach meetings and meetings with other public agencies. A demonstration project without all of the features of the BRT system (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-flow buses with level boarding through multiple doors) would not be a true test of what is being proposed.

41. *The unfortunate paradox is that the best locations for a trolley are the city streets that are currently the busiest with automobiles, for this is where people went to go. Removing the automobile from selected lanes would not be as traumatic as it might seem, for our busiest streets already have local bus service that is claiming much of the capacity of the curb lane. The pay-off would be much higher capacity for mass transit that will move more riders along much faster, for one lane of rapid transit can carry many more people than several lanes devoted to automobiles.*

    Response: Increasing the people-carrying capacity of the existing roadway system is one of the primary objectives of this project.

42. *In the urban center we have three main streets between downtown and the University - - Kapiolani, King and Beretania. We could test Kapiolani with "rapid transit" buses in a two-lane system for six months, perhaps with help from parallel streets like Kona and Waimanu. Then try King or Beretania, either with a two-way system on one of them, or separate one-way lines on each. West of downtown we have major opportunities along Dillingham, North King, and Nimitz that can be tried. Preliminary discussion of street selection could be included in future neighborhood meetings that should be held on this issue.*

    Response: The proposed BRT system is based on ridership experience of the City's existing bus services, including the recently implemented express bus services that use much of the proposed BRT alignment, forecasts of BRT and local bus ridership using regional travel forecasting models, and input received at hundreds of public outreach meetings. A test without all features of the BRT system in place (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-floor vehicles with level boarding through multiple doors) would be misleading and not a true test of the system. For example, the project proposes to completely reconstruct Dillingham Boulevard through the Kalihi area to provide significant pedestrian amenities to facilitate access to BRT stations, as well as building new BRT stations and exclusive lanes in the center of the roadway. Without such major reconstruction, it would not be possible to provide the substantial time savings for transit riders through this corridor that would be offered by the BRT. Most importantly, potential new riders would not likely perceive the demonstration service as permanent.

43. *Modifications would have to be made to prepare the streets, including barricading the transit lanes to keep the cars out. Selective street widening at certain transit stops would help enhance traffic flow.*

    Response: Dedicated BRT lanes will be identified by colored pavement, but otherwise will look the same as the rest of the street. There will be some enforcement mechanism developed to

discourage private vehicles from entering BRT-exclusive lanes. These enforcement mechanisms may be in the form of fines for entering BRT-exclusive lanes, similar to the fines imposed on the existing HOV lanes.

Streets will be widened at certain locations to accommodate transit stops and traffic flow.

44. *For the program to succeed it would need adequate parking lots in the outskirts, such as at Waikele and Aloha Stadium, and there should be efficient feeder and circulator buses available to bring passengers to and from the main line.*

    Response: There is a transit center/park-and-ride facility proposed for Aloha Stadium that will provide a transfer point for circulator buses from the neighborhoods to the transit center.

45. *Now is a good time to consider rail, for we are not yet firmly committed to a particular plan.*

    Response: The City Council selected BRT as the Locally Preferred Alternative in November 2000.

46. *Where is the BRT being used elsewhere?*

    Response: See response to comment #19.

    The BRT is based on the most ubiquitous technology around the world,-the bus. It has been continually improved and updated with BRT being the most recent application of this proven technology. The key BRT features being proposed in Honolulu have been tested and proven in cities throughout the world including Curitiba and Sao Paolo, Brazil; Brisbane and Adelaide, Australia; Auckland, New Zealand; Vancouver and Ottawa, Canada; Dublin Ireland; and Nagoya, Japan; as well as New York City, Los Angeles, Pittsburgh, and Orlando in the U.S.

47. *What problems does the system in Trieste have? What is the population of Trieste? How does this being a European system make the results less applicable here?*

    Response: Progress in implementing the STREAM (touchable embedded-plate) system in Trieste, Italy was delayed due to the need to re-design the pre-cast concrete channels and metal cover plates that house the cables that supply power to the embedded-plate modules. After the initial installation was completed in mid-1999, it was found that the U-shaped channels were undersized and the cover plates were not sturdy enough to support the weight of trucks and other heavy vehicles that travel across or in the same lane as the STREAM buses. The initial installation was removed and larger, stronger channels and cover plates were placed in the roadway to support the embedded-plate modules. The re-installation was completed in Fall 2001 and the system has been undergoing certification testing since July 2001. The population of Trieste is approximately 223,000. The STREAM technology will have to undergo additional safety certification in the U.S.

48. *Can you put light rail back into the analysis as a viable alternative to be considered, and adopted?*

    Response: See response to comment #45.

49. *If we are going to take away two lanes of traffic from existing roads in town for transit, don't we have a social obligation to make sure that we get the highest possible use of those lanes for moving people?*

Response: See response to comment #29.

50. *Is it not possible that LRT ridership would grow after 2025? Why is your time frame only 2025? How long would the system last?*

Response: If you are asking whether the BRT ridership would grow after 2025, it is anticipated to do so. However, it is extremely difficult to plan beyond a 25-year time frame, thus the year 2025 is used as a basis of comparison. Because the BRT uses buses as its vehicle technology, it has the flexibility to accommodate expansion by adding more buses to the fleet. The various system components have different useful lives before they need to be replaced. The BRT vehicles will need to be replaced every 12 to 15 years, whereas some of the fixed facility components with proper maintenance can last 50 years or more.

51. *Comfort of ride is not addressed at all in the EIS. Please respond to the following statements: Buses do not have the comfort level that rail can provide, and would thus probably not attract as many riders as a new rail system. Rail would offer a smoother, faster ride, and the vehicle would be much larger with many more seats. There can be no question that rubber-tire buses would provide a less-comfortable ride than rail. The road surface will never be smooth, and the soft suspension therefore required of buses guarantees a bouncy ride that sways back and forth. Rail on the other hand will be perfectly flat and smooth, and the vehicle will not bounce at all. This is no trivial matter, for the greater comfort level will attract many marginal potential riders. And with the greater passenger capacity there is a good chance everyone can find a seat. For all these reasons we can expect that rail ridership will turn out to be higher than bus.*

Response: Newer low-floor buses with newer suspension systems are more comfortable than the older traditional buses. In addition, the interior of newly designed buses is quieter and the temperature better controlled than in older buses. Buses are typically designed to last only twelve years, and can be replaced with better technology sooner. Rail vehicles are typically designed to last 30 years and reflect wear (noise and worn suspension) in their mid-life. It is usually less costly to replace buses that it is to rehabilitate rail cars. Hence, comfort aspects of the ride are primarily dependent on the condition of the equipment, rather than the type of equipment. Rails also require frequent maintenance to maintain a smooth ride, similar to roads.

While comfort of ride is a factor in considering which mode to use, experience has shown that other factors such as convenience (proximity to origin and destination of the trip), overall travel time, reliability, and cost are more important. The BRT can be competitive with rail on each of these factors at a lower cost to construct.

52. *Another factor not considered in the EIS is reliability. Light rail is a proven off-the-shelf technology that has been in use for a century all around the world, and has been continuelly updated and improved. On the other hand the proposed BRT is "vaporware" that does not even exist in standard commercial operation yet.*

Response: See response to comment #20.

53. *As far as cost, the city's own study shows that rail is not more expensive than BRT, and if you can get higher ridership with rail, would it actually be less expensive than BRT? At what point would this happen?*

Response: It is unclear what City study is being referred to in this comment. As stated in the MIS/DEIS Chapter 2, the trackwork for the LRT system is estimated to cost substantially more than the BRT transit way. The cost differential would be $94-$142 million more for a 11.8 mile distance. In general, the LRT vehicle could be as much as $2 million per vehicle and the estimated vehicle life is approximately twice that of an electric vehicle. The estimated cost of an electric vehicle is approximately $1.4 million with a vehicle life of 12-14 years. When combining the BRT transitway cost and BRT vehicle cost including replacement vehicles, the BRT system cost is less than the cost of an LRT system.

54. *Please respond to the following statements: It may well be that certain segments of the light rail trolley should be grade-separated at some key intersections, like under Kapiolani at Kalakaua, which is a very busy intersection now and could serve as a transfer hub into Waikiki.*

Response: See response to comment #11.

55. *Indeed the superiority of rail can be demonstrated by the city's own study, as shown in these excerpts from the draft EIS: "LRT technology could be configured to provide far greater peak line capacity through the use of multi-vehicle trains...Higher-capacity vehicles and the ability to form trains would give LRT systems a potential operating labor advantage over BRT systems because one vehicle operator could be responsible for more passengers. If the future (beyond 2025) the additional capacity needed is so large as to require multiple units, this capability can be achieved by entraining LRT vehicles, whereas BRT vehicles cannot be entrained.*

Response: See response to comment #28.

56. *Ridership Difference because the standard LRT vehicles can carry 30 to 40 percent more passengers per vehicle than articulated electric buses, and can be entrained, fewer vehicles are needed to serve the same level of ridership. While positive from an operating cost standpoint, it results in less frequent service being needed with LRT vs. BRT systems. The service frequency difference resulted approximately 20 percent fewer riders projected to use the LRT vs. BRT system. Ridership would be different on an LRT vs. BRT system because of the differences in the frequency of service.*

Response: Comment noted. The comment agrees with statements in Chapter 2 of the MIS/DEIS.

57. *[approx $100 million more for trecks, but local share of that is just $30 million] Mitigating this cost differential, however, is the useful life of the transit vehicles. Potential BRT vehicles span a range, but generally require replacement at the standard replacement interval for buses of 12 to 15 years.*

Response: This statement is not correct. See response to comment #53. Also the local FTA Section 5309 New Starts local match is expected to be 50%.

58. *In contrast, LRT vehicles would require replacement at the standard LRT interval of 25 to 30 years. The longer useful life of the LRT vehicles would over time offset the greater initial cost for LRT vehicles.*

    Response: Comment noted. It is a reiteration from the MIS/DEIS.

59. *Capital costs for the In-Town BRT system would be 35 percent less than with an LRT system on the same alignment. This cost difference even reflects the need to replace buses on a 12-year replacement cycle while LRT vehicles would have a 30-year useful life.*

    Response: The comment is incorrect. The useful life of a BRT vehicle would be 12-15 years. The LRT vehicle useful life would be 25-30 years. The In-Town BRT costs in the MIS/DEIS were $24.5 M /mile including vehicles, but excluding transit centers. The LRT would cost about $ 50M/mile including vehicles. Since the LRT vehicles have a longer useful life the net difference when comparing annualized cost would be about 35%.

60. *The added cost for the LRT option reflects the high costs of treckwork, yards and shops.*

    Response: Comment noted. It is a reiteration from the MIS/DEIS.

61. *Vehicle costs would actually be somewhat less for the LRT option when the less frequent replacement cycle and smaller fleet requirements are taken into account.*

    Response: Comment noted. It is a reiteration from the MIS/DEIS.

62. *Annual systemwide transit operating and maintenance costs were also estimated for each alternative for the forecast year 2025. Operating and maintenance costs would be essentially the same for the LRT and BRT options. The cost per new rider gained with the LRT would be 2.8 times as costly as with the BRT.*

    Response: Comment noted. It is a reiteration from the MIS/DEIS.

63. *No significant differences would exist between the two technologies. An advantage at stations would exist if vehicles operating in the exclusive section of the system were guided. [LRT is guided, BRT is not]*

    Response: Since precision docking is not possible with buses, even optically guided buses, bridge plates (metal plates that extend out from the bus at each door just prior to the doors opening) will be used to provide level boarding at the passenger platforms.

64. *I'm speaking in favor of the rapid transit alternative, but not in favor of the Bus Rapid Transit alternative.*

    Response: Thank you for taking the time to attend the public hearing and expressing your views regarding the project and your preferences.

65. *I really think that you dropped the dime when you let go of the light rail possibilities last year. I know that you did take a good look at it, and you considered the ramifications, and yet, I think you came to the wrong conclusions.*

    Response: Comment noted.

66. *The fundamental issue here is that we do need to take away a line of traffic from the cars on our existing streets.*

    Response: The BRT Alternative is comprised of a mix of exclusive BRT, semi-exclusive BRT and mixed-use lanes. The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly affected, exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes, exclusive transit lanes were retained such as on Dillingham Boulevard and through Downtown.

67. *But if we're going to take away a lane of traffic in each direction, than we have a social obligation to make the most of that lane to get the highest passenger capacity out of that lane. And that's the main factor why I disagree with your choice of vehicles.*

    Response: See response to comment #4.

68. *As you acknowledged in the EIS, the light rail would have a much greater – you don't say how much greater, perhaps it's buried in the details somewhere, but obviously greater capacity that would last us for many years into the future.*

    Response: The MIS/DEIS Chapter 2 stated that the standard LRT vehicles can carry 30 to 40 percent more passengers per vehicle than articulated electric buses.

69. *Perhaps your time horizon is a bit short. The year 2025 is a Federal mandate, I understand. But looking beyond that, light rail would enable us to grow into the future. So capacity is one very big concern that I have.*

    Response: It is extremely difficult to plan beyond a 20 to 25-year time horizon.

70. *And there's two others. One is comfort of ride. And there could be no comparison between light rail and a bus on rubber tires, even if you have cement road bed. I'm sorry. The difference is an extreme difference. The light rail is going to be smoother, flatter, more comfortable, and with greater capacity, more seats, so people can be sitting down, and it will attract more riders.*

    Response: The comfort of the ride is dependent upon frequent maintenance of the roads or rails and replacement of suspension systems at appropriate intervals as recommended by the vehicle manufacturer.

    Newer low-floor articulated buses do provide appropriate comfort levels and convenient egress similar to rail transit. The BRT can be designed to increase potential capacity by implementing well-planned stops, efficient dwell times, restricted right-of-ways, and streamlined fare collection. Traffic signal pre-emption can further alleviate congestion.

    While comfort of ride is a factor in considering which mode to use, experience has shown that other factors such as convenience (proximity to origin and destination of the trip), overall travel time, reliability, and cost are more important. The BRT can be competitive with rail on each of these factors at a lower cost to construct.

71. *The third concern is reliability of the system. All around the world there are many, many light rail systems. I've had the good fortune to be able to ride on 29 different rail rapid transit systems in*

my travels around the world, so I bring you this little perspective that this is a proven technology that's been around for a century, it's constantly being improved, upgraded, modified and enhanced. It's off-the-shelf technology.

The BRT is vaporware. It does not exist. Perhaps, in four years, it might exist, perhaps not. And it will be a prototype. Do we want to be beta testers for an unproven system? Or wouldn't we be better off going with a proven light rail system.

Response: No technology will be implemented before it is service proven. The decision has been made to implement hybrid-electric buses initially for the In-Town BRT while viable long-term technologies are being proven in service elsewhere. Conventional light rail was rejected early on by attendees at the various public meetings since it required overhead wires for traction power.

72. *And a final comment, if you could merely give a response to these statements as part of the EIS process. And put light rail back into consideration.*

Response: See responses to all previous comments (#1-#71).

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

City Council
City and County of Honolulu

RECEIVED
Oct 27 | 21 PM '00
CITY CLERK

I am here to express my opposition to the dedicated lanes in the Primary Corridor Transportation Project DEIS.

Since express bus stops are relatively far apart (1/4 to 1/2 mile), dedicated lanes will not eliminate the need for non-express buses using the remaining undedicated lanes. Also, the stations along the routes will take up a partial lane. Automobiles will be virtually restricted from these routes. Residents and businesses will be inconvenience.

The DEIS doesn't address the current automobile capacity of these routes and the projected reduction in automobile capacity after the dedicated lanes and stations are built and non-express buses are added. Since vehicles will find alternative routes, the DEIS doesn't address the negative impact that diverted traffic has on other main and neighborhood streets. Also, the negative impacts on north/south streets were not considered in the DEIS. The large parking spaces of the proposed Wal-Mart development and expanded Ala Moana Center are negatively impacted but not considered in this transportation DEIS.

The Bus Rapid Transit is not needed, since some Neighborhood Boards see little growth in the Primary Urban Center for the next 25 years. Families want to go out to Central Oahu and Ewa. Businesses will follow.

I support Makiki/Lower Punchbowl/Tantalus Neighborhood Board motions:
1) Against Bus Rapid Transit with dedicated lanes
2) For TSM alternative, Hub-&-Spoke Bus Network without in-town dedicated lanes.

Charles H. Carole
Makiki Resident

Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

11/05/00

Dear Ms. Soon:

SUBJECT: Major Investment Study/ Draft Environmental Impact Statement for Primary Corridor Transportation Project

I consider this DEIS to have major deficiencies in the following items.

1) Foreseeable Increased Congestion and Gridlock: the DEIS doesn't address the current vehicle capacity of the transit routes and the projected reduction in vehicle capacity after the dedicated lanes and stations are built and lanes for non-express buses are added. Since vehicles will find alternative routes, the DEIS doesn't address the negative impact that diverted has on other main and neighborhood streets. Also, the negative impacts on north/south streets were not considered in the DEIS. The use of large amount of parking at the proposed Wal-Mart development and the expanded Ala Moana Center will cause congestion but not considered in this DEIS.
2) RIDERSHIP: the DEIS doesn't give a true picture of the bus ridership situation. Since 1995 the annual ridership has gone down from 80 million to 69 million in 1999, this occurs at the time with increase in number of buses in the system and added routes. On top of this situation, the DEIS is projecting a 74% ridership increase fot 2025 from the 1999 figure. A shortfall in ridership will have negative impact on the fiscal affordability of the transportation system. The adjustment to the 2025 population projection (Table 4.2-8) shows increased non-construction employment, but is the increased employment in Ewa and Central Oahu, not in the in-town area. The DEIS doesn't specified where the growth area will be.
3) PRIMARY URBAN CENTER DEVELOPMENT PLAN(PUCDP): the DEIS should consider the public comments on the 1999 proposed PUCDP which were against higher density and flexible development strandards. A new PUCDP should be approved before considering the drastic change contemplated by the Bus Rapid Transit (BRT) and its dedicated lanes.
4) PROJECT COSTS AND TAXES: the DEIS says that the type of BRT system hasn't been selected yet. How much risk is there in the BRT cost in being much higher? The DEIS makes a point that there will be no new taxes, but I assume that this means no new form of tax. only an increase in existing form of taxes.
5) FLAWED DEIS ASSUMPTIONS: the DEIS doesn't address possibility with higher congestion that businesses would move out to Ewa and Central Oahu to be closer to resident homes, thus reducing the trips to the in-town area of the PUC. Also, with changing work habits over the next 25 years, there will be decentralization of businesses throughout Oahu. It is difficult to plan and build for 2025, when things are chanes. If this plan was done in 1975, our growth would be much smaller than

projected.

6) BEST ALTERNAIVE PREFERENCE: the Transportation System Management alternative, the Hub-and-Spoke Bus Network, should be fully implemented with its highway improvements. The system should be completed and given a reasonable operational period to be evaluated. The DEIS doesn't discuss this option.

Sincerely,

Charles H. Carole

Charles H. Carole
1310 Heulu Street, Apt. 1002
Honolulu, HI 96822

May 5, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

MAY 7 2002

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement
Comments and Concerns

In response to the Primary Corridor Transportation Project Supplemental Draft Environmental Impact Statement (SDEIS) dated March 2002, I wish to raise the following questions and concerns.

PAGE 1-3 PURPOSE

1. Increase the people-carrying capacity of the transportation system system in the primary transportation corridor by providing attractive alternatives to the private automobile.

This project purpose would not only deprive private automobiles from lane spaces, but also commercial automobiles and trucks which will raise business costs and will eventually cause raising vacancy rates for offices and stores in the Primary Urban Center(PUC). Also, Costco is moving into the Iwilei area in June 2002 and most customers will carry their large quantity of purchased-goods in cars, not on public transportation. It will be interested how big box businesses will be affected by restricted traffic lanes. Your SDEIS didn't speak to this economic impacts in Chapter 5-Environmental Analysis and Consequences(pages 5-15 to 5-20), but only spoke about employment of construction and transit workers. The section didn't discuss the economic effects on area businesses like automobile dealers, supply dealers and others.

2. Support desired development patterns.

The desired development patterns were stated in a 1980's PUC Development Plan (DP) which hasn't been changed with changing economic and social events in the last twenty years. The Department of Planning and Permitting (DPP) has been trying since 1996 to revise the old PUCDP. They came out with a draft DP in July 1999 but it was dropped and they had additional public meetings in April and June 2001. DPP began to write up the plan in late 2001and hope to disclose the plan to public soon. The adoption of a new Development Plan should precede the designing of transit stations and other facilities in the in-town area of the PUC.

Page 1-4 The PUC is by far the most populated DP Area with 432,000 people (52 percent of the island total) in 1990....

Page 1-7 Oahu's population increased at an average annual rate of 1.63 percent during the twenty-year period from 1970 to 1990.

Page 1-7 Table 1.2-1 Projected Population Summary

It is laughable situation how the writers of this SDEIS avoid using Census 2000 figures throughout this document. The Census 2000 population figures for 8 DP areas were available in April 2001. Oahu's population increased at an average annual rate of 0.48 percent during the ten-year period from 1990 to 2000, instead of 1.63 percent for the twenty-year period between 1970 and 1990. The total projected population for 2025 is about 985,000 based on an average annual rate of 0.48 percent, instead of 1,029,800 for 2025. The table uses a 1997 estimated population figure which is based on 1990 Census figures when the 2000 Census figures are available. The DPs' population figures are showing a shift from a negative growth for the PUC to a higher positive growth for Ewa, Central Oahu and Waianae. The other DP areas had only modest population growth. When the employment figures are derive from 2000 Census, we might find that the annual employment increase of 0.89 percent over the 1997 to 2025 period is too high and the location of these is probably shifting away from the PUC. SDEIS 2025 BRT ridership figure is very inflated.

Page 1-8 Redevelopment in the PUC is designated primarily for the area makai of the H-1 Freeway between Middle Street and Kapahulu Avenue.

This redevelopment designation appeared in the July 1999 PUCDP which DPP has abandoned. DPP is now finishing a second draft. This statement about the redevelopment is little premature at this time.

Page 1-12 Table 1.2-6 Resident Person Trip Travel Demand Within Selected Travel Markets

Was 1995 year selected because the total passengers for Oahu bus system were almost 79 million while the 2000 total passengers were about 69 million?

Page 3-26 Table 3.3-1 Population Growth by Neighborhood (1980-1990)

DPP supply me with neighborhood population growth between 1990 and 2000 in November 2001. Some of your tables were dated November 2001 and March 2002. Some of the neighborhood characteristics were also provided in November 2001.Please use updated figures for the SDEIS.

Page 4-7 Table 4.1-6 Projected 2025 Transit Travel Time Within the Urban Core

In the section on Page 4-6 preceding the table only compared No-Build Alternative with the Refined BRT and not the TSM Alternative. The longest difference between TSM and BRT was about 9 minutes and the shortish was 0.1 minutes. The time savings is very little between the TSM and BRT when you consider the economic and social harmful effects of the exclusive lanes.

Page 4-18 4.2.3 Traffic Operations at Intersections

SDEIS didn't specified how many private cars and commercial vehicles would be displaced by exclusive lanes of the BRT. It only started that they would be displaced. The actual number of passenger and commercial vehicles that would be prevented from using the following streets between 5 AM to 7 PM weekdays are: Kapiolani Blvd.--20,252. vehicles, Ala Moana Blvd.--19,096 vehicles, Dillingham Blvd.--15,227 vehicles, and King Street--11,298 vehicles. Eliminating these vehicles from these Honolulu streets will have adverse financial and social impacts on residents and commercial firms. Some of these displaced vehicles will be forced to travel through adjacent neighborhood streets endangering the safety of residents. There will probably be a shift of traffic throughout the in-town area.

Chapter 6--Financial Analysis and Appendix E--BRT Cash Flow Analysis

The City claims that the BRT will not require any increases in taxes, but the City will have to increase its subsidy to the Public Transportation System from its general revenue. This might cause the City to cut its budget or raise taxes, if it has to balance the budget.

The actual figures are cited from the City's Comprehensive Annual Financial Report for FYs 2000 and 2001.

The actual operating and maintenance (O&M) costs for FYs 2000 and 2001 were respectively: $130,4 million and $140,3 million. In the August 2000 DEIS, the estimate for FY 2001 O&M was $122 million, a $18 million or 15 percent difference between the actual and estimated figures. In addition, their estimate in the SDEIS for FY 2002 O&M costs is $126.6 million which is almost $14 million less than the actual FY 2001 O&M costs of $140.3 million. But if you look at the actual O&M costs for FYs 1999 to 2001, you would find a $10 million growth in the O&M costs each year. Thus the FY 2002 O&M costs might be $150 million instead of $126.6 million as estimated in the SDEIS. This represents a $24 million difference instead of a $14 million difference. Remember these are their early FYs estimations, what creditability or confidence can you have in their other projections to FY

2025?

Since the general fund revenues provide 71percent of O&M funding, O&M subsidies grows faster than the projected subsidies in the BRT cash flow analysis. The Public Transportation System required $112 million O&M subsidies to balance the actual FY 2001 operating revenues and expenditures. The August 2000 DEIS estimation for FY 2001 O&M subsidies was $78 million. The difference between the actual and estimated O&M subsidies was 43.5 percent. Again we are dealing with a first year estimation that is so far off of the mark. In the SDEIS, they project the annual O&M subsidies for FYs 2002 to 2025 to run from $81 million to $277million. Since their estimate for FY2001 O&M subsidies was off by 43.5 percent, I can see the BRT causing ~~a rise~~ an increase in taxes.

Sincerely,

Charles H. Carole

Charles H. Carole
1310 Heulu Street, Apt. 1002
Honolulu, HI 96822

cc: OEQC Ms. Genevieve Salmonson, Director
Councilmember Ann H. Kobayashi

DEPARTMENT OF TRANSPORTATION SERVICES

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DEPUTY DIRECTOR

November 13, 2002

TPD11/00-05370R
TPD5/02-01834R

Mr. Charles H. Carole
1310 Heulu Street, Apt. 1002
Honolulu, Hawaii 96822

Dear Mr. Carole:

Subject: Primary Corridor Transportation Project

This is a combined response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your October 12, 2000 oral testimony at the public hearing, your October 26, 2000 letter, and your November 5, 200 letter regarding the MIS/DEIS. Part B responds to your oral testimony at the April 20, 2002 SDEIS public hearing.

Part A – MIS/DEIS Comments

1. *There were some things that – omissions in the DEIS that I would like to see put in. For example, ridership from 1995 to 1999, it's gone from 80 million people annually down to 69 million people. So there's been a decrease of ridership in the system already. And I'm curious why this wasn't even mentioned in the DEIS.*

   Response There has been a decline not only in transit usage, but in auto usage as well during this period. This is considered to be an aberration due to the downturn in the economy, and is not expected to be the case for the long term. Cities that have implemented BRT routes, such as Los Angeles have seen a dramatic shift from autos to those routes.

2. *Also, at the same time, the amount of registered automobiles on Oahu has also gone down between 1995 and 1998, the latest figures I could get, so that we're having less automobiles registered in Oahu.*

   Response: You are correct, the motor vehicles registered in the City and County of Honolulu decreased from 601,239 in 1995 to 594,096 in 1998; however, in 1999 motor vehicle registrations started to increase and there were 597,610 vehicles registered in the City and County of Honolulu in 1999. According to The State of Hawaii Data Book, 2001, the motor vehicles registered in Honolulu totaled 631,232.

3. *Now, the other problem that the DEIS has is that it sort of concentrates – it thinks that all growth is going to happen in the Primary Urban Center. Unfortunately, we do have other things going on. At the same time, Kapolei and also Central Oahu, especially in the acreage of agricultural lands that is slowly being not seeded, so that the traffic is really going to be going, by 2025, to Kapolei*

end to Central Oahu. And a large -- the population, each time they do a census, moves farther and further away from the Primary Urban Center, so that we're really not going to have that much growth within the urban center.

Response: Not all growth is assumed to occur in the PUC. The Refined LPA is intended to support land use objectives of the Public Review Draft of the Primary Urban Center Development Plan (June 1999), which promotes the concept of "urban villages", a mix of residential, employment and commercial land uses, and the Ewa Development Plan, which seeks to encourage a mix of residential, commercial and employment growth and development in and around the City of Kapolei.

4. *Now we have -- one of the proposals is the dedicated lanes. Now, with the dedicated lanes will cause congestion over the local streets beyond the peak hours and would harm the adjacent neighborhoods with greater traffic through the local streets. People will find other ways of getting around, and they will go through the local streets. And this is not addressed in the DEIS.*

Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

5. *Also, traffic would be affected around places like Wal-Mart, the proposed site for Wal-Mart, and other developments. Again, this is not covered in the DEIS.*

Response: One lane in each direction on Kapiolani Boulevard will be converted to exclusive BRT use between Pensacola Street and Atkinson Drive. This reallocation will result in slightly increased delay for motorists at intersections within this segment of Kapiolani Boulevard. At the same time, delay to BRT vehicles is projected to be significantly less than vehicles in the general-purpose lanes, resulting in increased transit ridership and increased person throughput along Kapiolani Boulevard. Any diversion of traffic is expected to shift to the King-Beretania corridor. The east-west roadways within the Sheridan block do not continue west of Pensacola Street, making them inconvenient alternatives to Kapiolani Boulevard. Additionally, these east-west roadways are expected to serve more of a circulation function given the future development of Wal-Mart and Sam's Club in the "Super Block" area.

6. *Second -- third, there will be congestion on roads from the sea to the mountain areas.*

Response: The BRT routes for the Refined LPA are located primarily on Koko Head-Ewa oriented roadways. The response to comment 5 addresses the impact to these roadways. The only mauka-makai roadways used are Pensacola Street and University Avenue and the analyses in the FEIS show that they are able to accommodate the BRT lanes. Additionally, while traffic signal priority is proposed to help facilitate BRT vehicles through intersections, the signal priority will not be implemented in a manner that is detrimental to mauka-makai traffic flow.

7. *And the fourth thing is the time-saving with these dedicated lanes is really not that great. And I find that buses are quite adequate now.*

Response: Table 4.3-5 in the FEIS compares projected year 2025 peak hour transit travel times within the primary corridor. Within the urban core, travel time differences between the Refined LPA and the No-Build Alternative are approximately 2 minutes under average conditions. This

reflects that effectiveness of the limited stop transit routes (CityExpress!) already operating. The key difference would be that travel times for the BRT on dedicated lanes would be more reliable, even during major traffic incidents. This consistency is important to transit patrons.

8. *The last thing would be the idea that there's no new taxes. There will be taxes. They will be raising our real estate taxes to pay for the City's subsidies that have to made each annual budget period.*

Response: The BRT reflects a prudent approach to meeting future transportation needs without having to raise taxes to implement and operate it. The costs for increases in labor costs, fuel costs, insurance, etc. are accounted for in the financial plan based on historical levels of escalation of these factors. Since the BRT is a bus based system, a great deal of flexibility exists to alter future operations, fare levels, and/or city subsidy to meet higher than forecast escalation in any of these variables.

9. *Since express bus stops are relatively far apart (1/4 to 1/2 mile), dedicated lanes will not eliminate the need for non-express buses using the remaining undedicated lanes.*

Response: The BRT is meant to complement the local bus service in the Primary Transportation Corridor by providing a faster more reliable service for riders by offering limited stop operations in bus priority lanes.

10. *Also, the stations along the routes will take up a partial lane. Automobiles will be virtually restricted from these routes. Residents and businesses will be inconvenienced.*

Response: At the locations of the proposed transit stops, lanes will be maintained to accommodate mixed-traffic. The transit stops are located to have the least impact to residential and business access.

11. *The DEIS doesn't address the current automobile capacity of these routes and the projected reduction in automobile capacity after the dedicated lanes and stations are built and non-express buses are added.*

Response: Chapter 4 of the FEIS presents a quantitative analysis of the effects of converting lanes along the In-Town BRT alignment.

12. *Since vehicles will find alternative routes, the DEIS doesn't address the negative impact that diverted traffic has on other main and neighborhood streets.*

Response: Chapter 4 of the FEIS discusses impacts to other streets off of the In-Town BRT alignment.

13. *Also, the negative impacts on north/south streets were not considered in the DEIS.*

Response: Chapter 4 of the FEIS discusses impacts to mauka/makai streets.

14. *The large parking spaces of the proposed Wal-Mart development and expanded Ala Moana Center are negatively impacted but not considered in this transportation DEIS.*

Response: The Refined LPA significantly enhances transit service within the Kapiolani Boulevard corridor. This increased transit service would enable more customers to utilize transit to travel to

Ala Moana Center and the Wal-Mart superblock. The large transit center at Ala Moana Center illustrates the importance of transit to these large retail developments. A larger transit share of shoppers would benefit Ala Moana Center by either delaying or eliminating the need to construct more parking. With regard to the parking at Wal-Mart and Ala Moana Center being used as a park-and-ride by BRT riders, in the case of the future Wal-Mart, its parking would likely be fully utilized by its customers. It is unlikely that large numbers of BRT riders would park their vehicles at either development. Currently, Ala Moana Center tickets vehicles of people who are not shopping or attending to business at one of the two Ala Moana office towers or the Ala Moana Hotel.

15. *The Bus Rapid Transit is not needed, since some Neighborhood Boards see little growth in the Primary Urban Center for the next 25 years. Families want to go out to Central Oahu and Ewa. Businesses will follow.*

    Response: The Refined LPA is intended to support existing land uses and is consistent with the objectives of the Public Review Draft of the Primary Urban Center Development Plan (June 1999), which promotes the concept of "urban villages", a mix of residential, employment and commercial land uses, and the Ewa Development Plan, which seeks to encourage a mix of residential, commercial and employment growth and development in and around the City of Kapolei.

16. *I support Makiki/Lower Punchbowl/Tantalus Neighborhood Board motions: 1) Against Bus Rapid Transit with dedicated lanes 2) For TSM alternative, Hub-&-spoke Bus Network without in-town dedicated lanes.*

    Response: Comment noted.

17. *The DEIS doesn't address the current vehicle capacity of the transit routes and the projected reduction in vehicle capacity after the dedicated lanes and stations are built and lanes for non-express buses are added.*

    Response: In those places where some lanes will be dedicated for the exclusive use of BRT, the total people carrying capacity of the affective roadway will increase.

    The BRT vehicles will operate at short intervals, as often as every two minutes or less during the morning and evening peak periods, and 4- to 8-minute intervals during off-peak hours. With a standard occupancy level of 75 percent, each BRT vehicle will be carrying the equivalent number of passengers as 65 automobiles at a 1.2 passengers/auto occupancy. Since a typical highly utilized arterial traffic lane carries about 500 vehicles per hour during peak periods, the BRT will be accommodating two to four times as many people as the adjacent traffic lane, depending on the frequency of BRT service along that section of the alignment.

18. *Since vehicles will find alternative routes, the DEIS doesn't address the negative impact that diverted has on other main and neighborhood streets.*

    Response: See response to comment #4.

19. *Also, the negative impacts on north/south streets were not considered in the DEIS.*

    Response: The traffic impact analyses presented in Chapter 4 of the FEIS reflect mauka/ makai streets as well as Ewa/ Koko Head streets.

20. *The use of large amount of parking at the proposed Wal-Mart development and the expanded Ala Moana Center will cause congestion but not considered in this DEIS.*

    Response: See response to comment #14.

21. *The DEIS doesn't give a true picture of the bus ridership situation. Since 1995 the annual ridership has gone down from 80 million to 69 million in 1999, this occurs at the time with increase in number of buses in the system and added routes.*

    Response: See response to comment #1.

22. *On top of this situation, the DEIS is projecting a 74% ridership increase for 2025 from the 1999 figure. A shortfall in ridership will have negative impact on the fiscal affordability of the transportation system.*

    Response: In the event actual ridership does not grow at the same pace as forecasted, the purchase and deployment of buses can be scaled back so as not to outpace available funding.

23. *The adjustment to the 2025 population projection (Table 4.2-8) shows increased non-construction employment, but is the increased employment in Ewa and Central Oahu, not in the in-town area. The DEIS doesn't specify where the growth area will be.*

    Response: Table 4.2-8 of the DEIS was intended to demonstrate a sensitivity analysis between the original population and employment forecast used in the transportation demand analysis and the revised forecast. Updated information on the geographic distribution of population and employment growth is provided in Section 1.2 of the FEIS.

24. *The DEIS should consider the public comments on the 1999 proposed PUCDP which were against higher density and flexible development standards. A new PUCDP should be approved before considering the drastic change contemplated by the Bus Rapid Transit (BRT) and its dedicated lanes.*

    Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. . The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990. However, even if there is a re-emphasis, we find it doubtful that the DPP and ultimately the City Council would abandon all efforts for urban infill and prevention of urban sprawl in our agricultural and rural areas of central and leeward Oahu.

25. *The DEIS says that the type of BRT system hasn't been selected yet.*

    Response: The long-term vehicle propulsion technology has not yet been selected. The implementation plan is to use hybrid-electric buses initially for the In-Town BRT, and in 2008 make a decision on whether to continue with this technology or to replace it with embedded plate technology (EPT).

26. *How much risk is there in the BRT cost in being much higher?*

    Response: There is a 25 percent estimating contingency already built into the projected capital cost. The cost estimate is based on the most costly BRT technology, EPT.

27. *The DEIS makes a point that there will be no new taxes, but I assume that this means no new form of tax, only an increase in existing form of taxes.*

    Response: This project has been developed following City Council policy to not increase taxes. The financial analysis (Chapter 6 of the FEIS) shows that no increases in existing taxes or new taxes will be required to fund the project as proposed.

28. *The DEIS doesn't address possibility with higher congestion that businesses would move out to Ewe or Central Oahu to be closer to resident homes, thus reducing the trips to the in-town area of the PUC.*

    Response: The growth forecasts used in the PCTP do include a redistribution of businesses to Ewa and Central Oahu, as well as retention of existing businesses in the PUC.

29. *Also, with changing work habits over the next 25 years, there will be decentralization of businesses throughout Oahu. It is difficult to plan and build for 2025, when things are changing. If this plan was done in 1975, our growth would be much smaller than projected.*

    Response: Since the BRT is a bus based system, a great deal of flexibility exists to alter future operations to be in sync with shifts in population levels and/or distribution.

30. *The Transportation System Management alternative, the Hub-and-Spoke Bus Network, should be fully implemented with its highway improvements. The system should be completed and given a reasonable operational period to be evaluated. The DEIS doesn't discuss this option.*

    Response: The Refined LPA will be phased in over a 15-year period, starting with conversion of the bus system to a hub-and spoke configuration. During the early stages the Refined LPA will operate very much like the TSM Alternative.

Part B – SDEIS Comments

31. *I'm with the Makiki/Lower Punchbowl/Tantalus Neighborhood Board. To begin with, we believe that the present bus system is excellent.*

    Response: Comment noted.

32. *And we supported the Transportation System Management Plan, which includes hub-and-spoke transit centers, park-and-ride sites, ramps to the H-1, Express buses for Regional BRT, and buses in the in-town portion without – now I specify – without dedicated lanes. We are against the BRT with its exclusive lanes.*

    Response: Comment noted.

33. *Now, we're getting a little perturbed with some of the statements that the DTS and also even the City Council – some members of the City Council says the BRT will not require any increase in taxes.*

    Response: Comment noted.

34. *Now, in fiscal year 2001, using the official report of the Department of Budget and Finance, they said that the operating cost was 140 million for the transportation, and that's the City's subsidy. Capital input into it was $117 million. When you looked at the estimate that the City put in their 2000 EIS, they indicated, for 2001, that the thing would be – that the operating cost would be $122 million. They were $18 million off on the first year of their projections. Can you imagine what they will be 25 years from now?*

    Response: The number cited from the FY 2001 Department of Budget and Finance Report includes depreciation on the bus fleet as well as direct operating cost. Depreciation is not an actual Operating and Maintenance Cost, which is what was shown in the SDEIS and now in the FEIS.

35. *Now, the City is faced with it. They're broke. And the chief of the City Council budget committee said, "We're broke" and they're now considering raising taxes as one of the options. So – or else they'll raid a special fund, which they're supposed to put back at some later date. It seems to me that the City is deferring all their costs for some other time.*

    Response: Comment noted. It is beyond the project scope to analyze the City's entire budget.

36. *EIS, the Draft Supplemental EIS does not make any statement about the business, the impact on private firms along the corridor.*

    Response: Business impacts of the BRT Alternative were addressed in various sections of the MIS/DEIS, SDEIS and FEIS, including Sections 5.1, 5.2, 5.3 and 5.12.11.

37. *They do not indicate where the traffic will go if it doesn't go along Kapiolani, Ala Moana, or University Avenue. Where is it going to go?*

    Response: See response to comment #4.

38. *They're also now blocking off King Street.*

    Response: There are no plans as part of the Refined LPA to block off King Street.

39. *Can you imagine – last week they were fixing two lanes on – at the point of Dillinghem, King and Beretania. The traffic on Beretania at four, five o'clock, was all the way over to Pensacola. This is not a good solution. What they should go back to is the TSM, and that's what they should do.*

    Response: Comment noted. It is a statement of preference for the TSM Alternative.

40. *1. Increase the people-carrying capacity of the transportation system in the primary corridor by providing attractive alternatives to the private automobile. This project purpose would not only deprive private automobiles from lane spaces, but also commercial automobiles and trucks which will raise business costs and will eventually cause raising vacancy rates for offices and stores in the Primary Urban Center (PUC).*

Response: See response to comment #4.

41. *Also, Costco is moving into the Iwilei area in June 2002 and most customers will carry their large quantity of purchased-goods in cars, not on public transportation. It will be interested how big box businesses will be affected by restricted traffic lanes. Your SDEIS didn't speak to this economic impacts in Chapter 5-Environmental Analysis and Consequences (page 5-15 to 5-20), but only spoke about employment of construction and transit workers. The section didn't discuss the economic effects on area businesses like automobile dealer, supply dealers and others.*

Response: The BRT is not intended to replace the automobile, but to give people an alternative to driving a car for certain types of trips. Impacts to businesses, to the extent they can be quantified are discussed in Chapter 5 of the FEIS.

42. *2. Support desired development patterns. The desired development patterns were stated in a 1980's PUC Development Plan (DP) which hasn't been changed with changing economic and social events in the last twenty years. The Department of Planning and Permitting (DPP) has been trying since 1996 to revise the old PUCDP. They came out with a draft DP in July 1999 but it was dropped and they had additional public meetings in April and June 2001. DPP began to write up the plan in late 2001 and hope to disclose the plan to public soon. The adoption of a new Development Plan should precede the designing of transit stations and other facilities in the in-town area of the PUC.*

Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. . The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

43. *Page 1-4 The PUC is by far the most populated DP Area with 432,000 people (52 percent of the island total in 1990. Page 1-7 Oahu's population increased at an average annual rate of 1.63 percent during the twenty-year period from 1970 to 1990. Page 1-7 Table 1.2-1 projected Population Summary. It is laughable situation how the writers of this SDEIS avoid using Census 2000 figures throughout this document. The Census 2000 population figures for 8 DP areas were available in April 2001. Oahu's population increased at an average annual rate of 0.48 percent during the ten-year period from 1990 to 2000, instead of 1.63 percent for the twenty-year period between 1970 and 1990. The total projected population for 2025 is about 985,000 based on an average annual rate of 0.48 percent, instead of 1,029,800 for 2025. The table uses a 1997 estimated population figure which is based on 1990 Census figures when the 2000 Census figures are available. The DPs' population figures are showing a shift from a negative growth for the PUC to a higher positive growth for Ewa, Central Oahu and Waianae. The other DP areas had only modest population growth. When the employment figures are derive from 2000 Census, we might find that the annual employment increase of 0.89 percent over the 1997 to 2025 period is too high and the location of these is probably shifting away from the PUC. SDEIS 2025 BRT ridership figure is very inflated.*

Response: The SDEIS used the census information contained in the MIS/DEIS, which at the time it was prepared in mid-2000, year 2000 census information at the DP level was not available. No changes were made because DP population information is not relevant to the elements of the project covered by the SDEIS, but is relevant to the overall project. Therefore, the FEIS uses the most up to date 2000 census information available.

The projected year 2025 employment used as input into the travel demand model runs used for the FEIS is identical to the 2025 employment used for the Oahu Regional Transportation Plan (ORTP) Update conducted by the Oahu Metropolitan Planning Organization (OMPO). The employment projection was developed statewide and disaggregated to the county level by the State of Hawaii Department of Business, Economic Development and Tourism (DBEDT). The City and County of Honolulu Department of Planning and Permitting then allocated the countywide employment forecast to the traffic analysis zone level. A similar procedure was used for population. The OMPO Policy Committee then adopted the resulting population and employment forecasts as the regional long-range socio-economic forecasts.

44. *Page 1-8 Redevelopment in the PUC is designated primarily for the area makai of the H-1 Freeway between Middle Street and Kapahulu Avenue. This redevelopment designation appeared in the July 1999 PUCDP which DPP has abandoned. DPP is now finishing a second draft. This statement about the redevelopment is little premature at this time.*

Response: There is no indication of when the updated Primary Urban Center Development Plan (PUC DP) will be adopted by the City Council. The environmental review process of the Primary Corridor Transportation Project (PCTP) cannot be delayed pending this outcome. . The In-Town BRT has been designed to support current land uses and future land use patterns, particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the PCTP. Because of this, the Refined LPA has been evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (May 2002), as well as the current PUC DP adopted in 1990.

45. *Page 1-12 Table 1.2-6 Resident Person Trip Travel Demand Within Selected Travel markets. Was 1995 year selected because the total passengers for Oahu bus system were almost 79 million while the 2000 total passengers were about 69 million?*

Response: The FEIS uses year 2000 as the base year. The DEIS utilized an earlier version of the travel demand model maintained by the Oahu Metropolitan Planning Organization (OMPO). It used year 1995 as the base year. As part of the Oahu regional transportation plan update, Transportation for Oahu Plan (TOP 2025) the base year was changed to year 2000. This updated model was used for the analyses documented in the FEIS, so that the forecasting results would be consistent with the TOP 2025.

46. *Page 3-26 Table 3.3-1 Population Growth by Neighborhood (1980-1990) DPP supply me with neighborhood population growth between 1990 and 2000 in November 2001. Some of your tables were dated November 2001 and March 2002. Some of the neighborhood characteristics were also provided in November 2001. Please use updated figures for the SDEIS.*

Response: None of the tables in Section 3.3 of the SDEIS, Neighborhoods, used sources dated November 2001 or March 2002. Please see response regarding year 2000 census information above.

47. *Page 4-7 Table 4.1-6 Projected 2025 Transit Travel Time Within the Urban Core. In the section on Page 4-6 preceding the table only compared No-Build Alternative with the Refined BRT and not the TSM Alternative. The longest difference between TSM and BRT was about 9 minutes and the shortest was 0.1 minutes. The time savings is very little between the TSM and BRT when you consider the economic and social harmful effects of the exclusive lanes.*

    Response: There are not projected to be economic and social harmful effects resulting from the exclusive BRT lanes. Time savings was only one measure used in comparing the Alternatives. The BRT Alternative performed better on most measures, and was therefore selected by the City Council as the Locally Preferred Alternative.

48. *Page 4-18 4.2.3 Traffic Operations at Intersections. SDEIS didn't specified how many private cars and commercial vehicles would be displaced by exclusive lanes of the BRT. It only stated that they would be displaced. The actual number of passenger and commercial vehicles that would be prevented from using the following streets between 5 AM to 7 PM weekdays are: Kapiolani Blvd. -- 20,252 vehicles, Ala Moana Blvd. – 19,096 vehicles, Dillingham Blvd. – 15,227 vehicles, and King Street – 11,298 vehicles. Eliminating these vehicles from these Honolulu streets will have adverse financial and social impacts on residents and commercial firms. Some of these displaced vehicles will be forced to travel through adjacent neighborhood streets endangering the safety of residents. There will probably be a shift of traffic throughout the in-town area.*

    Response: Tables 4.4-3 and 4.4-6 in Chapter 4 of the FEIS contain screenline analyses for the Dillingham Boulevard and Kapiolani Boulevard corridors, respectively. These tables summarize the shift in traffic among parallel streets within these corridors for the No Build, TSM, and Refined LPA Alternatives. The majority of any shift in traffic is forecasted to occur on parallel major roadways. The smaller side streets are discontinuous, making them inconvenient for corridor traffic to use as alternative routes.

49. *Chapter 6 – Financial Analysis and Appendix E – BRT Cash Flow Analysis. The City claims that the BRT will not require any increases in taxes, but the City will have to increase its subsidy to the Public Transportation System from its general revenue. This might cause the City to cut its budget or raise taxes, if it has to balance the budget.*

    Response: Operations and maintenance (O&M) costs will be higher for a system that has more capacity and carries more passengers. If the fares are kept at 27 percent of operating costs, then the BRT O&M costs will be an average of $16.1 million more than the No Build O&M costs, and $10.9 million more than the TSM Alternative. The City has the financial capacity for this increase using existing sources of revenue.

50. *The actual figures are cited from the City's Comprehensive Annual Financial Report for FYs 2000 and 2001.*

    The actual operating and maintenance (O&M) costs for FYs 2000 and 2001 were respectively: $130.4 million and $140.3 million. In the August 2000 DEIS, the estimate for FY 2001 O&M was $122 million, a $18 million or 15 percent difference between the actual and estimated figures. In addition, their estimate in the SDEIS for FY 2002 O&M costs is $126.6 million which is almost $14 million less than the actual FY 2001 O&M costs of $140.3 million. But if you look at the actual O&M costs for FYs 1999 to 2001, you would find a $10 million growth in the O&M costs each year. Thus the FY 2002 O&M costs might be $150 million instead of $126.6 million as estimated

in the SDEIS. This represents a $24 million difference instead of a $14 million difference. Remember these are their early FYs estimations, what creditability or confidence can you have in their other projections to FY 2025?

Response: As noted in the response to Question 34, the O&M costs cited for 2000 and 2001 include depreciation while the O&M shown in the DEIS, SDEIS, and the FEIS are O&M costs without depreciation. Depreciation pertains to asset value and not to O&M cost per se. In addition, the projections of O&M cost included in the various study phases are reviewed during each phase and compared to actual and budgeted O&M costs and revenues.

51. *Since the general fund revenues provide 71 percent of O&M funding, O&M subsidies grows faster than the projected subsidies in the BRT cash flow analysis. The Public Transportation System required $112 million O&M subsidies to balance the actual FY 2001 operating revenues and expenditures. The August 2000 DEIS estimation for FY 2001 O&M was $78 million. The difference between the actual and estimated O&M subsidies was 43.5 percent. Again we are dealing with a first year estimation that is so far off of the mark. In the SDEIS, they project the annual O&M subsidies for FYs 2002 to 2025 to run from $81 million to $277 million. Since their estimate for FY 2001 O&M subsidies was off by 43.5 percent, I can see the BRT causing an increase in taxes.*

    Response: The FY 2001 Department of Budget and Finance Report cited figure of $112 includes depreciation on the bus fleet. Depreciation is not an actual Operating and Maintenance Cost, and is therefore not shown in the transit subsidy in the SDEIS or FEIS.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

HELEN T. CARROLL (R)
425 ENA ROAD #1007-B
HONOLULU HI 96815
808/944-1718

RECEIVED
Oct 6 10 06 AM '00
CITY CLERK
HONOLULU, HAWAII

October 5, 2000

Ms. Cheryl Soon, Director
Dept of Transportation Services
711 Kapiolani Blvd. Suite 1200
Honolulu HI 96813

Subject: Testimony - City Council Hearing
on Primary Corridor Transportation Project

Dear Ms. Soon:

This is to provide you with my concerns and recommendations in regard to the subject matter, which I will also express tonight at the City Council Hearing. My concerns are generated based on the information provided at the Community Briefing Meeting held on October 2, 2000.

To introduce myself, I am a licensed Realtor, and I am the President of the Board of Directors of The Kalia, Inc., a 304 unit residential cooperative located on Ena Road.

1. The disclosure made at the Briefing Meeting in regard to the proposed system is shocking. It was stated that the system selected has only been implemented in one city in the world, located in Italy, and that system is still in a testing phase during the nighttime hours. In other words, Honolulu is the guinea pig. This is totally irresponsible on the part of the City Council

2. Ala Moana and Kapiolani Routes
Installing the system with two dedicated lanes on both Ala Moana and Kapiolani Blvd. is unnecessary and will create a traffic nightmare. It is a five minute walk between these routes.

This is an area that will soon be impacted with construction of a large retail facility, which will be accessed primarily by motor vehicle, not transit riders.

The route on Kapiolani Blvd will eliminate street parking, affecting existing businesses.

Visitors attending the convention center will be able to walk along the nicely improved walkway beside the Ala Wai Canal from Ala Moana Blvd. or walk along Atkinson Drive.

If such a system is installed, the Kapiolani Blvd route should be moved with the Kokohead route on King Street and Ewa bound route on Beretania. This allow the system to be available to increased ridership.

3. Kalakaua and Kuhio Routes
Routes thru Waikiki should include utilization of the dedicated lanes for the transit with the existing bus service, with one dedicated lane on Kalakaua, and one on Kuhio. Do not eliminate a lane of traffic on Kuhio for the transit in addition to accommodating east and west bound bus service. Recognize that we are not giving up our vehicles. Do whatever possible to accommodate vehicular traffic as well.

4. Testing of Final Route Determination
Prior to making commitments for a specific transit system, the dedicated lane system should be implemented with the existing bus fleet. It is absolutely insane to make a commitment such as the proposed system, without insuring that it is truly functional, solves the problem being addressed. Implementation of a system test will allow obvious adjustments to be made, and tested, rather than spending millions of dollars and finding a nightmare has been created.

5. Government Employees
Mayor Harris has made it clear he is a strong proponent of the proposed transit system, and has a strong desire to dramatically reduce vehicular traffic. This should begin with the requirement that government employees should be required to take public transportation to work. Perhaps some incentive could be determined to encourage this. We might find it may eliminate the need for implementing this costly transit system. This is the very first item that should be addressed.

5. Illogical Traffic Patterns
The planned traffic flow thruout Honolulu is illogical. The City needs to reevaluate the traffic patterns to move traffic more efficiently. Well planned left and U turns allow traffic to move to the destination, removing them from the traffic pattern at a faster pace. Multiple one-way streets going in the same direction also adds to the traffic congestion we experience. Logically reevaluate the system in place.

In closing, I strongly oppose the proposed transit system without first addressing the Government Employee issue stated, and if a system is still determined to be required, each of the above recommendations are a must.

Yours truly,

Helen T. Carroll (R)

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00542

November 13, 2002

Ms. Helen T. Carroll
425 Ena Road, #1007-B
Honolulu, Hawaii 96815

Dear Ms. Carroll:

Subject: Primary Corridor Transportation Project

This is a combined response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your October 5, 2000 letter and your October 5, 2000 oral testimony at the Special Transportation Committee meeting regarding the MIS/DEIS. Part B responds to your oral testimony at the April 20, 2002 SDEIS public hearing.

Part A – MIS/DEIS Comments

1. *The disclosure made at the Briefing Meeting in regard to the proposed system is shocking. It was stated that the system selected has only been implemented in one city in the world, located in Italy, and that system is still in a testing phase during the nighttime hours. In other words, Honolulu is the guinea pig. This is totally irresponsible on the part of the City Council.*

   Response: No specific traction power technology has been select yet for the long-term. What has been decided is that the type of buses to be used for the BRT need to be environmentally friendly, meaning quieter and less polluting than diesel buses. One of the technologies being considered is embedded plate technology (EPT), which consists of electric vehicles that receive their power through a wayside contact system located in power strips embedded into the street. The other vehicle motive technology under consideration is hybrid-electric. There are several manufacturers developing their own versions of the embedded plate technology. One of them, Ansaldobreda has a demonstration installation in Trieste, Italy. Since none of the EPT are available today for 60-foot, low-floor articulated buses, the plan for implementing traction power technology is to install an initial service proven technology (hybrid-electric buses) and decide whether to replace it using EPT in 2008.

2. *Installing the system with two dedicated lanes on both Ala Moana and Kapiolani Blvd. is unnecessary and will create a traffic nightmare. It is a five minute walk between these routes. This is an area that will soon be impacted with construction of a large retail facility, which will be accessed primarily by motor vehicle, not transit riders.*

   Response: The In-Town BRT branches on Ala Moana and Kapiolani Boulevard will serve different destinations and corridors. The branch on Ala Moana Boulevard will serve Waikiki and the Ala Moana/Kakaako corridor. The branch on Kapiolani Boulevard will serve U.H.-Manoa and

the King/Kapiolani corridor. The relatively close proximity of the two BRT branches at Ala Moana Center allows passengers to transfer between the two branches. As evidenced by the large transit terminal at Ala Moana Center, there is significant use of transit to access retail uses.

3. *The route on Kapiolani Blvd. will eliminate street parking, affecting existing businesses.*

   Response: As stated in Chapter 4 of the MIS/DEIS, implementation of the Refined LPA on Kapiolani Boulevard will displace about 48 unmarked spaces on the makai side of Kapiolani Boulevard between McCully Street and University Avenue plus roughly 166 affected spaces on Kapiolani Boulevard occur along the stretch between Pensacola and McCully Streets.

4. *Visitors attending the convention center will be able to walk along the nicely improved walkway beside the Ala Wai Canal from Ala Moana Blvd. or walk along Atkinson Drive.*

   Response: Comment noted. The project agrees with this statement.

5. *If such a system is installed, the Kapiolani Blvd. route should be moved with the Kokohead route on King Street and Ewe-bound route on Beretania. This allows the system to be available to increased ridership.*

   Response: A significant segment of the U.H.-Manoa BRT branch runs on South King Street between Richards Street and Pensacola Street. It was decided to run the Ewa-bound direction of the BRT in an exclusive contra-flow lane on South King Street to keep Koko Head and Ewa directions of the route along the same street, simplifying usage for transit riders.

   Locating the entire U.H.-Manoa BRT branch on the King/Beretania route was explored in the early phases of the Primary Corridor Transportation Project. The amount of access along King and Beretania, on-street parking, and the desire to serve activity nodes such as Ala Moana Center and the Hawaii Convention Center argued for transitioning the route to Kapiolani Boulevard. Using Kapiolani Boulevard in the vicinity of Ala Moana Center also makes it possible for riders to connect with the Waikiki In-Town BRT branch and with the major transit transfer hub at Ala Moana Center.

6. *Routes through Waikiki should include utilization of the dedicated lanes for the transit with the existing bus service, with one dedicated lane on Kalakaua, and one on Kuhio. Do not eliminate a lane of traffic on Kuhio for the transit in addition to accommodating east and west-bound bus service. Recognize that we are not giving up our vehicles. Do whatever is possible to accommodate vehicular traffic as well.*

   Response: The Kalakaua/ Kuhio loop maintains auto access as well as passenger and freight loading zones on both Kalakaua and Kuhio Avenues.

   Sidewalks on Kuhio Avenue are planned to be widened independent of the primary corridor project as part of the Livable Waikiki Initiative. The lane designation on Kuhio Avenue with the Refined LPA will maintain one mixed traffic lane in each direction, plus an Ewa bound semi-exclusive BRT lane and a turning lane. In some areas, the laneage is one mixed traffic lane adjacent to the curb in each direction and Diamond Head-bound BRT lane.

7. *Prior to making commitments for a specific transit system, the dedicated lane system should be implemented with the existing bus fleet. It is absolutely insane to make a commitment such as the*

proposed system, without insuring that it is truly functional, solves the problem being addressed. Implementation of a system test will allow obvious adjustments to be made, and tested, rather than spending millions of dollars and finding a nightmare has been created.

Response: The proposed BRT system is based on ridership experience of the City's existing bus services, including the recently implemented express bus services that use much of the proposed BRT alignment, forecasts of BRT and local bus ridership using regional travel forecasting models, and input received at hundreds of public outreach meetings. A test without all features of the BRT system in place (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-floor vehicles with level boarding through multiple doors) would be misleading and not a true test of the system. For example, the project proposes to completely reconstruct Dillingham Boulevard through the Kalihi area to provide significant pedestrian amenities to facilitate access to BRT stations, as well as building new BRT stations and exclusive lanes in the center of the roadway. Without such major reconstruction, it would not be possible to provide the substantial time savings for transit riders through this corridor that would be offered by the BRT. Most importantly, potential new riders would not likely perceive the demonstration service as permanent and would not be induced to change their travel mode.

8. *Mayor Harris has made it clear he is a strong proponent of the proposed transit system, and has a strong desire to dramatically reduce vehicular traffic. This should begin with the requirement that government employees should be required to take public transportation to work. Perhaps some incentive could be determined to encourage this. We might find it may eliminate the need for implementing this costly transit system. This is the very first item that should be addressed.*

   Response: While elected officials can encourage government employees (along with all employees) to use public transportation, they can't force them to do so. The proposed approach is instead to provide an alternative to the private auto, namely BRT, that attracts people to it because it is faster and more reliable than the existing bus system would be able to be in the future as population grows and roadways become more congested. The City does provide an incentive to city employees by allowing them to do a pre-tax payroll deduction for purchase of monthly transit passes. They also provide bus passes for use by employees during the day when traveling on city business. The city runs education programs for new employees about these transit incentives as part of their orientation program. The State of Hawaii has similar incentives for state employees.

9. *The planned traffic flow throughout Honolulu is illogical. The City needs to reevaluate the traffic patterns to move traffic more efficiently. Well planned left and U turns allow traffic to move to the destination, removing them from the traffic pattern at a faster pace. Multiple one-way streets going in the same direction also adds to the traffic congestion we experience. Logically reevaluate the system in place.*

   Response: DTS continually re-evaluates the level of service provided by existing roadways and continually makes modifications to City streets to provide improved level of service for its users.

10. *In closing, I strongly oppose the proposed transit system without first addressing the Government Employee issue stated, and if a system is still determined to be required, each of the above recommendations are a must.*

    Response: See response to comment #8.

11. *The first thing I'd like to mention is that at the meeting on October 2, there's been a disclosure about the proposed system and the fact that it's only been implemented in one city and that was in Italy and right now it's in the testing stage. So, I would hope that it's a long time before we make a decision on selecting that as the proposed system.*

    Response: See response to comment #1.

12. *Now I'd like to address some of the routes that are proposed on Ala Moana and Kapiolani which is also being discussed by others. I think Kapiolani is really a mistake. We're looking at building a really big retail store on Keeaumoku. We're going to have a lot of vehicle traffic. That type of business is not going to attract bus riders. It's going to attract people with cars. So, if you have transit on both Ala Moana and Kapiolani, I mean, you've just knocked out all of the traffic. It's going to be a traffic nightmare.*

    Response: Traffic growth throughout the urban core of Honolulu is a major concern and the reason why the BRT is being explored as a way to increase the capacity and efficiency of the transit system. An enhanced transit system would attract more transit riders, helping the transportation system to achieve a better balance between different modes of travel.

13. *The route on Kapiolani will also eliminate street parking. This is going to have an impact on businesses.*

    Response: With the implementation of the BRT Alternative, Ward Avenue between South King Street and Kapiolani Boulevard would lose roughly 49 parking spaces. Of the 49 affected spaces, about 17 are unrestricted parking spaces that are currently available during both peak and off-peak hours and 32 are restricted parking spaces that currently available during off-peak hours.

    It is expected that the BRT Alternative will provide an attractive, affordable, dependable transportation option to the private automobile resulting in over 20,000 people per day diverting out of their cars to use transit. Some of these former auto drivers will be able to give up their cars or park their cars in outlying park-and-ride facilities. Therefore, parking demand in the BRT Alternative is expected to decline.

14. *Then, as far as visitors attending the Convention Center, they don't need to have transit both on Kapiolani and Ala Moana. They can do that wonderful walkway along the Ala Wai. You made that a really nice pleasant walk. Or else they can go up Atkinson. So, you don't need transportation along Kapiolani.*

    Response: Some visitors will indeed utilize the Waikiki Branch to access the Convention Center. Others would utilize the U.H.-Manoa Branch, depending on their point of origin. These two branches work together to provide convenient access for the greatest number of people.

15. *Finally, I was really happy to hear that you're going to have a test of this with the existing bus slate. Because this way we'll know whether it's going to work or not before we spend millions of dollars and find out we have a nightmare. So that you can make modifications and all of that.*

    Response: No test of the BRT Alternative has been proposed. The proposed BRT system is based on ridership experience of the City's existing bus services, including the recently implemented express bus services that use much of the proposed BRT alignment, forecasts of BRT and local bus ridership using regional travel forecasting models, and input received at

hundreds of public outreach meetings. A test without all features of the BRT system in place (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-floor vehicles with level boarding through multiple doors) would be misleading and not a true test of the system. For example, the project proposes to completely reconstruct Dillingham Boulevard through the Kalihi area to provide significant pedestrian amenities to facilitate access to BRT stations, as well as building new BRT stations and exclusive lanes in the center of the roadway. Without such major reconstruction, it would not be possible to provide the substantial time savings for transit riders through this corridor that would be offered by the BRT. Most importantly, potential new riders would not likely perceive the demonstration service as permanent and would not be induced to change their travel mode.

16. *Finally, Mayor Harris has made it very clear that he's very supportive of a transit system. He wants to eliminate cars. Well, I think the first step that all of you can make is that government employees should be required to take public transportation. We may not even have a need for transit at that point. Additional transit. Because we'll eliminate a lot of traffic.*

    Response: See response to comment #8.

17. *And then finally, there's lot of illogical traffic patterns and I think that needs to be visited. There's things to be against left-turns and u-turns in this City and if that's looked at you can eliminate cars being on the road so long. Also the one-way streets have to be looked at again. So, until those things are looked at, I oppose it.*

    Response: These are not issues being addressed by the PCTP.

Part B – SDEIS Comments

18. *The purpose of this communication is to state my position in regard to the BRT project. I am in opposition to the in-town BRT project.*

    Response: Thank you for taking the time to attend the public hearing and express your opinion regarding the project.

19. *I have attended the majority of the meetings held in regard to this project, and find that my position of opposition has increased.*

    Response: No response required. It is a statement of preference.

20. *It current plan makes it quite clear the intent is to remove Honolulu, and more specifically Waikiki residents ability to drive their vehicles in Waikiki, and also in the Dillingham area. A number of years ago, the City and County proposed the elimination of vehicular traffic in Waikiki, and to convert the area into a pedestrian mall. With the proposed plans, it is obvious once implemented, the next step the Dept of Transportation will be is to determine the removal of the vehicular lanes on Kuhio and Kalakaua is absolutely necessary due to the gridlock. Politics as usual!*

    Response: Comment noted.

21. *As a resident of Waikiki, and a business person who must rely on my car to conduct my business, I strongly object. I must have vehicular access to my residence, and as a Realtor, to the many properties I serve. All residents are entitled to this right.*

    Response: The proposed BRT project will not affect access to your residence or the properties you serve.

22. *Another concern that has not even been discussed, is the impact of this high-speed, frequent system on the safety of pedestrian. With our aging residents, and tourists this is an issue that must be addressed.*

    Response: Safety of pedestrians has been addressed in Chapter 4 of the FEIS.

23. *The implementation of the in-town BRT will be a total nightmare to all residents and businesses in the area.*

    Response: Construction can result in disruptions to businesses, but the intent is to work with the local businesses and communities to keep them apprised of construction activities.

24. *At the very first meeting held in regard to BRT, I recommended the implementation of a test of the system. This would be performed by the enforcement of utilization of the traffic lanes as being proposed to determine the true impact, and again gain public comment. This would eliminate spending millions of dollars, and disrupting all our lives with the endless construction prior to finding this is yet another "Traffic camera gone wrong".*

    Response: A test of some of the BRT features are already underway with implementation of the CityExpress! and CountryExpress! Routes. These new routes have been operating with limited stop service for the past several years and have drawn new riders to the bus system. The next step in testing the BRT concept will be implementation of the twiel to Waikiki branch. This will demonstrate the effects of using priority lanes with advanced design buses to attract additional riders.

25. *It is time for our elected officials, and those paid by the public to serve the public to stop, listen, and make decisions to our benefit.*

    Response: No response required.

26. *I'm here to state my opposition to the In-Town BRT project. I've attended the majority of the meetings held in regards to this project and find now that my position is even stronger.*

    Response: Thank you for attending the public hearing and expressing your views regarding the project.

27. *The current plan makes it quite clear the intent is to remove Honolulu end, more specifically, Waikiki residents' ability to drive and park their vehicles in Waikiki and also in the Dillinghem area.*

    Response: As presented in Chapter 4, the impacts of the Refined LPA will be to improve traffic conditions overall, including for motorists in Waikiki and Kalihi.

28. *A number of years ago, the City and County proposed the elimination of vehicular traffic in Waikiki and to convert the area into a pedestrian mall. With the proposed transit, it is obvious, once implemented, the next step for the Department of Transportation will be to determine the removal of all vehicular lanes on Kuhio and Kalakaua is absolutely necessary due to the gridlock. Waikiki than will have to become a pedestrian experience. It's politics as usual.*

    Response: The City has not proposed the elimination of vehicular traffic in Waikiki. A "pedestrian first" policy for Waikiki is recognized by the Waikiki community and it includes many pedestrian enhancements, but the elimination of all vehicular traffic is not being proposed.

29. *Personally, as a resident of Waikiki and as a business person who must rely on my car to conduct business, I strongly object. I must have my car to access my residence and, as a realtor, to the many properties I serve. All residents are entitled to this right.*

    Response: The proposed BRT project will not affect access to your residence or the properties you serve.

30. *Another concern that has not even been discussed is the impact of this high speed frequent system on the safety of the pedestrians. With our aging residents and tourists, this is an issue that must be addressed.*

    Response: See response to comment # 22.

31. *The implementation of the In-Town BRT will be a total nightmare to all residents and businesses in the area, as has been expressed by a lot of people.*

    Response: See response to comment # 23.

32. *At the very first meeting held in regard to BRT, and in subsequent meetings, I recommended the implementation of a test of this system. This would be performed with the enforcement of utilization of the traffic lanes, as being proposed, to determine the true impact and, again, gain public comment. This would eliminate spending millions of dollars and disrupting all of our lives with the endless construction prior to find this is yet another traffic camera gone wrong.*

    Response: See response to comment # 24.

33. *Another recommendation that I made in prior meetings is to require the government employees to take public transportation. This would reduce traffic significantly, and also, it would allow the public to utilize the parking spaces in the city and county facilities for our use when we're there on business.*

    Response: See response to comment # 24.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00543

November 13, 2002

Mr. Keith Chan
45-069 Lilipuna Road
Kaneohe, Hawaii 96744

Dear Mr. Chan:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the November 14, 2000 Special Transportation Committee Meeting regarding your support of the In-Town BRT as the Locally Preferred Alternative (LPA).

We appreciate your support and interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00544

November 13, 2002

Mr. Jimmy Chong
2552 Kalihi Street #A
Honolulu, Hawaii 96819

Dear Mr. Chong:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 26, 2000 Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

> *"I'm here this evening to testify in support of the Bus transit as planned by the City and County Department of Transportation Services. The bus transit alternative will improve public transportation for residents of Oahu. The bus rapid transit proposal will finally do something significant about our traffic congestion."*

Response: Your oral testimony at the November 14, 2000 Special Transportation Committee Meeting supported the In-Town BRT as the Locally Preferred Alternative (LPA).

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
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CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00545

November 13, 2002

Mr. Dave Chun
3180 Ala Ilima Street, Apt. B
Honolulu, Hawaii 96818

Dear Mr. Chun:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 5, 2000 Special Transportation Committee Meeting regarding the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *But here are a couple of observations that I'm still trying to research some issues on and that's, for example, how's the transportation gonna be, how does it relate to planning and zoning, density, the primary urban center development plan?*

   Response: The Refined LPA is intended to support land use objectives of the Public Review Draft of the Primary Urban Center Development Plan (June 1999), which promotes the concept of "urban villages", a mix of residential, employment and commercial land uses.

2. *Next observation is the transportation route. If we do go on a fixed rail or a BRT system, does it really make sense to have an up and down…. Let's use University Avenue, for example. Does it make sense to have an up and down system or why not just have one system with a little oval loop at a transit stop where buses can pass each other. That will save some space.*

   Response: It is not clear from the comment what specifically is being proposed, but if it is to have a single lane with buses operating in both directions and a place to pass at stations, this would not work due to the high volume of buses that would be using the lane. The potential for accidents (head-on collisions) and significant operational delays would be too great.

3. *The third thing in regards to McCully/Mililili, it really comes down to some route. Whether it's University, Isenberg, McCully. But I do want to point out that businesses exist on King Street. And I think if we're gonna support small business… And I did some research on the land ownership along King Street. Many of the lands are owned by small persons. Okay. Not your big corporations. I think by having a fixed rail route along King Street it will assist in equalizing the social-economic playing field for economic advancements.*

   Response: The In-Town BRT UH branch does travel on S. King Street from Downtown to Pensacola Street. It then transitions to Kapiolani Boulevard so that it can serve Ala Moana Center and the Convention Center. Kapiolani Boulevard along this stretch also presents greater opportunities to help shape land development than does King Street since there are a number of large undeveloped or under-utilized parcels.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Dave Kaulike Chun
4831 West Braddock Road, Alexandria, Virginia 22311
624 University Avenue, Honolulu, Hawai'i 96826
Phone: 703-566-2165 Email: daveksbus@msn.com

May 7, 2002

Federal Transit Administration, Region IX
U.S. Department of Transportation
201 Mission Street, Suite 2210
San Francisco, California 94105-1839
Attention: Mr. Ray Sukys and Ms. Donna Turchie

Federal Highways Administration
Prince Jonas Kuhio Kalanianaole Federal Building
300 Ala Moana Boulevard
Honolulu, Hawaii 96813
Attention: Mr. Abraham Wong and Mr. Bruce Turner

Hawaii Office of Environmental Quality Control
State Office Tower, Suite 702
235 South Beretania Street
Honolulu, Hawaii 96813
Attention: Ms. Genevieve Salmonson, Director

Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813
Attention: Ms. Cheryl Soon, Director

Subject: Primary Corridor Transportation Project Bus Rapid Transit (BRT) Supplemental Draft Environmental Impact Statement

Dear Ms. Turchie, Mr. Wong, Ms. Salmonson, and Ms.Soon:

Thank you for the opportunity to submit comments regarding the proposed Bus Rapid Transit Supplemental Draft Environmental Impact Statement. For your review, attached is a resolution regarding the proposed Bus Rapid Transit Plan adopted by the McCully-Mo'ili'ili Neighborhood Board in November 2000.

At the outset, as neighborhood leaders who have been involved for over a decade in issues relating to transportation, planning, and zoning, we believe that the viewpoints set forth in our testimony is a balanced reflection of the sentiment of the McCully-Mo'ili'ili community.

It is now over two year since the McCully-Mo'ili'ili Neighborhood Board adopted its resolution on the proposed BRT Plan, and we continue to expressed our strongest concerns regarding the proposed BRT Plan. The DEIS and SDEIS has not addressed the comments, concerns, and questions contained in the Board's resolution.

- Community involvement: Since the first BRT Plan meeting, the majority of McCully-Mo'ili'ili residents opposed the proposed BRT route on Kapi'olani Boulevard and University Avenue. The assertion that the community consensus was adhered to in making decisions on the BRT Plan is stretched very thin at its best.
- Development and Growth: The BRT Plan does not fully address growth impact issues (eg. Property tax impacts on small landowners and affordable housing) and provisions in the proposed Primary Urban Center Development Plan.
- Financing of BRT Plan: Financial data is not provided for the total cost of the project (capital costs, operations subsidies, and debt service). The City states that federal funding will be 65% of the project. Yet according to the FTA, large projects in terms of dollar amount such as the proposed BRT Plan, would in all likelihood qualify for only a 50% match.
- The BRT Plan does not address the total dollar amount each City taxpayer will pay for the non-federal cost of the project. The City should at the minimum disclose the true costs (operations, debt service, inflation etc.) of the project through 2025. Why has the State decided not to participate with the City in financing the BRT project? Can the City finance the BRT project without raising property taxes or creating a special transportation tax borne by all O'ahu taxpayers?
- Electrical and sewage: There is no definitive data on the financial costs associated with installation, maintenance, and repairs of public utilities.
- Traffic tests: There has been no "live" traffic testing to conclusively determine total traffic impacts on the propose In-town segment of the BRT. The SDEIS does not address traffic overflow into neighborhood streets such as those in and around Lunalilo Elementary School or in the Sheridan block. What are the cumulative traffic impacts on the stable neighborhoods from Kapahulu to Sheridan? Does the City have plans to mitigate these traffic impacts in neighborhoods abutting the BRT corridors? Why has the City Administration not undertaken a pilot traffic project to tests for traffic impacts caused by lane closures?
- Historic sites, landscapes, and view planes: No information is provided on direct and indirect impacts of the BRT Plan on these issues, so essential to maintaining a "Hawaiian Sense of Place."

In summary, we question whether the current bus transportation system has been provided with the necessary financial support to demonstrate maximum efficiency. Further, we ask why a BRT Plan is being proposed in the absence of a Honolulu traffic management plan.

We believe that the BRT Plan has not satisfied all the conditions that must be considered for funding under the New Starts planning and project development process. We believe that the Major Investment Study falls short of compliance with the New Start rules by not adequately evaluating all reasonable modal and multimodal alternatives and general alignment options for addressing the identified transportation needs of Honolulu.

We believe that the locally preferred alternative route is not supported by the community as professed by the City Administration. How can the City proclaim such support for the BRT Plan when even the State has decided against participating in the financing of the project?

We believe that there is a serious need to examine the stability and reliability of the capital financing and operating plan.

We believe that the City Administration has failed to definitively demonstrate that the BRT Plan fulfills technical and financial capacity as required for FTA approval into final design.

We believe that the proposed BRT project should be deferred until the "true" financial costs of the system is made known to the taxpayer.

Very truly yours,

Dave Kaulike Chun (703) 566-2165

Ron Lockwood (808) 955-1986

Alfred Akana (808) 942-9824

cc: Oahu Metropolitan Planning Organization
Honolulu City Council
State Legislature

AR00015799

POSITION OF THE
McCULLY-MO' ILI' ILI NEIGHBORHOOD BOARD NO.8
ON THE
BUS RAPID TRANSPORTATION PLAN

November 2, 2000

The McCully-Mo'ili'ili Neighborhood Board No. 8 submits the following comments regarding the proposed Transportation Plan to the City Council of Honolulu and City Administration.

1. The proposed dedicated fixed tram routes through McCully-Mo'ili'ili as communicated by the City Administration via the Department of Transportation Services as the preferred route voiced by McCully-Mo'ili'ili residents during the Trans 2K community meetings were never supported by participants from our neighborhood. We do not understand the basis for this statement by the City Administration via the Department of Transportation Services.

2. The Major Investment Study Draft Environmental Impact Statement MIS/DEIS is deficient in its economic analysis on alternative modes of transportation and its impact on private transportation systems. The Board takes a cautious approach in supporting a transportation monopoly.

3. We question the logic and arguments presented for an in-town fixed rapid transit system supported by a hub and spoke bus system to a redesigned Middle Street terminus. We suggest that a rapid transit system from the outlining country areas to a Middle Street terminus that would connect riders to bus expresses into the urban core should be open to further exploration and discussion.

4. Due to conflicting statistical information, we question the immediate necessity to make a decision on establishing a dedicated fixed route system.

5. We question whether the City has maximized the potential of the current bus system. We are pleased that the City is investigating alternative forms of energy for the BRT; likewise we suggest that buses in the future could be powered by photo-voltaic fuel cells.

6. We believe the MISIDEIS does not adequately address 21st Century communication systems and its impact on a work force traditionally reliant on transportation to and from an established work center.

7. The City states that the transportation system will dictate future development for the PUC. We believe the MIS/DEIS is does not adequately address social and environmental impacts related to development and growth. We believe transportation, planning, zoning and water resource allocation are inseparable in planning urban growth; and thus believe that an EIS should be prepared with these four components as a sum of the total rather than as individual denominations. We believe segmenting these four components, while perhaps legal under the law, is ultimately detrimental in determining our vision for the future; and ensuring the quality of life we desire for our community of McCully-Mo'ili'ili.

8. We believe that transportation should be developed to help level the economic playing field for small landowners and businesses. We do not believe the Honolulu transportation system should subsidize large investors and landowners at the expense of Hawaii's taxpayer.

9. We recommend that a study be undertaken by an independent company for the proposed BRT and the MIS/DEIS.

10. We recommend the development of an urban Honolulu traffic management plan before proceeding with a fixed rail transportation system.

11. We note that the general public has been given very little time to fully study and comprehend the enormity of the proposals; especially in its impact to development as proposed in the City's Draft Primary Urban Center Development Plan.

12. There are too many unanswered questions for the Board to take the next step in supporting a billion dollar BRT transportation venture. We recommend that an independent study be conducted regarding the proposed BRT financial plan as submitted by the City.

13. The McCully-Mo'ili'ili Neighborhood Board support further studies to analyze financial, social and environmental impacts for fixed rail transportation systems.

14. We are able to support the Transportation System Management Alternative number 2.

John Kato, Chairperson
McCully-Mo'ili'ili Neighborhood Board No. 8.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01841R

November 13, 2002

Mr. David K. Chun
Mr. Ron Lockwood
Mr. Alfred Akana
624 University Avenue
Honolulu, Hawaii 96826

Dear Mr. Chun, Mr. Lockwood, and Mr. Akana:

Subject: Primary Corridor Transportation Project

This is in response to your May 7, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *At the outset, as neighborhood leaders who have been involved for over a decade in issues relating to transportation, planning, and zoning, we believe that the viewpoints set forth in our testimony is a balanced reflection of the sentiment of the McCully – Moiliili community.*

   Response: We appreciate the McCully-Moiliili Neighborhood Board's interest in the project and other transportation issues affecting their area.

2. *It is now over two years since the McCully – Moiliili Neighborhood Board adopted its resolution on the proposed BRT Plan, and we continue to express our strongest concerns regarding the proposed BRT Plan. The DEIS and SDEIS have not addressed the comments, concerns and questions contained in the Board's resolution.*

   Response: Your comments on the MIS/DEIS and SDEIS have been addressed in the FEIS. In particular, concerns regarding land use and the development plan have been addressed in Chapter 5.

3. *Community Involvement: Since the first BRT Plan meeting, the majority of McCully-Moiliili residents opposed the proposed BRT route on Kapiolani Boulevard and University Avenue. The assertion that the community consensus was adhered to in making decisions on the BRT Plan is stretched very thin at its best.*

   Response: Comment noted. It is a statement of opinion and hearsay.

4. *Development and Growth: The BRT Plan does not fully address growth impact issues (e.g. Property tax impacts on small landowners and affordable housing) and provisions in the proposed Primary Urban Center Development Plan.*

   Response: The proposed BRT system is not meant to address non-transportation issues, such as property tax assessments and provision of affording housing. The purpose of BRT is to improve the mobility of people who choose not to use the private automobile.

5. *Financing of BRT Plan: Financial data is not provided for the total cost of the project (capital costs, operations subsidies, and debt service). The City states that federal funding will be 65% of the project. Yet according to the FTA, large projects in terms of dollar amount such as the proposed BRT Plan, would in all likelihood qualify for only a 50% match.*

   Response: The financial plan presented in Chapter 6 shows that a combination of funding sources will be used. Federal sources of capital funding will be FTA formula and grant funds, and FHWA highway program funds. The federal portion of FTA New Starts funds can be as high as 80 percent, but are typically 50 percent shared with the local entity. The Refined LPA assumes a 50 percent federal share for these funds. FHWA funds are 90 percent federally funded for projects on the interstate highway system and 80 percent for other eligible highways. Since some portions of the project will be funded with FTA funds and some with FHWA funds the average federal share is projected to be about 65 percent.

6. *The BRT Plan does not address the total dollar amount each City taxpayer will pay for the non-federal cost of the project. The City should at the minimum disclose the true costs (operations, debt service, inflation etc.) of the project through 2025.*

   Response: The cost of the project through 2025 are spelled out in detail in Chapter 6 and in the cash flow tables in Appendix E of the DEIS, SDEIS, and FEIS.

7. *Why has the State decided not to participate with the City in financing the BRT project?*

   Response: The State through their representatives at OMPO has approved the financing plan for the Regional and In-Town BRT. The financing plan contained in Chapter 6 of the FEIS reflects the agreement reached by the OMPO Policy Committee that City funds rather than State funds would be used for the local match to the FHWA funds that will be used to fund the project. This will enable the approximately $40 million of State funds assumed in the MIS/DEIS to fund the BRT project to be used as the local match for State highway projects instead.

8. *Can the City finance the BRT project without raising property taxes or creating a special transportation tax borne by all Oahu taxpayers?*

   Response: Yes. The project has been phased in such a way as to allow for the use of multiple sources of funding, and to minimize the load on local funding sources in any given year.

9. *Electrical and sewage: There is no definitive data on the financial costs associated with installation, maintenance, and repairs of public utilities.*

   Response: The capital cost estimates that were utilized to complete the financial analysis in the FEIS included construction costs for new utility installations and existing utility modifications necessary for the BRT improvements.

10. *Traffic tests: there has been no "live" traffic testing to conclusively determine total traffic impacts on the propose in-town segment of the BRT.*

    Response: A test of some of the features of BRT are already underway with implementation of the CityExpress! and CountryExpress! Routes. These new routes have been operating with limited stop service for the past several years and have drawn new riders to the bus system. The

next step in testing the BRT concept will be implementation of the Iwilei to Waikiki branch. This will demonstrate the effects of using priority lanes with advanced design buses to attract additional riders.

11. *The SDEIS does not address traffic overflow into neighborhood streets such as those in and around Lunalilo Elementary School or in the Sheridan block.*

    Response: The UH-Manoa Branch of the BRT will operate in mixed traffic on Kapiolani Boulevard between Atkinson Drive and University Avenue. Lunalilo Elementary School is located between the major streets of Kalakaua Avenue and McCully Street. No Kapiolani Boulevard lanes are proposed to be converted from general purpose to transit lanes in this segment, and the existing peak period contra-flow operation will be maintained. The proposed configuration is projected to have little difference on traffic patterns in this area compared to the No-Build or TSM Alternatives.

    With the Refined LPA, one lane in each direction on Kapiolani Boulevard will be converted for exclusive BRT use between Pensacola Street and Atkinson Drive. This reallocation will result in slightly more delay for motorists at intersections along this segment of Kapiolani Boulevard. At the same time, delay to BRT vehicles is projected to be significantly less than vehicles in the general-purpose lanes, resulting in increased transit ridership and increased person throughput along Kapiolani Boulevard. Any diversion of traffic is expected to shift to the King-Beretania corridor. The east-west roadways within the Sheridan block do not continue west of Pensacola Street, making them inconvenient alternatives to Kapiolani Boulevard. Additionally, these east-west roadways will probably serve more of a circulation function given the future development of Wal-Mart and Sam's Club in the "Super Block" area.

12. *What are the cumulative traffic impacts on the stable neighborhoods from Kapahulu to Sheridan?*

    Response: See response to comment #11.

13. *Does the City have plans to mitigate these traffic impacts in neighborhoods abutting the BRT corridors?*

    Response: See response to comment #11.

14. *Why has the City Administration not undertaken a pilot traffic project to tests for traffic impacts caused by lane closures?*

    Response: A test of closing a lane is not a test of what will happen with the BRT, it is only a test of what happens when a lane is closed which is something everyone knows the consequence of from when lanes are temporarily closed during utility construction.

    As is pointed out in Chapter 4 of the FEIS, over time there will be enough people diverted from autos to transit to offset the impact of converting lanes for priority use by buses. This diversion from autos will only happen once it is clear that the BRT installation is a permanent improvement, not part of some test.

    What is proposed with the first In-Town BRT branch between Iwilei and Waikiki will be a good test of the ability of BRT to attract new riders and the impacts of converting lanes in selected locations.

15. *Historic sites, landscapes, and view planes: No information is provided on direct and indirect impacts of the BRT Plan on these issues, so essential to maintaining a "Hawaiian Sense of Place."*

    Response: The potential impacts to historic sites, and landscapes or view planes are discussed in Sections 5.10 and 5.4, respectively in the MIS/DEIS and the FEIS.

16. *In summary, we question whether the current bus transportation system has been provided with the necessary financial support to demonstrate maximum efficiency.*

    Response: This is a comment on the present bus system not on the proposed project.

17. *Further, we ask why a BRT Plan is being proposed in the absence of a Honolulu traffic management plan.*

    Response: The Year 2025 Transportation for Oahu Plan (TOP 2025) provides an overall framework for future transportation projects. The Oahu Metropolitan Planning Organization (OMPO) Policy Committee approved the TOP 2025 in April 2001. The In-Town BRT (Project no. P-2b) and the Regional BRT (Project no. P-2a) are both included in this plan.

18. *We believe that the BRT Plan has not satisfied all the conditions that must be considered for funding under the new Starts planning and project development process. We believe that the Major Investment Study falls short of compliance with the New Start rules by not adequately evaluating all reasonable modal and multimodal alternatives and general alignment options for addressing the identified transportation needs for Honolulu.*

    Response: This is a statement of opinion. The FTA deemed that the MIS/DEIS adequately addressed all reasonable modal and multimodal alternatives when they reviewed it for release. Further the City Council deemed that it adequately addressed alternatives and that they were able to select a Locally Preferred Alternative.

19. *We believe that the locally preferred alternative is not supported by the community as professed by the City Administration*

    Response: Comment noted.

20. *How can the City proclaim such support for the BRT Plan when even the State has decided against participating in the financing of the project?*

    Response: See response to comment #7.

21. *We believe that there is a serious need to examine the stability and reliability of the capital financing and operating plan.*

    Response: In the FEIS, additional refinements were made to strengthen the viability of the financial plan. Adjustments included refinements to phasing, questioning and adjustments to revenue sources, and the comparison of assumptions against industry and regulatory standards. In particular, the ability of the City to finance the local portion of the capital costs was tested against the City's Debt and Financial Policies as passed by the City Council in April, 2002.

22. *We believe that the City Administration has failed to definitively demonstrate that the BRT Plan fulfills technical and financial capacity as required for FTA approval into final design.*

    Response: Comment noted. It is a statement of opinion. The technical and financial analyses have been accomplished with the FTA.

23. *We believe that the proposed BRT project should be deferred until the "true" financial costs of the system is made known to the taxpayer.*

    Response: The MIS/DEIS, SDEIS, and FEIS, Chapter 6 and Appendix E present the project's financial analysis and cash flow tables, respectively.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Public Comment Form

Primary Corridor Transportation Project
Island of Oahu, Hawaii

The information you provide on this form will help the C & C of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by November 6, 2000.

Name: Barbara J. Chung
Representing: myself, a bus rider
Address: P.O. Box 37863
Honolulu, HI 96837
residence: Waipahu

Please make any comments below:

I depend solely on the bus for transportation. I attended 3 Oahu Trans 2K meetings between 1998 and March 2000, and 2 other transportation meetings Oct. 6, and Oct. 12, 2000. During the 3 Oahu Trans 2K meetings in Waipahu and Kapolei we were almost exclusively presented with the Hub and Spoke system. Wes and Linda Fryszteckl from Seattle worked on this project. The BRT and other two systems (MEIS + ?) promoted in the Oct 6, and Oct. 12, meetings were hardly discussed. Hub and Spoke was the focus. In 2 of the 2K meetings participants supplied with maps, marked out desired bus routes. We weren't sure until the March 2000 meeting at August Ahrens Elem. School when Hub and Spoke would be implimented - "C"X-press would start May 2000 and A-Xpress would come to Waipahu in August 2000. I had no idea that the City and County were planning to start the BRT or other

two alternates at all and that Hub and Spoke was so temporary.

Regarding the T.V. news spots on NBC, ABC and Fox, stating that the BRT or bus only lanes project had already been approved in the 1998 through March 2000 Trans 2K meetings, I can state that I did not hear that, I was not aware of it and that the 2 recent City and County Oahu Transit Dept. meeting and the City Council Public Hearing made the BRT and alternates presentation the only focus. Testimony was heard from a variety of people on these ideas and the presentation. If the BRT had already been adopted why were you asking for testimony and why didn't you tell us in March that Hub and Spoke was so temporary and that BRT was the main goal. I know you have some of these meetings on video. You should have told us this in Oct. too, that BRT was already it.

According to Federal Law you can't make the decision without first presenting it to the public, explaining it and asking for testimony (which you did Oct 6, 12 and in several other meetings in October). I

don't think it is a 'done deal' but I think the City and County would like it to be because of the 63% Federal dollars that would come into the state. I think you are trying to rush the project through the approval stage without giving the businesses affected by these changes a fair opportunity to comment and that you have falsely stated that it was already approved ~~best~~ between 1998 and 2000 Oahu Trans 2K meetings.

My observation is that the Hub and Spoke system can work well and has. What I haven't been able to understand is how it could deteriorate so badly after working so well then recover again so quickly. When I have commented on this to <u>some</u> bus drivers and asked them about it they say nothing is wrong and have accused me of being a trouble maker and chronic complainer. I disagree, I give praise where praise is due and I need a good dependable bus service - so that when things don't run reasonably smoothly (notice I didn't say perfectly) I ask questions. The Transit supervisors I have talked to have been more honest

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and nicer.

Since the Oct 2000 meetings and my testimony about the A-Xpress, things have improved, very suddenly I might add. One day the A buses aren't on schedule and masses of people are at Waipahu stops waiting to get to Honolulu, the next day busses are on schedule and seen on the streets. I've kept an "A" bus journal since mid June 2000 and can give bus numbers, time, date, locations for various levels of service on request.

After the 2 transportation meetings in Oct 2000 on BRT and the 2 other alternatives I theorized that perhaps the Hub and Spoke system was set-up in part, not to work at times so that people would be dissatisfied and complain about it (as I have when it wasn't working) and ask for a new improved service → BRT. That might explain why it works (Hub and Spoke) in an on-again off-again way. I have used the old 47-51 bus service for several years and the Hub and Spoke system 4-7 days a week since it started. When you ride that often

you get to know the drivers, and how the system is working from many different angles.

When I saw some of the small business owners being interviewed on the 10-30-00 news casts worrying about how the 'bus only' lanes would affect their businesses in Kalihi - along Dillingham Blvd., I had to write and ask that you and the other City and County departments and agencies that are going to be making the decisions on the BRT program to try it out before deciding. Consult the merchants and allow them to voice their needs and concerns about how the new system will impact their customers access to shopping center entrances and parking. Many of these businesses are small, have loyal clientel and are located not only in Waikiki and Kaimuki but Kalihi as well. Don't approve this new system if it destroys the customer base of these older, well established and local businesses. Adapt the system to fit the small businesses along the way as well as the bus riders.

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I have been on BRT type transport systems in L.A., S.F. and in Europe - Geneva, Frankfurt, Vienna etc. and I favor them. However in Europe they put the center bus only lanes on wide boulevards. Hawaii streets are narrow in comparison. If you widen our streets it would be so time consuming, disruptive to business and traffic and costly. If you don't widen them and put in a 2bus only lane on a 4 lane street we might have constant traffic jams. If you start the project without testing it first you might have costly mid-project changes, long completion delays and a system that doesn't work. We need to find the appropriate transit system for Honolulu - sized to our streets.

One thought, the S.F. trolley cars (old fashioned, single cars that run on tracks to Fisherman's Wharf) travel in 2 lanes, 2 ways on wide streets e.g. near Union Square but use one lane on narrow streets. Autos turn left and right across tracks when safe. Trolley routes are designed

to serve passengers in a circular manner on narrow 1 bus only lanes.

To sum up:

① Please keep service of the Hub and Spoke system working at a high level whatever future plans and/or changes you are planning for the future.

② Please consult with small, medium and large businesses on their needs and concerns should you choose another bus system before approving or implementing that system. Treat all economic levels of communities alike. Test the system first with coning as several people testifying in Oct 2000 requested.

③ Don't force or manipulate people into accepting a hidden agenda. It won't work in the long run.

Service at the Waipahu Transit Center has markedly improved since Mid-October

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with the 'A', 40 and 42 bus lines. Please keep this level of service up and improve it if possible. Adding the 81 line during the day has helped alot too.

I favor the BRT if it can be adapted to Oahu and Honolulu streets so that autos can function on the same streets reasonably smoothly.

I have a list of trouble spots and good working spots I can give you if you are interested.

Thank you for taking the time to read this long paper.

Sincerely,
Barbara J. Chung

P.S. Another point that needs to be addressed is road work during the day at key intersections that causes long delays (not short delays).

I guess the main question I want to ask is: Is the Hub and Spoke not working in Waipahu in a consistent way because you want people to complaint about it so that you can further the BRT system? If the answer is yes, don't hold our Waipahu Hub + Spoke system hostage to BRT. Let it work well as I have seen it and in a timely manner so that residents can depend on getting to town using the bus schedules. Give A-xpress service every 20 min. the way you did when it began on 6-20-00. Now it is so uneven we never know when a bus is going to show up so that we can't chance it and have to budget say for e.g. a 1½ hr trip - 3 hrs to ensure that we get to town on time. This is how I am budgeting travel time from Waipahu to Downtown now inspite of the A-xpress and daytime 81. Two 81 trips have ended in freeway breakdowns where passengers debark on the freeway and are picked up

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8 6 out of 8

by another bus - on the freeway. One express driver of the A spent 40 minutes on the freeway from the Hickham entrance to the Middle St. off ramp while other A's and C's were passing us by. That trip took 1hour and 30 min from Leeku to Aala Park. How can I count on getting to a Dr's appointment if I don't allow 2-3 hours instead of 1½ hours if the system were working reasonably well.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05374R

November 13, 2002

Ms. Barbara J. Chung
P.O. Box 37863
Honolulu, Hawaii 96837

Dear Ms. Chung:

Subject: Primary Corridor Transportation Project

This responds to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). We are responding to your testimony at the October 5, 2000 Special Transportation Committee Meeting, your October 12, 2000 public hearing comment form, and your oral testimony at the October 12, 2000 public hearing regarding the MIS/DEIS:

1. *What I would like to see is the Transportation Department insert some of their employees into the Kalihi Transit Center to monitor the scheduling so that at least this thing is going to run more efficiently.*

   Response: There will be supervisory personnel at the Middle Street (Kalihi) Transit Center to see to it that it runs smoothly and efficiently.

2. *Because I go to Wahiawa several times a month to do shopping, I would like to see a spoke bus go from Waipahu to Wahiawa through the back Kunia road, maybe touching Mililani and then Village Park, Mililani, Wahiawa and then coming back.*

   Response: This is not a PCTP comment. It has been referred to DTS bus planners.

3. *Then you'd be left with Waikele. It would be really convenient to get one bus from Waikiki through downtown, maybe freeway to Makalapa Gate and then Pearlridge. Like the old 48. Going to Waikele. So the Japanese tourists don't have to transfer buses.*

   Response: This is not a PCTP comment. It has been referred to DTS bus planners.

4. *If the BRT had already been adopted why were you asking for testimony and why didn't you tell us in March that Hub and Spoke was so temporary and that BRT was the main goal.*

   Response: At the time of the comment (Public Hearing on October 12, 2000) the BRT had not been adopted as the Locally Preferred Alternative. There seems to have been some confusion with the public meetings on the initial conversion to a hub-and spoke system in Leeward Oahu, which is an immediate project, and the Primary Corridor Transportation Project, where the focus is on the longer term transit system.

5. *According to Federal Law you can't make the decision without first presenting it to the public, explaining it and asking for testimony (which you did Oct 6, 12 and in several other meetings in October).*

   Response: Comment noted.

6. *I think you are trying to rush the project through the approval stage without giving the businesses affected by these changes a fair opportunity to comment and that you have falsely stated that it was already approved between 1998 and 2000 Oahu Trans 2K meetings.*

   Response: The project's public involvement activities began in 1998 and continue today. Input from the public was critical in developing and evaluating alternative transportation solutions and no decision was made until the City Council selected the Locally Preferred Alternative on November 29, 2000.

   In addition to four rounds of Oahu Trans 2K public workshops attended by a total of 1,250 individuals, meetings were held with more than 100 governmental agencies, elected officials, businesses, and business, community and civic organizations. The public also had the opportunity to provide input on the various alternatives at a series of four City Council Transportation Committee Meetings prior to selection of the LPA.

   For the environmental review process, which is required under both State and federal regulations, the public has been given opportunities to comment on two occasions, the public review period of the MIS/DEIS, from September 8 to November 30, 2000, and the public review period for the SDEIS, from March 13 to May 7,2002. Following the environmental review process, public involvement will continue in many areas, such as the planning, design and construction of transit centers, transit stops, streetscapes, landscaping, subtraction power supply station location and design, aesthetic design of vehicles, ITS, and particulars of the ticketing system.

7. *My observation is that the Hub and Spoke system can work well and has. What I haven't been able to understand is how it could deteriorate so badly after working so well then recover again so quickly.*

   Response: It is not possible to respond to this comment since it is unclear when this lapse in the quality of service occurred and when it recovered.

8. *After the two transportation meetings in Oct. 2000 on BRT and the two other alternatives I theorized that perhaps the Hub and Spoke system was set-up in part, not to work at times so that people would be dissatisfied and complain about it (as I have when it wasn't working) and ask for a new improved service > BRT. That might explain why it works (Hub and Spoke) in an on-again off-again way.*

   Response: The Hub-and-Spoke system was not set up in a manner with the intent to promote dissatisfaction in riders in order to promote the BRT Alternative.

9. *When I saw some of the small business owners being interviewed on the 10:30 newscasts worrying about how the 'bus only' lanes would affect their businesses in Kalihi -- along Dillingham Blvd., I had to write and ask that you and the other City and County departments and agencies that are going to be making the decisions on the BRT program to try it out before deciding.*

   Response: The BRT alignment through Kalihi will be on Dillingham Boulevard, from Middle Street to Kaaahi Street with a Middle Street Transit Center, McNeill Street transit stop, Alakawa Transit Stop and Iwilei Transit Center. Along this alignment are many retail establishments that serve the Kalihi Community. Participation from residents and business owners in the community has been actively solicited throughout project planning. A Kalihi Working Group was established comprised of Kalihi businesses, elected officials, and representatives from civic organizations to provide input and feedback to the engineering teams as they refined the details of the In-Town BRT for the FEIS. Substantial time was spent in the Kalihi Working Group developing alternative access to area businesses and establishing approaches for maintaining access to businesses during construction.

10. *Consult the merchants and allow them to voice their needs and concerns about how the new system will impact their customers access to shopping center entrances and parking. Many of these businesses are small, have loyal clientele and are located not only in Waikiki and Kalmuki but Kalihi as well, Don't approve this new system if it destroys the customer base of these older, well established and local businesses. Adapt the system to fit the small businesses along the way as well as the bus riders.*

    Response: Six community Working Groups were established based on geographic area: Pearl City/Aiea, Aliamanu/Salt Lake, Kalihi, Downtown/Kakaeko, Mid-Town/University and Waikiki. The Working Groups were established to provide an opportunity for community groups, business representatives and other organizations to work out concerns directly with the project staff, subsequent to the MIS/DEIS being released and before the PE/FEIS process began. They provided a constructive forum in the designated geographic areas along the corridor, where specific opportunities were discussed simultaneously providing a greater in-depth understanding about BRT and what it means to the community. Community concerns were discussed in these meetings. For example, the Kalihi Working Group discussed the BRT alignment through Kalihi on Dillingham Boulevard. Along this alignment are many retail establishments that serve the Kalihi Community. Participation from residents and business owners in the community has been actively solicited throughout project planning. A Kalihi Working Group was established comprised of Kalihi businesses, elected officials, and representatives from civic organizations to provide input and feedback to the engineering teams as they refined the details of the In-Town BRT for the FEIS. Substantial time was spent in the Kalihi Working Group developing alternative access to area businesses and establishing approaches for maintaining access to businesses during construction.

11. *I have been on BRT type transport systems in L.A., S.F. and in Europe -- Geneva, Frankfurt, Vienna, etc. and I favor them. However in Europe they put the center bus only lanes on wide boulevards. Hawaii streets are narrow in comparison. If you widen our streets it would be so time consuming, disruptive to business and traffic and costly. If you don't widen them and put in a 2 bus only lane on a 4 lane street we might have constant traffic jams.*

    Response: The alignment and elements of the Refined LPA will be predominately within the existing roadway right-of-way in order to minimize right-of-way takes. The goal of the Refined LPA is to provide an attractive, affordable, dependable transportation option to the private automobile. The BRT Alternative increases the people carrying capacity throughout the Primary Corridor and preserves and improves the quality of life of Oahu's residents by improving transportation linkages within the Primary Corridor and between Kapolei and the Urban Core without the major impacts that street widening would produce.

12. *If you start the project without testing it first you might have costly mid-project changes, long completion delays and a system that doesn't work. We need to find the appropriate transit system for Honolulu – sized to our streets.*

    Response: The proposed BRT system is based on ridership experience of the City's existing bus services, including the recently implemented CityExpress! bus services that use much of the proposed BRT alignment, forecasts of BRT and local bus ridership using regional travel forecasting models, and input received at hundreds of public outreach meetings. A test without all features of the BRT system in place (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-floor vehicles with level boarding through multiple doors and prepayment of fares) would be misleading and not a true test of the system. For example, the project proposes to completely reconstruct Dillinghem Boulevard through the Kalihi area to provide significant pedestrian amenities to facilitate access to BRT stations, as well as building new BRT stations and exclusive lanes in the center of the roadway. Without such major reconstruction, it would not be possible to provide the substantial time savings for transit riders through this corridor that would be offered by the Refined LPA. Most importantly, potential new riders would not likely perceive the demonstration service as permanent and would not be induced to change their travel mode.

13. *Please keep service of the Hub and Spoke system working at a high level whatever future plans and/or changes you are planning for the future.*

    Response: The BRT is only one element of the transit plan for the Primary Transportation Corridor. The plan also includes conversion of the bus system to a hub-and-spoke network. The hub-and spoke network will consist of new local circulator routes, as well as continuation of many existing line haul and express routes. Many existing bus routes will be re-routed to intersect with the BRT at or near the proposed BRT stops. The goal is to have an integrated network of transit services that provide convenient and cost-effective options for potential users.

14. *Please consult with small, medium and large businesses on their needs and concerns should you choose another bus system before approving or implementing that system.*

    Response: Participation from residents and business owners in the community has been actively solicited throughout project planning. For more information about the project's public involvement program please refer to Appendix A of the FEIS. The latest outreach program was an organization of community working groups comprised of area businesses, elected officials, and neighborhood and civic organizations. The working group format provided an additional forum for area businesses to raise their concerns and for refinements to be incorporated into the project.

15. *Treat all economic levels of communities alike.*

    Response: The Refined LPA treats all economic levels of communities alike.

16. *Test the system first with zoning as several people testifying in Oct. 2000 requested.*

    Response: See response to comment #12.

17. *Don't force or manipulate people into accepting a hidden agenda. It won't work in the long run.*

    Response: There is no hidden agenda.

18. *I favor the BRT if it can be adapted to Oahu and Honolulu streets so that autos can function on the same streets reasonably smoothly.*

    Response: The Refined LPA has been developed so that autos will be able to operate on the same streets as the BRT with less congestion than with the No-Build and TSM Alternatives.

19. *Another point that needs to be addressed is road work during the day at key intersections that cause long delays (not short delays).*

    Response: The provisions to accommodate maintenance and construction projects within the BRT corridor will be similar to how construction projects within a lane are handled currently – the traffic will be detoured around construction/maintenance area. The technologies under consideration, the Embedded Plate, and the Hybrid-Electric propulsion systems both provide the flexibility to operate outside of the designated BRT lanes.

20. *Is the Hub and Spoke not working in Waipahu in a consistent way because you want people to complain about it so that you can further the BRT system?*

    Response: Since the initial conversion to a hub-and-spoke operation in Leeward Oahu, refinements have been made to correct the problems first encountered.

21. *If the BRT had already been adopted why were you asking for testimony and why didn't you tell us in March that Hub and Spoke was so temporary and that BRT was the main goal.*

    Response: At the time of the comment (Public Hearing on October 12, 2000) the BRT Alternative had not been adopted as the Locally Preferred Alternative. There seems to have been some confusion with the public meetings on the initial conversion to a hub-and spoke system in Leeward Oahu, which is an immediate project, and the Primary Corridor Transportation Project, the focus is on the longer term transit system.

22. *According to Federal Law you can't make the decision without first presenting it to the public, explaining it and asking for testimony (which you did Oct 6, 12 and in several other meetings in October.*

    Response: Comment noted. We concur.

23. *And it says here in the Leeward Oahu Community Transit Guide that timed connections at the hubs will make transfers fast and easy between community circulators, local and limited-stop express routes. Well, that's not happing. What you saw in this presentation was what's on paper. What's actually happening to people in Waipahu is a lot of missed connections and bus drivers who, when they see people running to catch the express buses, like the A Express from the circulator, they will not wait.*

    Response: Based on comments like this, improvements have been made to Leeward Oahu hub-and spoke operations.

24. *I have some recommendations that I just, you know, kind of put out. Allow more time for public comment. Two to three minutes is not enough time for complex issues that play such an important role in bus passengers' lives. You are mandated to hold public hearings. Please take the time to hear us and let other passengers from other areas hear us.*

Response: Ms. Chung was granted more time to speak.

25. *No training bus drivers on the C or A routes until it is working well and most problems have been solved. Give us your best bus drivers in the initial period when it's getting established, the nicest, most intelligent, the strongest and the most physically hardy, during – for, say, three months. Hopefully, the best express drivers and supervisors at KTC, Kalihi Transit Center.*

Response: Duly noted.

26. *No roadwork on routes during rush hours or during the day at busy intersections on the A or C routes unless it is temporary emergency. Have road repairs done at night, Downtown, Hotel, King Street, River Street, King, in Chinatown, Richards Street, Kepiolani Boulevard, beginning at Kepiolani end through and past University.*

Response: Construction scheduling may include nighttime construction in non-residential areas.

27. *Insert overseers for the transportation department capable of doing the work of a scheduler or a supervisor who has analysis experience at the KTA – at the Kalihi Transit Center. In other words, the transportation department at 711 Kepiolani should be really on the spot at the Kalihi Transit Center.*

Response: See response to comment #1.

28. *Give us a new circulator running from the Waipahu Transit Center to Dalei, up Kunia Road to Village Park, stopping along Kunia Road along the north part of the road and going through to Mililani on the west side, back on Kunia to Wahiawa, and then back to Waipahu.*

Response: Specific bus routings will be developed as part of the hub-and-spoke implementation process.

29. *Then run a bus from Waikiki to Waikele for tourists and residents.*

Response: Specific bus routings will be developed as part of the hub-and-spoke implementation process.

30. *Waikiki to Ala Moana Center, Downtown, Dillingham, freeway to Makalapa Gate, Arizona Memorial, Stadium, Peerridge, Pearl City, Waipahu Transit Center to Waikele, Kam Highway, LCC and then back to Waikiki.*

Response: Specific bus routings will be developed as part of the hub-and-spoke implementation process.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00546

November 13, 2002

Mr. John Ciesla
98-099 Uao Place, PH-10
Aiea, Hawaii 96701

Dear Mr. Ciesla:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 19, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Dreft Environmental Impact Statement (MIS/DEIS).

1. *Placing the bus turnaround facility at the Kam Drive-In property would be detrimental to all of our residents and condominium properties within a four-block radius. The noise, fumes, increased traffic and devaluation of our property would cause many of our owners and tenants to sell and move to other areas of the island. We currently tolerate high noise levels during both rush hours and the bus facility would stress their problems at least 16 hours a day.*

   Response: The former Kamehameha Drive-In site is no longer being considered as a transit center.

2. *The economy has already decreased our property value and this would contribute to devaluation even more. The hub and spoke system is a great plan where we definitely need something like that. However, this particular hub affects almost 1,000 residential units in a four-block radius. Ours being 300, the property across the street near the church next to Kam has at least another 300, the building behind us has another 350.*

   Response: The former Kamehameha Drive-In site is no longer being considered as a transit center.

3. *The residents of Lele Pono as well as myself are opposed to the Kam Drive-In facility and hope you will have the compassion to reevaluate and reconsider the current position.*

   Response: The former Kamehameha Drive-In site is no longer being considered as a transit center.

4. *The site sounds like a good spot but to serve the Aiea and Pearl City, the commercial area boarded by Moanalua Road, Kaahumanu and Oihana Place, the old Timbertown property, would be less detrimental to residential units and is still close to businesses and more homes without creating the aforementioned problems. It's all commercial and its residences are far enough away not to be affected by all the things I mentioned.*

Response: The former Timber Town property was evaluated as a potential transit center site, but was eliminated from consideration for similer reasons the Kamehameha Drive-In site was eliminated from consideretion.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separale cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

April 20, 2002

Name: Cole

Representing:

Address: & 1778 Ala Moana Blvd. #3713
Hon. Hi

Please make any comments below:

Roads are gridlock now - and even look at certain times of the day - this will make things worse as people will not leave their cars home & take public transport. Please don't make things worse!

Brian

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00547

November 13, 2002

Mr. Victor & Ms. Marie Cole
1778 Ala Moana Blvd. #3713
Honolulu, Hawaii 96815

Dear Mr. And Ms. Cole:

Subject: Primary Corridor Transportation Project

This is in response to your written comment at the April 20, 2002 public hearing regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

> *Roads are gridlock now – and very bad at certain times of the day – this will make things worst as people will not leave their cars home and take public transport. Please don't make things worse.*
>
> Response: It is not the conversion of lanes that will result in congestion. The congestion for motorists will be there with or without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined Locally Preferred Alternative (LPA) than it would be with the No-Build or Transportation System Management Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

April 19, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
Municipal Building, Third Floor
650 S. King Street
Honolulu, Hawaii 96813

Dear Ms. Soon,

I'm writing to you in support of the Bus Rapid Transit System. Any improvement to our public transportation system is very much appreciated and I want to thank you and the administration for proposing a way to enhance our bus system.

My family and I have all used The Bus at one time or another. I remember as a young girl in Ewa Beach how my mother used to catch the bus with my infant brother to drop off at the sitters before heading off to work…or when we all had to take the bus to school during my elementary and high school years…and although I dormed during my first two years of college, my friends and I relied on the bus system for going places, to and from home, to and from work, to and from places where I volunteered after school. Even now that I have a car, I still rely on the bus when it needs maintenance and for shorter trips, and my children commute on the bus. My mother and aunts who are much older now in their golden years still depend on The Bus to get them places.

In support of this project, there are a few things I would ask for…a wish list if you would. 1. Accessibility of The Bus on main routes and into residential areas, 2. Safety/Security, 3. Timeliness/Efficiency, 4. Comfort, 5. Cost/Affordable.

Again, I want to sincerely thank you for your concern regarding our public transportation system that keeps everything moving. For every motorist that may feel the traffic jams during construction I say—I'm one too—we need to look at the bigger picture and the positive outcome…eventually less traffic.

Very truly yours,

Yolanda Coloma
876 Curtis Street, #2308
Honolulu, Hawaii 96813

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00548

November 13, 2002

Ms. Yolanda Coloma
876 Curtis Street, #2308
Honolulu, Hawaii 96813

Dear Ms. Coloma:

Subject: Primary Corridor Transportation Project

This is in response to your April 19, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm writing to you in support of the Bus Rapid Transit System. Any improvement to our public transportation system is very much appreciated and I want to thank you and the administration for proposing a way to enhance our bus system.*

   Response: Thank you for supporting the project.

2. *My family and I have all used The Bus at one time or another. I remember as a young girl in Ewa Beach how my mother used to catch the bus with my infant brother to drop off at the sitters before heading off to work ... or when we all had to take the bus to school during my elementary and high school yeers ... and although I dormed during my first two years of college, my friends and I relied on the bus system for going places, to and from home, to and from work, to and from places where I volunteered after school. Even now that I have a car, I still rely on the bus when it needs maintenance and for shorter trips, and my children commute on the bus. My mother and aunts who are much older now in their golden years still depend on TheBus to get them places.*

   Response: We appreciate you sharing your experiences with the public transit system.

3. *In support of this project, there are a few things I would ask for ... a wish list if you would. 1. Accessibility of TheBus on main routes and into residential areas, 2. Safety/Security, 3. Timeliness/Efficiency, 4. Comfort, 5. Cost/Affordable.*

   Response: Comment noted. No response required.

4. *Again, I want to sincerely thank you for your concern regarding our public trensportation system that keeps everything moving. For every motorist that may feel the traffic jams during construction I say – I'm one too – we need to look at the bigger picture and the positive outcome ... eventually less traffic.*

   Response: Again, thank you for supporting Honolulu's public transportation system.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00549

November 13, 2002

Mr. Bruce Coppa
c/o Pacific Resource Partnership
1001 Bishop Street, Pacific Tower
Suite 1501
Honolulu, Hawaii 96813

Dear Mr. Coppa:

Subject: Primary Corridor Transportation Project

This responds to your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). We are responding to your testimony at the November 14, 2000 Special Transportation Committee Meeting supporting the In-Town BRT as the Locally Preferred Alternative (LPA). Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00550

November 13, 2002

Mr. Joseph Cordero
1616 Liholiho Street
Honolulu, Hawaii 96822

Dear Mr. Cordero:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I speak maybe in a sansa for parsons with disabilities. I agrea with tha gentleman who was about tha second spaakar on today, who talked about looking down tha corridor a little bit. And that goes with, becausa Hawaii is such a baautiful place to liva, and paopla liva longer here, wa hava to think about our senior citizans.*

   Response: Comment noted. No response required.

2. *I happan to know that Les Keiter, who is a famous sports announcer, is now dependant on public transportation whan ha goas to work and performs his dutias. And so a lot of sanior citizans that will ba living much longar will not ba abla to use their vahicles in the future. So we want to think about tham, as wall as persons with disabilitias, mothers who hava to go shopping, studants who are not old enough to purchasa vehicles. So we have to think about tha large numbar of people who do usa diffarent facilitias, school, work, commercial areas, and we have to make it so that they too have accass.*

   Response: We appreciate your insight into the service that public transportation provides to all of Honolulu's residents.

3. *Because if we limit transportation only to car users, that means the other people have to stay home pretty much with all the cars on the road end being unable to get to and from where they're going with the buses. So we want to make sure that we think about our senior citizens, persons with disabilities, and mothers with children who maybe don't have the kinds of money to be able to purchase vehicles and use the highways. So we want to look down the line, and we ought to think about that.*

   Response: Thank you for your support of the project.

4. *One last thing I do mention, that, in just one year alone, Hawaii placed 250,000 extra vehicles on the roads. So we have to think for the future as well.*

   Response: Comment noted. No response required.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00551

November 13, 2002

Mr. Roger Couture
2550 Kuhio Avenue #2402
Honolulu, Hawaii 96815

Dear Mr. Couture:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *When we first started coming here several yeers ago, we noticed that – a lack of need for our needs was we would not need a car. When we did move here, we sold our cars back on the mainland, and leaving us the option to be able to rent if need or to purchase if need. And in the few years that we have lived here, we haven't had to do neither. Fortunately, for the quality of the bus system that we do have presently, it has satisfied our needs. I still leeve the option open, too, that, in the future, that e cer would be nacessary for us. But for the location that we're situated in, in Waikiki down by the zoo, the bus system more than meets our needs presently.*

   Response: Thank you for sharing your reasons for using Honolulu's public transit system.

2. *I realize that, in the future, that improvements would have to be mada. I'm not very knowledgeable about that. In fact, not knowledgeable at all. But all I can talk about is the needs we have, which are presently being met quite satisfactorily.*

   Response: We appreciate you taking the time to come to the public hearing and share your experiences.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

For the city and county to spend so much money to subsidize the 10% ridership certainly appears to be irresponsible. We, as taxpayers, may be committing ourselves to NEARLY a billion dollar expense, plus a hefty subsidy for bus riders. The current bus transportation from Waikiki to downtown is very satisfactory and does not rob us of traffic lanes. The new rapid transit will not help tourism. We should instead concentrate on removing all uninsured automobiles from the streets and highways. This is estimated to be 20 to 25 percent of autos on the roadways. It would reduce traffic, make driving safer, and reduce the cost of our auto insurance. The voters will remember those who support this ridiculous idea.

Mary Cowing
2240 Kuhio Ave., Apt. #3506
Honolulu, HI 96815
(808) 922-8520

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00552

November 13, 2002

Ms. Mary Cowing
2240 Kuhio Avenue
Apartment 3506
Honolulu, Hawaii 96815

Dear Ms. Cowing:

Subject: Primary Corridor Transportation Project

This is in response to your written testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *For the city and county to spend so much money to subsidize the 10% ridership certainly appears to be irresponsible.*

   Response: Transit systems throughout the nation are subsidized. The reasons for doing so include the recognition that many members of the community are either too young, too old, too poor, or are physically unable to drive a car, and are therefore dependent on public transportation for their mobility. Additionally, it is viewed as more cost effective to spend public funds subsidizing transit than on building new or widened roads to accommodate these same people in automobiles.

   The annual per capita subsidy will vary slightly from year to year as the Refined LPA is implemented, but in current dollars (i.e. without the effects of inflation) the subsidy will be about the same as today. This is because the system will grow in direct proportion to the growth in population.

2. *We, as taxpayers, may be committing ourselves to nearly a billion dollar expense, plus a hefty subsidy for bus riders.*

   Response: Comment noted. No response required.

3. *The current bus transportation from Waikiki to downtown is very satisfactory and does not rob us of traffic lanes.*

   Response: The Iwilei –Waikiki In-Town BRT branch will not follow the same routing as present bus routes and will connect with some destinations not presently served by buses. It will not rob motorists of traffic lanes, in fact new lanes will be added along sections of Ala Moana Boulevard and Kalia Road.

4. *The new rapid transit will not help tourism.*

   Response: As the MIS/DEIS, SDEIS, and FEIS Chapter 1 state, the purpose of the project is to increase the people-carrying capacity of the transportation system; support desired development patterns, improve the transportation linkage between Kapolei and Honolulu's Urban Core, and to improve the transportation linkages between the Primary Urban Center communities. As such the BRT system is designed to complement the private transportation services which serve visitors, not compete with them. Many of the proposed improvements in the Refined LPA will benefit tourists by making Waikiki more environmentally and pedestrian friendly.

5. *We should instead concentrate on removing all uninsured automobiles from the streets and highways. This is estimated to be 20 to 25 percent of autos on the roadways. It would reduce traffic, make driving safer, and reduce the cost of our auto insurance.*

   Response: Comment noted. It is beyond the scope of this project to address uninsured automobiles.

6. *The voters will remember those who support this ridiculous idea.*

   Response: Comment noted. No response required.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

City and County of Honolulu
Department of Transportation Services
Cheryl D. Soon - Director
711 Kapiolani Blvd. Suite 1200
Honolulu, HI 96813

November 4, 2000

RE: DEIS – PRIMARY CORRIDOR TRANSPORTATION PROJECT

Dear Ms. Soon and Oahu Transportation Planners;

I would appreciate your addressing the following concerns in the forthcoming EIS.

1. Economic justice and its mitigation are not fully or fairly investigated in the DEIS, especially in regards to the low income, large minority community of Kalihi-Palama. The DEIS's suggestion that such disadvantaged neighboring residents will be fortunate to have better transit opportunities, ignores the many negative impacts the community will suffer and that the motivating purpose of the project is the movement of Leeward, Ewa, and Mililani populations into the PUC. The community character will initially be shaken by major transit construction, then permanently altered as a major transit corridor displaces local and neighborhood commerce with development orientated at a transit corridor.

2. The DEIS does not fully address the existing flows of neighborhood vehicle traffic and how they will be negatively impacted by the loss of general use traffic lanes. Many local, non-transit trips that flow on Dillingham or across Dillingham will face considerable time or rerouting impacts.

3. The Kalihi-Palama region has many substandard streets without sidewalks or drainage that continue to be ignored by government funding, however the same government agencies are more than willing to take major portions one of the few adequate thoroughfares (Dillingham Blvd) in order to provide commute benefits to Leeward Oahu.

4. There are many signal controlled intersections within the Kalihi-Palama region that do not have advance turn greens or turn lanes. An EIS should require such basic traffic improvements to the existing region prior to the traffic dislocations that will result from the DEIS proposal.

5. The DEIS does not develop specific criterion to measure the success or failure of the proposals, or what actions should be taken should the proposals fail to measure up to a successful standard.

6. The DEIS does not consider a single, reversible BRT project that would only remove 1 lane from existing streets. Such a reversible model would give exclusive lane priority only during rush hours in the high demand direction. At all other times, no lane exclusivity is needed as the DEIS statistical model only projects rush hour congestion.

Thank you for addressing the above issues.

Respectfully,

Bill Craddick

Bill Craddick
1556 Puolani Street
Honolulu, HI 96819

cc. Governor, State of Hawaii
Parsons, Brinckerhoff, Quade, and Douglas, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05415R

November 13, 2002

Mr. Bill Craddick
1556 Puolani Street
Honolulu, Hawaii 96819

Dear Mr. Craddick:

Subject: Primary Corridor Transportation Project

This is in response to your November 4, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Economic justice and its mitigation are not fully or fairly investigated in the DEIS, especially in regards to the low income, large minority community of Kalihi-Palama. The DEIS's suggestion that such disadvantaged neighboring residents will be fortunate to have better transit opportunities, ignores the many negative impacts the community will suffer and the motivating purpose of the project is the movement of Leeward, Ewa, and Mililani populations into the PUC. The community character will initially be shaken by major transit construction, then permanently altered as a major transit corridor displaces local and neighborhood commerce with development oriented at a transit corridor.*

   Response: The Final Environmental Impact Statement (FEIS) includes discussion of whether the project will cause disproportionately high and adverse affects on minority and low-income populations' health or environment in accordance with the Executive Order on Environmental Justice. Although the project would improve public transit service for Leeward and Central Oahu communities, it would also substantially improve transit service for those communities within the urban core such as Kalihi-Palama. Although the community will need to endure construction phase impacts, once completed the In-Town BRT will have substantially upgraded and beautified Dillingham Boulevard as a community serving street rather than it remaining as a commuter route which it is today during rush hours.

2. *The DEIS does not fully address the existing flows of neighborhood vehicle traffic and how they will be negatively impacted by the loss of general use traffic lanes. Many local, non-transit trips that flow on Dillingham or across Dillingham will face considerable time or rerouting impacts.*

Response: The FEIS contains a traffic analysis of the Dillingham Boulevard corridor. First, the analysis shows that the enhanced transit system provided by the Refined LPA would attract more transit riders, resulting in a reduction of vehicular demand within the corridor. This reduction, along with other anticipated transportation improvements within the corridor, would allow Dillingham Boulevard to have comparable traffic levels of operation as the No Build Alternative. At the same time, the ability to move people along the Dillingham Boulevard corridor would increase from 2,890 persons per hour to 8,140 persons per hour.

3. *The Kalihi-Palama region has many substandard streets without sidewalks or drainage that continue to be ignored by government funding, however the same government agencies are more than willing to take major portions one of the few adequate thoroughfares (Dillinghem Blvd.) in order to provide commute benefits to Leeward Oahu.*

Response: As part of the Refined LPA Dillingham Boulevard will be totally reconstructed with new pavement, sidewalks and landscaping. The BRT will be as much a benefit for Kalihi-Palama residents as for Leeward Oahu residents. It will give residents of Kalihi-Palama faster, more reliable public transit service to destinations throughout the island.

4. *There are many signal controlled intersections within the Kalihi-Palama region that do not have advance turn greens or turn lanes. An EIS should require such basic traffic improvements to the existing region prior to the traffic dislocations that will result from the DEIS proposal.*

Response: Traffic signal improvements along Dillingham Boulevard and several adjacent streets are included as part of the project.

5. *The DEIS does not develop specific criteria to measure the success or failure of the proposals, or what actions should be taken should the proposals fail to measure up to a successful standard.*

Response: The Refined LPA will be implemented as a series of smaller projects over a 15-year period. At each step of the way there will be ample opportunity to evaluate the performance to date and whether any modifications to the plan are needed. This flexibility in implementation is one of the advantages of a bus based system compared to a rail system.

6. *The DEIS does not consider a single, reversible BRT project that would only remove one lane from existing streets. Such a reversible model would give exclusive lane priority only during rush hours in the high demand direction. At all other times, no lane exclusivity is needed as the DEIS statistical model only projects rush hour congestion.*

Response: Reversible lanes are only possible where there is a directional imbalance during the hours of use. The existing and proposed zipper lanes on H-1 are examples of where this concept has been integrated into the BRT project. Dillingham Boulevard and Kapiolani Boulevard are the only In-Town BRT streets where a reversible lane operation might be possible. The reversible lane operation on Kapiolani Boulevard is proposed to

be retained after implementation of the BRT from Atkinson Drive eastward to King Street. The BRT would operate in mixed traffic through this section. A reversible lane operation on Dillingham Boulevard was looked at and rejected because: 1. Using traffic cones to delineate a reversible, exclusive BRT lane during the peak hours would result in time savings for the BRT in the dominant direction of travel, but would not provide travel time savings for the BRT during the rest of the day; 2. U-turns at intersections and left-turns across the coned BRT lane would not be allowed due to safety conflicts. This would significantly affect access to businesses during times when the coning is in place; 3. There would be significant operational delays to traffic on Dillingham Boulevard during the transitions from non-peak to peak conditions and back again. These transitions would occur in the morning and afternoon; and 4. Median BRT passenger platforms would pose safety hazards and/or require extra roadway widening with a reversible BRT lane.

We will send you a CD-ROM copy of the FEIS under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Ms. C. C. Curry
91-1476 Renton Road, #10
Ewa, Hawaii 96706

Dear Ms. Curry:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the September 25, 2000 Special Transportation Committee Meeting regarding your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

I support this with reservations for specific and immediate modifications. The modifications involve four different categories. Both the BRT, express, park and rides, pedestrian suggestions, Handi-Van compliance with the federal litigation is hanging over right now and the suggested partnership with City County and the State with the ferry. And I have illustrations of how we can use the existing resources right now, immediately, to a better advantage.

Response: Your comment has been duly noted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00553

November 13, 2002

Mr. Mike Dahilig
95-1081 Milia Street
Mililani, Hawaii 96789

Dear Mr. Dahilig:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *My name is Mike Dahilig, and I'm currently a geology and geophysics major at the University of Hawaii at Manoa. I am the president elect of the Associated Students of the University of Hawaii next year. But I am here to express and represent only my personal opinions on the Bus Rapid Transit project. I have been commuting from Mililani to the Downtown area since my kindergarten days at Punahou. So if I may, I would consider myself somewhat of a knowledgeable commuter. I'm here today to speak in support of the Bus Rapid Transit system.*

   Response: Thank you for taking the time to attend the public hearing and for supporting the project.

2. *I am concerned about the long-term future of Honolulu. Our traffic problems are obviously not going to get any better. We are in need of a solution that is imaginative, innovative and in concert with the unique aesthetics of our city. We need a transportation solution that will improve the overall quality of life for all of us. We need an alternative that can bring us from place to place, that is convenient, easier, fast and predictable. And I feel that BRT can provide that.*

   Response: This is a statement of support. No response required.

3. *Young people are acutely aware that fossil fuels are a finite resource, so we need to be energy-efficient. Pollution by harmful emissions is also another concern. We need an alternative that is environmentally friendly and saves money and time.*

   Response: Comment noted.

4. *Many progressive modern cities have committed to rapid transit for a reason. It is simply common sense. Unless we are in complete denial, growth happens. So we need to look and think long-term to be ready. If we tell our young people that we restrict and stifle reasonable growth in Honolulu, many more young people will seek their fortunes on the mainland instead of staying home. I humbly urge the City and County of Honolulu to continue moving forward with the Bus Rapid Transit project.*

   Response: This is a statement of support. No response required.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

TESTIMONY
Of
Beadie Kanahele Dawson
Before the City Council Committee on Transportation

Thursday, October 26, 2000
6:30 PM

Good evening Committee Chair Bainum and members of the Transportation Committee.

My name is Beadie Kanahele Dawson. I am Chief Executive Officer and General Counsel for two small businesses located in Honolulu: Dawson Group, Inc., and Dawson International, Inc. I am testifying this evening in support of the Bus Rapid Transit, or BRT alternative.

Hawaii's two greatest enemies are: too many automobiles and too much urban sprawl. In Honolulu, these two monsters have reached crisis proportions. We've argued about solutions for years while the problem has become steadily worse. Doing nothing is not an option.

As a businessperson, I believe that we are spending far too much time in our automobiles. People are wasting too much time in their cars. Lost time means lost productivity, and in business, time is money. How can employees arrive fresh and ready to work if they have to wake up at 5 AM to fight the morning rush our traffic to get to work by eight? And then repeat the fight every afternoon?

I am also concerned about the toll commuting takes on our employees and our workforce. It is no secret that some of our employees and countless others spend as much as three hours each day driving to and from work in town. Time lost in traffic is valuable time that can be spent with our families and loved ones. We need to wean ourselves off of the automobile, through better options in public transportation. The BRT is the best way to accomplish this, because it is the most comprehensive of the three alternatives, and provides an attractive, efficient and viable alternative to the private automobile.

Second, I have great concern for our environment and our need to protect it. The costs associated with the private automobile are huge. We devote too much land and resources to our automobile dependence. We cannot continue to build more highways or roads, or double deck our freeways. Roadways and parking lots are expensive to build, and take up valuable land that could be used as parks and green-space. Automobiles pollute the air and water. The BRT alternative will benefit the environment by reducing gasoline consumption and its associated pollutants. A high capacity in-town bus rapid transit system powered by an electric or hybrid motor would be cleaner running than cars, and produce less air pollution or noise.

Third, the BRT alternative will shape orderly development in Honolulu and minimize urban sprawl. It will focus growth within the primary urban center and the second city of

Kapolei. This will help protect what little rural area we have left from further growth, help to preserve open space and help "keep the country country".

Clearly, the BRT alternative will benefit our community and I urge the Council to endorse it. These improvements to our public transportation system are long overdue. Thank you for allowing me to testify this evening.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00554

November 13, 2002

Ms. Beadie Kanahele Dawson
Chief Executive Officer and General Counsel
C/o The Dawson Group, Inc.
900 Fort Street Mall, Suite 810
Honolulu, Hawaii 96813

Dear Ms. Dawson:

Subject: Primary Corridor Transportation Project

This is in response to your October 26, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I am testifying this evening in support of the Bus Rapid Transit, or BRT alternative.*

   Response: Comment noted. Thank you for supporting the project.

2. *I am also concerned about the toll commuting takes on our employees and our workforce. It is no secret that some of our employees and countless others spend as much as three hours each day driving to and from work in town. Time lost in traffic is valuable time that can be spent with our families and loved ones. We need to wean ourselves off of the automobile, through better options in public transportation. The BRT is the best way to accomplish this, because it is the most comprehensive of the three alternatives, and provides an attractive, efficient and viable alternative to the private automobile.*

   Response: Comment noted.

3. *Second, I have great concern for our environment and our need to protect it. The costs associated with the private automobile are huge. We devote too much land and resources to our automobile dependence. We cannot continue to build more highways or roads, or double deck our freeways. Roadways and parking lots are expensive to build, and take up valuable land that could be used as parks and green-space. Automobiles pollute the air and water. The BRT alternative will benefit the environment by reducing gasoline consumption and its associated pollutants. A high capacity in-town bus rapid transit system powered by an electric or hybrid motor would be cleaner running than cars, and produce less air pollution or noise.*

   Response: Comment noted.

4. *Third, the BRT alternative will shape orderly development in Honolulu and minimize urban sprawl. It will focus growth within the primary urban center and the second city of Kapolei. This will help protect what little rural area we have left from further growth, help to preserve open space and help "keep the country country".*

   Response: Comment noted. The DTS concurs with this statement.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00555

November 13, 2002

Ms. Eve DeCoursey
9630-A 18th Avenue
Honolulu, Hawaii 96816

Dear Ms. DeCoursey:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm a resident of Keimuki. I am a 22-year resident of Honolulu. As a runner, daily dog walker motorist, occasional bus rider, and avid cyclist – in fact, I'm such an avid bicyclist that I am a Hawaii state champion. I was invited to the national championship in 1985. I mention these 70,000 miles that I've ridden on Oahu streets and roads because it's relevent to what I'm going to say. Over the 22 years that I've put all these miles on the bike on the roads, I've noticed many things. You notice a lot when you're out there on a bike and not surrounded by a lot of steel. I've noticed a great increase in vehicles, and it's amazing how many of them are single occupancy vehicles. Unfortunately, as I've watched the traffic increase, I've watched the aloha deteriorate.*

   Response: Comment noted.

2. *I became so fascinated with the subject of mobility and access that I served for 15 years as the executive director for the Hawaii Bicycling League. And in this capacity, I attended several sustainable community conferences on the mainland. It is a fact that the first and most important step to bringing our communities to the point of being sustainable is to provide transportation choices. And I'd like to commend the City and County of Honolulu for taking this step to prevent potential traffic disaster.*

   Response: Comment noted.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00556

November 13, 2002

Mr. John Dell
1521 Palapala Place
Honolulu, Hawaii 96817

Dear Mr. Dell:

Subject: Primary Corridor Transportation Project

This is a combined response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding to your comments in two Parts. Part A responds to the comment you made regarding the MIS/DEIS at the November 14, 2000 Transportation Committee meeting and Part B responds to the oral comments you made at the SDEIS April 20, 2002 Public Hearing.

Part A – MIS/DEIS Comments

1. *Supported the Bus Rapid Transit Alternative as the locally preferred alternative.*

   Response: Thank you for supporting the project.

Part B – SDEIS Comments

2. *I am the Transportation Chair of the Neighborhood Board 15. I am the Sitting Chair with the Kalihi-Palama Vision Team. I am also a commissioner with the Department of Transportation. That's an uncompensated position, if anybody asks. I don't get paid. We make the rules, but we don't get paid for it.*

   Response: Comment noted. No response required.

3. *The reason I appreciate speaking today to you is this: Dillingham corridor falls flat in the middle of my area. That area is one that is a bone of contention. I've heard it addressed. I've heard people say they're unhappy. Well, your neighbors made this decision. If you're unhappy with you neighbor, let's talk to your neighbor and get them at the next meeting right here. Don't beat up on the City. They didn't do it, believe it or not. You want to beat somebody, 225 pounds right here, and I'll take on a New York cop in a minute. I happen to have been a State sheriff here.*

   Response: No response required.

4. *Now, let me get this straight. If you're going to talk about the BRT, this island is 22 by 60. We have a multitude of cars every year. And once – and the growth of maturity of our own people states this, that every generation has to have a car to prove maturity. We know that. But how about the people who cannot move? The ones who are in the homes, the ones who need to go to the hospital, the ones who need to see their doctor? Let's have options. We use the bus..*

   Response: Comment noted. No response required.

5. *And by the way, for those of you who don't know it, we have been running special buses up and down the routes for several years. This is the prelude to see if BRT may be feasible in certain areas.*

   Response: Comment noted. No response required.

6. *What I'm hearing today is you've taken the system and torn it to shreds. That wasn't the original intention. The original intention was take this system; every community, if you have a problem, voice your problem to that segment of the community. Nothing was written in stone. As it sits right now, it still isn't written in stone. But you guys want to beat up the people who came in with the brain power and said, "What if we try this?" Well, if you have a better solution, give it. Don't sit there and be the silent majority.*

   Response: Comment noted. No response required.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: Betty Downing

Representing: Myself

Address: 1777 Ala Moana Blvd #729
Honolulu, Hi 96815

Please make any comments below:

I'm a transplant from California (also my husband), and we are avid riders of The Bus. It's great! I believe, as some of the speakers advocated 4/20/02, that service must be expanded and improved — But KEEP IT AS IS. As it is. We are Island residents now, 2½ yrs and feel your transportation system is one of the best in the US. A future Monorail would be lovely but not a solution for now. Let's spend what money we have on service improvements.

Also — as one speaker suggested, let's get OFF the roads those who are driving cars illegally. We could eliminate 25% of the congestion.

IT'S NOT THAT DIFFICULT!

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00557

November 13, 2002

Ms. Betty Downing
1777 Ala Moana Boulevard, #729
Honolulu, Hawaii 96815

Dear Ms. Downing:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm a transplant from California (also my husband), and we are avid riders of TheBus. It's great! I believe, as some of the speakers advoceted 4/20/02, that service must be expanded and improved – but KEEP IT AS IS. As it is. We are Island residents now, 2-1/2 years and feel your transportation system is one of the best in the U.S.*

   Response: We appreciate your support of Honolulu's present public transit system.

2. *A future monorail would be lovely, but not a solution for now. Let's spend what money we have on service improvements.*

   Response: Comment noted.

3. *Also – as one speaker suggested, let's get OFF the roads those who are driving cars illegally. We could eliminate 25% of the congestion. IT'S NOT THAT DIFFICULT!*

   Response: Illegal drivers are beyond the scope of the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00558

November 13, 2002

Mr. Justin Enomoto
91-1001 Kaibeenafu St.
Ewa Beach, Hawaii 96706

Dear Mr. Enomoto:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I've been a former single driver into the Downtown community and currently switching into the bus system. I found that the bus is a more convenient, as well as efficient, method of transportation into the town district, saving myself at least a hundred dollars in parking fees as compared to a $27 bus pass. I feel that, if more people were to use the bus, that, obviously, traffic would be decreased in the Downtown district.*

   Response: Comment noted. No response required.

2. *In regards to all the commuters from the villages, as some people have referenced it, as far as Ewe Beach, Waianae, Nanakuli, all these people are coming to the Downtown area, if we don't start increasing in the bus users in that area, all these cars are coming into Downtown, causing more traffic. If they stop using the bus, then there's obviously nowhere that they're going to be able to park.*

   Response: Comment noted. No response required.

3. *So as far as my support for the BRT, I feel that any improvements and enhancements that can be made towards a great system already, I'm full in favor of it. And I would suggest that many of you start using the bus as well.*

   Response: We appreciate your support of the project and for attending the public hearing.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00559

November 13, 2002

Mr. Wes Frysztacki
711 Kapiolani Boulevard, Suite 275
Honolulu, Hawaii 96813

Dear Mr. Frysztacki:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I am a three-year resident on Piikoi. And I'm speaking in favor of BRT for two reasons.*

   Response: Thank you for supporting the project and attending the public hearing.

2. *One, as a resident, I will directly benefit from two of the branches that will be in easy walking distance.*

   Response: Comment noted. No response required.

3. *And also because, last night, I was on route eight, and it was not only a seated load, it was a standing load, and it was passing people up. We don't need to make ridership projections. That ridership is already there. The system is essentially at capacity.*

   Response: Thank you for sharing your experience regarding your bus ride and passenger being passed up.

4. *The second reason I wanted to speak in favor of BRT is because I'm also the project manager for the hub-and-spoke process. I appreciate the many comments in favor of hub-and-spoke. That is e process now that has been going on for three years. It is divided up into five phases. The first two phases have already been completed. The first phase was on the Leeward side. Those routes have been in operation now for about a year and a half. The second phase was Central area, and those recommendations are included in the current City budgets under deliberation.*

   Response: Comment noted. No response required.

5. *Many people in those areas appreciate what we've been able to do. They also understand that they will continue to benefit, because tha country express routes that are in operation and will continue to be improved are reliant on the BRT improvements. It is one of the same. It is a totel package. The p.m. zipper lane, the improvements along Kamehemaha, the in-town trolley, are all part of the same system. We cannot pick and choose. At this point, if we do not proceed, then we have also killed hub-and-spoke for the meantime until we can rethink the SDEIS. I ask you not to do this.*

   Response: This is a statement of support. No response required.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD02-00560

November 13, 2002

Mr. Alan Fujimori
1350 Ala Moana Boulevard
Apartment 712
Honolulu, Hawaii 96814

Dear Mr. Fujimori:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony regarding the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). Your testimony at the November 14, 2000 Special Transportation Committee Meeting supported the In-Town BRT as the Locally Preferred Alternative (LPA). Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
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CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00561

November 13, 2002

Mr. Albert Fukushima
1841 Palamoi St.
Pearl City, Hawaii 96782

Dear Mr. Fukushima:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *My name is Albert Fukushime, chairmen of the Pearl City Neighborhood Board, and I would like to express our board's support of the BRT system, particularly that the Kaonohi Street off-ramp and the Kam Highway Drive-in transit center has been elimnated. And, basically, we favor that Luapele street on-remp.*

   Response: This is a statement of support. No response required.

2. *But we would also like to express our request to expedite the implementation of the Kamehamaha Highway corridor chart thet the Aiea/Pearl City Working Group did come out, and, basically, it's covered in the progress report number six, thet we have our own separate system serving Aiea/Pearl City with the three transit centers.*

   Response: The Kamehameha Highway improvements are proceeding as an independent project by the City. They are included as a systemwide element in the financial plan (Chapter 6).

3. *And the only thing that I'd like to add was our concerns brought up is that, as part of the improvements of the highway system, that the Aiea/Pearl City be given an opportunity to get into the zipper lane.*

   Response: The Luapele Drive ramp will permit buses serving Pearl City, Aiea, Aliamanu, Salt Lake, and Foster Village to access the zipper lanes.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

Bennett Fung
1561 Kanunu Street #1601
Honolulu, HI 96814

Date: April 17, 2002

Subject: I support the proposed BRT

To Whom It May Concern:

How long did you sit in traffic today? Do you remember the oil embargo? If you think the existing bus system is pretty good, what do you think of the BRT that is much better? There are just a few of the reasons I support the proposed BRT.

We tend to make decisions based on what we see and how we feel today. If we take that attitude with BRT and oppose BRT, we are making a mistake. Not only will BRT help make Oahu a better place to live, improve the quality of life, it is a project for our future, Just like how you and I do our best for the future of our family.

BRT is the right mass transit project for Oahu. It will not solve all our traffic problems, but it is the biggest bang for our bucks. To solve our traffic problem, it takes YOU to get out of YOUR car and start using the BRT.

Yours truly,

Bennett Fung

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00562

November 13, 2002

Mr. Bennett Fung
1561 Kanunu Street, #1601
Honolulu, Hawaii 96814

Dear Mr. Fung:

Subject: Primary Corridor Transportation Project

This is in response to your April 17, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *How long did you sit in traffic today? Do you remember the oil embergo? If you think the existing bus system is pretty good, what do you think of the BRT thet is much better? These are just a few of the reasons I support the proposed BRT.*

   Response: Thank you for supporting the project.

2. *We tend to make decisions based on what we see and how we feel todey. If we take thet attitude with BRT and oppose BRT, we are making e mistake. Not only will BRT help make Oahu e better place to live, improve the quality of life, it is a project for our future. Just like how you end I do our best for the future of our family.*

   Response: We concur.

3. *BRT is the right mass transit project for Oahu. It will not solve all our traffic problems, but it is the biggest bang for our bucks. To solve our treffic problem, it takes YOU to get out of YOUR car and start using the BRT.*

   Response: We concur and again thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: Cipriè Galima
Representing: EWA Beach Hi 96707
Address: 91-925-A-5 North Road
Ewa Beach, Hi

Please make any comments below:

I am glad and grateful about the BRT for it will help much the commuters going to their distination. But Ewa I wish if this B.R.T. will come or include Ewa Beach to be one of its route.
I thanks to much and appreciate this very much.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00568

November 13, 2002

Mr. Ciprie Galima
94-925-A-5 North Road
Ewa Beach, Hawaii 96706

Dear Mr. Galima:

Subject: Primary Corridor Transportation Project

This is in response to your comment at the April 20, 2002 public hearing regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

I am happy and grateful about the BRT for it will help much the commuters going to their destination. But how I wish if this BRT will come or include Ewa Beach to be one of its route. I thanks to much and appreciate this very much.

Response: There will be buses serving Ewa Beach that connect to the Regional BRT through the transit center at Hikimoe Street and the park-and-ride at North-South Road.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00569

November 13, 2002

Mr. Larry Geller
3264 Melemele Place
Honolulu, Hawaii 96822

Dear Mr. Geller:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I came to testify in opposition to this plan.*

   Response: Thank you for attending the public hearing and expressing your opinion about the project.

2. *I do not oppose rapid transit.*

   Response: Comment noted, no response required.

3. *I was raised in New York where subways and buses -- to go to high school and college during my life. Then moved to Tokyo, with an excellent rapid transit system. I've been to Portland, Singapore -- and so forth. So I'm not an enemy of the transit system.*

   Response: Comment noted, no response required.

4. *I guess I was under the mis-impression that there would be decision-makers, in other words, folks from the City Council here today to hear the testimony. And I apologize for that.*

   Response: Comment noted, no response required.

5. *I think your job is probably to hear us and then just go do this anyway.*

   Response: Comment noted, no response required.

6. *So I would like to address my testimony to the decision-makers who are present in this room, which would be the elected officials we have from the State and from the neighborhood boards, the people here who showed that they could deal with the traffic jams. And we're going to have to do the same for this.*

   Response: Comment noted, no response required.

7. *So here's my testimony. I used up a lot of time. Three minutes isn't much.*

   Response: Comment noted, no response required.

8. *This will not take cars off the street. When the First Hawaiian Tower was built, 430 feet was a height exemption. People filled that building, right, and down at the bottom of the building are parking places. The parking places are filled with cars. Parking places are a commodity in Downtown. They are all filled with cars.*

   Response: Comment noted.

9. *So you can have a wonderful mass transit system – and I don't' care whether it's monorails or buses, whatever it is – those parking places are filled with cars. Those cars are going to be on the roads. When the new structure goes up on Nuuanu, it's going to have parking places in it. When the medical center comes up, phase one of that is – includes a 500-stall parking structure in Kakaako, which is practically the same thing. That structure will be filled with cars. If some of them should be empty, then Diamond Parking, whoever it is, is going to lower the price a little. They will be filled, because that's the way it is in Honolulu. So this system will not reduce cars on the road.*

   Response: Comment noted.

10. *And we have heard plenty of testimony. A lot of people apparently like riding the bus – riding the bus, whether it does you any good, it's just not going to reduce the number of cars on the road, even if you're on the bus. If you give up your parking place, somebody else will take it, because that's the way it is.*

    Response: Comment noted.

11. *Castle & Cooke is dropping 30,000 homes in Central Oahu. Each of them is going to have a garage or a carport, and there's going to be a car there. And guess what, folks? They're going to shop at Costco. They're going to want to get into town. There's going to be – and unless the – the one way we can reduce congestion is to put the brakes on development. And this is something that our City Council has not been willing to even talk about.*

    Response: Comment noted. It is beyond the scope of the project to determine whether or not future development should be halted.

12. *If there's one benefit to rapid transit, it's to bringing people into town efficiently – and I will summarize – that is to increase the productivity of labor.*

    Response: We concur that one rapid transit benefit is to transport people efficiently, which the Refined LPA (Bus Rapid Transit) will do.

13. *It lets you bring into factories and office areas people who can't afford cars. It benefits business in that way.*

    Response: We concur that the Refined LPA will provide another transportation alternative to owning a car.

14. *Unfortunately, Downtown Honolulu is not such a place. We don't have low-price factories and sweat shops and so forth, folks that generally benefit from the rapid transit, businesses that do benefit from rapid transit.*

    Response: Comment noted.

15. *And yeah, I mean, the road rage is going to be outstanding. Sometimes it might even make me mad.*

    Response: Comment noted, no response required.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00570

November 13, 2002

Mr. Matt Gilbertson
1212 Nuuanu Avenue, Apt. 3111
Honolulu, Hawaii 96817

Dear Mr. Gilbertson:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 26, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I'm speaking on my own behalf here to testify in support of the Bus Rapid Transit Alternative as planned by the City and County, Department of Transportation.*

   Response: Comment noted. Thank you for supporting the project.

2. *And I think Honolulu's current system is significantly underdeveloped. And for years has been under neglect. So, I would suggest that we cannot afford to be timid. We can't take tentative steps while other cities are taking more aggressive steps. 'Cause we are in a competitive market.*

   Response: The Refined LPA is the boldest of the three alternatives in terms of the quantity and quality of transit service offered.

3. *But at the same time, as an architect, I also would stress that we cannot afford to do anything that will blight our community. Certain things have been said about doing elevated situations. And I could see no greater harm then we could do to our environment our pristine, beautiful surroundings than that which is our primary lifeline as Honolulu.*

   Response: The BRT Alternative is an at-grade system and does not include any elevated components.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Feith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

MAY – 7 2002

2333 Kapiolani Blvd. #3410
Honolulu, HI 96826

May 7, 2002

Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu
650 S. King Street, 3rd Floor
Honolulu, HI 96813

Subject: Primary Corridor Transportation Project

Dear Ms. Soon:

Attached are my comments regarding the subject SDEIS for the BRT Project. These comments include a few points supplemental to the limited three-minute testimonies given at your hearing on April 20th and the City Council hearing on April 24th/25th.

Very truly yours,

Burt Goldenberg

2333 Kapiolani Blvd. #3410
Honolulu, HI 96826

May 7, 2002

The following are my comments on the Supplemental Draft Environmental Impact Statement of March 2002 for the BRT Project:

My name is Burt Goldenberg – private citizen. I live at the Marco Polo Condominium on Kapiolani Boulevard at the intersection with Isenberg St. on the proposed BRT route.

I support implementing the portion of the TSM alternative west of middle St. as a first priority and deferring the in-town BRT portion until further impartial studies are done.

My reasons for this deferral are the following:

1. Current In-town Bus System is excellent – many City improvements and intense DTS management have resulted in a dependable and appreciated system. All it needs is fine-tuning and enlargement over time to suit growing demands. Most people at the Marco Polo who use the bus system are very pleased with City Express buses that shuttle them downtown very quickly and conveniently – Friends of ours from Arizona usually spend 3-4 months during the summer here in Honolulu and the first thing they do is stop on their way from the Airport to get their monthly bus passes. They never rent a car because they prefer using buses for sightseeing, shopping and anything else that suits their needs. They and other bus riders I talk to give Honolulu's bus system very high marks.

2. Taxes would be increased substantially - The City is now struggling with a budget dilemma for tax year 2003 - raise taxes or cut services. It is claimed that the entire BRT Plan would not result in increased taxes. But, this would not be the case if cost overruns were encountered at various stages of the program. Based on past City performance in terms of low-ball budget estimates and inadequate quality oversight of projects, we could be looking at overruns in the 20% to 100% range, especially if ridership forecasts are not met. Studies of many major transportation projects worldwide show overruns of up to 100% and higher – surely taxes would increase.

3. Traffic congestion/gridlock would worsen due to dedicated lanes – Current traffic in town is bad during morning and afternoon peak travel periods, further complicated by a lack of enough human (police) involvement at intersections and other key traffic spots to mitigate gridlock.

   Surely, taking away lanes to be dedicated to BRT buses exclusively or in concert with other commercial people-carrying vehicles will snarl traffic in-town to a point where it could become as bad as trying to drive cross-town in New York.

4. Private Bus Transport Contractors – not part of the solution

   It doesn't appear that private contractors have been designated to be involved contrary to statements made in community meetings that I attended that were held in the early stages of this project's development.

   It would seem that they could augment the City's system in many ways in the hub and spoke system and be a buffer for unanticipated peak requirements. They could also provide competitive stimulation to the City's forces in providing proficient and efficient people transport.

Recommendations

A. **Defer In-Town BRT**, start on the TSM alternative west of middle St. instead,

   Change City budget requests to reflect this change and the costs to accomplish item B noted below.

B. **Do further studies** using outside, impartial consultants to:

   1. review current BRT plan as to viability and assumptions employed regarding bus routing and scheduling, community and business impacts, costs to implement, etc.

   2. propose other possible alternative methods/systems and evaluate their suitability, effectiveness and overall costs.

   Would suggest that a small taskforce be formed of UH, City, State and private citizens who have been actually involved in the transportation arena to participate in selection of at least two (2) impartial consultants to do the tasks noted above.

   Also, to maintain utmost impartiality, it is recommended that the UH Engineering Department be appointed, or contracted if necessary, to supervise the Consultants subject to taskforce involvement. They would also facilitate contact with the City's Department of Transportation Services and their current consultant to provide data and information that has been so far generated and accumulated in preparation of the Trans 2K project and BRT proposal.

C. **Run tests** on some proposed exclusive lane streets to study impacts on traffic by running regular buses in coned lanes.

   This should also be done involving the taskforce during the time that outside consultants would be performing their tasks.

AR00015834

D. **Private Contract Transporters** should be incorporated into the general scheme possibly by reserving portions of the hub & spoke system for them and doing fill-in jobs to augment City forces during peak periods. I am hopeful that the DTS would meet with contractors as a group to foster their ideas and thoughts as to how they could benefit the City and themselves by their involvement in Bus System Operations.

E. **Traffic Monitors** should be trained for part-time involvement in their own neighborhood during peak morning and afternoon traffic flows to avoid or, at least, mitigate gridlock at intersections. I would think that people who are physically able and adept and have proper understanding of the tasks being proposed would be candidates to be trained. Presumably the Police Department could handle their training and then supervise them on a neighborhood basis. Enough could be trained so that they would do only a morning or afternoon stint to allow them a choice to fit their own schedule.

They should be trained as well to do the initial paperwork to enable police to issue warnings to owners whose cars violate gridlock rules.

This would help the people earn some money, would help traffic move better and it could be done now - it is needed now!

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
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CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01836R

November 13, 2002

Mr. Burt Goldenberg
2333 Kapiolani Boulevard
Apt. 3410
Honolulu, Hawaii 96826

Dear Mr. Goldenberg:

Subject: Primary Corridor Transportation Project

This is a combined response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). We are responding in two parts. Part A responds to the oral testimony you gave at the October 5, 2000 and November 14, 2000 Special Transportation Committee Meetings. Part B responds to the oral testimony you gave at the Supplemental Draft Environmental Impact Statement (SDEIS) April 20, 2000 Public Hearing and your May 7, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *I realize that we're going to be affected, compounded more than a lot of people by having this dedicated lane right in front of our building. But I'm not as worried about that as I am about the fact that the problem for transportation here in Honolulu and on this island is the fact that just too many cars and there's nothing addressing how we're going to get them off the roads.*

   Response: The Refined LPA will offer an option to motorists willing to leave their cars at home or to give up owning a car at all.

2. *And I think in time the in-town portion of whatever we're going to do will be decided and it will be an improvement.*

   Response: Comment noted.

3. *But the problem is you got too many cars coming into Honolulu. Where are they parking? That's the problem. So how do we get rid of the cars?*

   Response: See response to comment #1.

4. *I think the TSM system you mentioned the other night that would probably attract 46,000 more riders. And you assume that based on two people in a car that would get rid of 20,000 cars, roughly. Suppose they're all people who don't drive. Then we still got the same amount of cars on the road. And there's no guarantee that anything will get better by this in-town system and the highways.*

AR00015835

Response: In addition to attracting new passengers as a result of population growth, the TSM Alternative is forecast to attract 18,270 new riders per day in 2025. The Refined LPA is forecast to attract 51,440 new riders per day by 2025. With an average vehicle occupancy of 1.3 forecast for 2025 that would be a reduction of 14,050 auto trips with the TSM Alternative and 39,570 auto trips with the Refined LPA.

5. *Let's make a toll road or something. Let's assign toll roads.*

   Response: There are no toll roads proposed in the Oahu Regional Transportation Plan.

6. *Get rid of parking. It takes strong politicians to face the fact that you're going to tell people that you can't allow any more parking and we're going to take away some right now. At the University there, I think the other night someone mentioned that they're going to put a new parking structure in addition to the one they've got. Well, that allows people to use cars on the roads. So the solution, as I see it, is to get rid of the parking and that means take away what you already have and don't get any more. You gotta change laws about building new buildings where you have to have parking in there. Why? So, I think we have to address that problem.*

   Response: In addition to trying to attract motorists to transit by providing service near their homes, the Refined LPA proposes to build park-and ride facilities in outlying locations to reduce the need for commuters to have to drive all the way into town. These outlying parking facilities would reduce the number of autos circulating in-town as well as reduce the number of parking spaces needed in-town.

7. *And I think toll road application, getting rid of parking are the answers.*

   Response: Comment noted.

8. *We talked about this the other, I think it was a week ago. About using King Street as a main artery. Because I think right now it's a dangerous street to even walk across. And I think having a one dedicated bus lane or two in the center would make a lot of people to cross the street properly would be a big help. I think six lanes in there right now...There are places where it goes down to five and four. But there's plenty of room on King Street to go all the way from the center of town out to the University. I think it would allow more people to use it.*

   Response: South King Street is being used as the In-Town BRT alignment from downtown to Pensacola Street.

9. *Support the TSM Alternative as the Locally Preferred Alternative.*

   Response: Comment noted.

Part B – SDEIS Comments

10. *I live at the Marco Polo on Kapiolani, so we have a lot of traffic on our street. I think everything should be deferred. We should take a breather, and get someone else in terms of consultants with some fresh ideas, additional to what's already been put together, and come up with a solution for the in-town portion of the system. I think starting out at the outlying portions is the right way to go. But I have reasons for this deferral.*

    Response: Comment noted.

11. *First of all, cost. I think the City Council is struggling with the budget that we are – that has been put forth so far, and it's either raise taxes or cut services.*

    Response: Comment noted. Chapter 6 of the FEIS presents the project's financial plan. It indicates that raising taxes and/or cutting services will not be required as a result of the project.

12. *And according to this plan, there will be no increased taxes.*

    Response: That is correct. This project has been developed following City Council policy to not increase taxes. The financial analysis (Chapter 6 of the FEIS) shows that no increases in existing taxes or new taxes will be required to fund the project as proposed.

13. *If you look at the past record of the City executing big projects, sizable projects, the police station, they added $70 million last year to the budget that had already been approved for things that they forgot.*

    Response: Comment noted.

14. *The track record has been they low-ball the estimates for the budgeting, and they have not had the oversight to really run the projects properly. I don't know what they've done in the meantime to improve that situation. But I would think that the overruns probably would run anywhere from twenty to a hundred percent over what we're being – seeing right now. So I don't know whether there's going to be an increase in taxes to take care of that. Or do we pull out the credit card again?*

    Response: Comment noted.

15. *I think – the second reason for my holding off on this is that the current system is great. I hear this from everybody who uses the bus. We have friends who come in yearly, who spend the summer months here in Honolulu, and the first thing they want to do when they get in is go and get their monthly bus pass. They go every place by bus. The system is great. I think it is to the credit of Cheryl Soon and everything she's done. I've said that in the past.*

    Response: Thank you for your support of the current public transit system.

16. *But I think that the system we have is great. It can be fine-tuned and enlarged to meet demands, and I think that ought to be the urgency right now.*

    Response: Comment noted.

17. *The traffic and the gridlock that we're getting, I think – one of the things I find – and this rapid transit and the exclusive lanes is going to create a problem. But I don't see police at the intersections which seem to get tied up with the people getting caught before they get past the intersection and blocks lanes of movement. And I think that's one of the biggest problems we have with the current system.*

    Response: Rigorous enforcement will be important to keeping traffic flowing in the future.

18. *Then, too, in this SDEIS, I haven't seen anything as far as private contractors transporters being a part of the component of the system. And I think that that's something that has to be – oh, boy.*

    Response: Private buses will be able to use the priority lanes in Waikiki.

19. *Anyway, I think we ought to bring in some consultants who have got some fresh ideas and let them work with the citizens panel, U.H., people to look at any other possible alternative systems for putting those in place. And there's not enough time so.*

    Response: Comment noted.

20. *I support implementing the portion of the TSM alternative west of Middle St. as a first priority and deferring the in-town BRT portion until further impartial studies are done.*

    Response: Thank you for taking the time to review the SDEIS and for submitting a letter expressing your preferences regarding alternatives.

21. *Current In-town Bus System is excellent – many City improvements and intense DTS management have resulted in a dependable and appreciated system. All it needs is fine-tuning and enlargement over time to suit growing demands. Most people at the Merco Polo who use the bus system are very pleased with City Express buses that shuttle them downtown very quickly and conveniently – Friends of ours from Arizona usually spend 3-4 months during the summer here in Honolulu and the first thing they do is stop on their way from the Airport to get their monthly bus passes. They never rent a car because they prefer using buses for sightseeing, shopping and anything else that suits their needs. They and other bus riders I talk to give Honolulu's bus system very high marks.*

    Response: Thank you for your support of the current public transit system.

22. *Taxes would be increased substantially—The City is now struggling with a budget dilemma for tax year 2003 — raise taxes or cut services. It is claimed that the entire BRT Plan would not result in increased taxes. But, this would not be the case if cost overruns were encountered at various stages of the program. Based on past City performance in terms of low-ball budget estimates and inadequate quality oversight of projects, we could be looking at overruns in the 20% to 100% range, especially if ridership forecasts are not met. Studies of many major transportation projects worldwide show overruns of up to 100% and higher – surely taxes would increase.*

    Response: There is no evidence to support the claims. Recent major transit projects in Salt Lake City, San Diego, Dallas, Portland and elsewhere have been built within or under the construction cost estimates.

23. *Traffic congestion/gridlock would worsen due to dedicated lanes – Current traffic in town is bad during and morning and afternoon peak travel periods, further complicated by a lack of enough human (police) involvement at intersections and other key traffic spots to mitigate gridlock.*

    Response: Rigorous enforcement will be important to keep traffic flowing in the future.

24. *Surely, taking away lanes to be dedicated to BRT buses exclusively or in concert with other commercial people-carrying vehicles will snarl traffic in-town to a point where it could become as bad as trying to drive cross-town in New York.*

    Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

25. *Private Bust Transport Contractors – not part of the solution - It doesn't appear that private contractors have been designated to be involved contrary to statements made in community meetings that I attended that were held in the early stages of this project's development.*

    Response: Several tour bus operators were invited to attend the working group meetings and some attended those meetings and some chose not to attend.

26. *It would seem that they could augment the City's system in many ways in the hub and spoke system and be a buffer for unanticipated peak requirements. They could also provide competitive stimulation to the City's forces in providing proficient and efficient people transport.*

    Response: Consideration will be given to contracting with private passenger carriers for portions of the hub-and-spoke system.

27. *Defer In-Town BRT, start on the TSM alternative west of middle St. instead, – Change City budget requests to reflect this change and the costs to accomplish item B noted below.*

    Response: There is no reason to defer implementation of the In-Town BRT as has been approved by the City Council.

28. *Do further studies using outside, impartial consultants to:*

    1) review current BRT plan as to viability and assumptions employed regarding bus routing and scheduling, community and business impacts, costs to implement, etc.

    Response: The Primary Corridor Transportation Project was initiated in September 1998 with gathering public input to create and refine the Islandwide Mobility Concept Plan. Numerous outside consultants have assisted the city in preparing the analyses, EIS and engineering for the project. The DEIS, SDEIS, and FEIS summarize the assumptions, impacts, benefits, and costs associated with the BRT Alternative.

29. *propose other possible alternative methods/systems and evaluate their suitability, effectiveness and overall costs.*

    Response: Other alternatives have been considered and rejected in favor of the Refined LPA.

30. *Would suggest that a small taskforce be formed of UH, City, State and private citizens who have been actually involved in the transportation arena to participate in selection of at least two (2) impartial consultants to do the tasks noted above.*

    Response: Numerous outside consultants have assisted the City in conducting extensive analyses to date. Additional study is unwarranted.

31. *Also, to maintain utmost impartiality, it is recommended that the UH Engineering Department be appointed, or contracted if necessary, to supervise the Consultants subject to taskforce involvement. They would also facilitate contact with the City's Department of Transportation Services and their current consultant to provide data and information that has been so far generated and accumulated in preparation of the Trans 2K project and the BRT proposal.*

    Response: See response to comment #30.

32. *Run tests on some proposed exclusive lane streets to study impacts on traffic by running regular buses in coned lanes. This should also be done involving the taskforce during the time that outside consultants would be performing their tasks.*

    Response: A test of closing a lane is not a test of what will happen with the BRT, it is only a test of what happens when a lane is closed which is something everyone knows from when lanes are temporarily closed during utility construction.

    As is pointed out in Chapter 4 of the FEIS, over time there will be more than enough people diverted from autos to transit to offset the impact of converting lanes for priority use by buses. This diversion from autos will only happen once it is clear that the BRT installation is a permanent improvement, not part of some test.

    What is proposed with the first branch between Iwilei and Waikiki will be a good test of the ability of BRT to attract new riders and the impacts of converting lanes in selected locations.

33. *Private Contract Transporters should be incorporated into the general scheme possibly by reserving portions of the hub & spoke system for them and doing fill-in jobs to augment City forces during peak periods. I am hopeful that the DTS would meet with contractors as a group to foster their ideas and thoughts as to how they could benefit the City and themselves by their involvement in Bus System Operations.*

    Response: Consideration will be given to contracting with private passenger carriers for portions of the hub-and-spoke system.

34. *Traffic Monitors should be trained for part-time involvement in their own neighborhood during peak morning and afternoon traffic flows to avoid or, at least, mitigate gridlock at intersections. I would think that people who are physically able and adept and have proper understanding of the tasks being proposed would be candidates to be trained. Presumably the Police Department could handle their training and then supervise them on a neighborhood basis. Enough could be trained so that they would do only a morning or afternoon stint to allow them a choice to fit their own schedule.*

    They should be trained as well to do the initial paperwork to enable police to issue warnings to owners whose cars violate gridlock rules.

    This would help the people earn some money, would help traffic move better and it could be done now – it is needed now!

    Response: Thank you for this suggestion.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

October 24, 2000

RECEIVED
OCT 24 4 36 PM '00
CITY CLERK
HONOLULU, HAWAII

Mr. Jon Yoshimura, Chair
Honolulu City Council
530 So. King Street
Honolulu, HI 96813

Subject: Oahu Trans 2K Progress Report

Dear Sir:

I have reviewed the subject report and have concluded that the Bus Rapid Transit (BRT) would be the most effective way to ease the traffic burden Honolulu is experiencing. Other means would require the use of unsightly viaducts or would take developed property to widen roads.

The final selection of the equipment for this plan is contingent on what appears best-suited at the time that it is necessary to place an order. It is understood that great strides are being made in combination electrical-internal combustion powered units.

I understand that elements of the "hub and spoke" network are currently being phased into the existing bus system. This is a step forward. Thanks for that activity.

I believe the public is keenly interested in the progress being made to upgrade the capacity and service of the bus system, and these changes might lead to the easing of the ever-growing flow of vehicular traffic.

Thank you for allowing me to testify.

Frederick C. Gross

Frederick C. Gross

1434 Punahou Street, Apt. #837
Honolulu, HI 96822

VIA FAX

TP4/02-1609

1434 Punahou Street, Apt. 837
Honolulu, HI 96822

APR 24 2002

April 22, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, HI 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact
Statement and letter dated March 13, 2002

In response to your subject letter, the following is submitted:

1. Executive Summary - Page S-1, paragraph 5, states: "The in-town BRT system would use an embedded plate system or hybrid electric propulsion."

   I am not aware of a selection of the system to be used. Has the system used in Naples or Trieste, Italy, proven satisfactory? (See your release Oahu Trans 2K, Islandwide Mobility Concept Plan report dated August, 2001.) Wet steel plates may prove slippery. The comment on Page 25 re minimal chances of being electrocuted is noted. Has either system proved itself?

2. In the subject report, Executive Summary, Page 8, paragraph 11 regarding parking, and in many other places in the SDEIS, the need to remove on-street parking is discussed. Nowhere did I find more than a brief statement about additional off-street parking for those displaced from the street. It is going to be necessary to have ample new parking available if it is expected that drivers will park and ride the public transportation.

3. Are we certain that the vehicles for all the various routes can be accommodated on the streets or routes for which they are intended?

I support the BRT program. Let's make it work!

Very truly yours,

Frederick C. Gross

Frederick C. Gross

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01609R

November 13, 2002

Mr. Frederick C. Gross
1434 Punahou Street, Apt. #837
Honolulu, Hawaii 96822

Dear Mr. Gross:

Subject: Primary Corridor Transportation Project

This is a combined response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your October 24, 2000 letter regarding the MIS/DEIS and Part B responds to the comments you made at the SDEIS April 20, 2002 Public Hearing and April 22, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comment

1. *I have reviewed the subject report and have concluded that the Bus Rapid Transit (BRT) would be the most effective way to ease the traffic burden Honolulu is experiencing. Other means would require the use of unsightly viaducts or would take developed property to widen roads.*

   Response: Thank you for supporting the project.

Part B – SDEIS Comments.

2. *I am not speaking against the BRT. I've followed the design and the discussion of it since its inception. I have lived here for over six years, and I've seen a vast change in Honolulu. I've seen a vast change in the last five years as far as traffic is concerned on the H-1 and H-2.*

   Response: Comment noted, no response required.

3. *There's several things about the DEIS that I'm concerned about. It starts off in the executive session talking about the steel plate being used. I hope that you – I would like to hear it expressed here and now that you are not going to use that system until it's improved or proved itself.*

   Response: A decision on the long-term technology will be made in 2008. By then embedded plate technology will have sufficient experience in revenue service elsewhere to determine whether it is the best technology for Honolulu.

4. *One of the things that I think can be a problem is once – is providing parking for people that will no longer be allowed to park on the streets. You're not going to take all the cars that are being used currently off the streets, and you're going to have to provide parking before you start working on the streets. Otherwise, you're going to have a pretty unhappy populace, and I think they'll require that you do something possibly not to your best advantage.*

   Response: DTS is aware that the proposed elimination of on-street parking spaces is of concern to many people. As discussed in Section 4.3, in areas where a large concentration of parking spaces would be affected, replacement parking in new off-street parking facilities will be considered, but only if they meet other livable community objectives and are the result of community-based planning.

5. *I'd like to see also a plan at some time where the various routes are tried with buses to make sure they work. Because, initially, there was a system – a route was suggested where a road didn't exist, and you couldn't do it because there was a building there. I think we can do better than that.*

   Response: The initial technology will be hybrid-electric buses that can be re-routed if there are any difficulties with the selected alignment.

6. *As I said, I am not contrary to BRT. We have to do something. But I hope that we do it properly and we do it fairly soon.*

   Response: Comment noted, no response required.

7. *Executive Summary – Page S-1, paragraph 5, states: "The in-town BRT system would use an embedded plate system or hybrid electric propulsion."*

   I am not aware of a selection of the system to be used. Has the system used in Naples or Trieste, Italy, proven satisfactory? (See your release Oahu Trans 2K, Islandwide Mobility Concept Plan report dated August, 2001.) Wet steel plates may prove slippery. The comment on Page 25 re minimal chances of being electrocuted is noted. Has either system proved itself?

   Response: See response to comment #3.

8. *In the subject report, Executive Summary, Page 8, paragraph 11 regarding parking, and in many other places in the SDEIS, the need to remove on-street parking is discussed. Nowhere did I find more than a brief statement about additional off-street parking for those displaced from the street. It is going to be necessary to have ample new parking available if it is expected that drivers will park and ride the public transportation.*

Response: Whether to provide additional off-street parking to mitigate lost on-street parking is a policy decision to be determined. As discussed in Section 4.3, In areas where a large concentration of parking spaces would be affected, replacement parking in new off-street parking facilities would be considered, but only if they meet other livable community objectives and are the result of community-based planning. Parking facilities for proposed Park-and-Rides are a separate matter, and parking at those facilities will be provided, also as discussed in Section 4.3.

9. *Are we certain that the vehicles for all the various routes can be accommodated on the streets or routes for which they are intended?*

Response: See response to comment #5.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

TO: MS. ~~CAROL~~ SHERYL SOON DEPT'S TRANSPORTATION

CITY & COUNTY OF HONOLULU, CITY COUNCIL CHAIR AND MEMBERS: My name is Raymond A. Gruntz, of 1765 AlaMoana Apt.1482 Honolulu, HI. 96815,tel.#949-0492. I am a Ratired NYCPD Detective, Honolulu is my new home these past 5 years. I OPOSE THE BRT IN ANY SHAPE, WAY OR FORM, Our island traffic at this time is in GRIDLOCK now during rush hour.' If you take away two lanes of existing road way the BRT would be operating on, IT WILL BRING MASSIVE GRIDLOCK CONDITIONS THAT HAS NOT BEEN SEEN ANYWHERE, NOT EVEN NYC. I am concerned that even POLICE, FIRE, AND EMS, people will not be able to respond to EMERGENCY'S on our island. Even with a control switch THAT EXTENDS THE GREEN LIGHT or change red to green as FIRE TRUCKS HAVE NOW, in GRID LOCK, nothing moves, not to mention that when the BRT BUSES back up as the buses do now, keeping the traffic light green for them will cause CROSS TRAFFIC to also back up making things even worse. IT'S A LOSE LOSE PROJECT AND TO TOP IT OFF OUR STATE, CITY & COUNTY HAS BIG TIME BUDGET PROBLEMS, WE CAN'T AFFORD THIS (ONE BILLION DOLLAR TOY), WHEN IT FAILS AND IT WILL, WITHOUT A SHADOW OF A DOUGH, YOU CAN PARK YOUR BULLET BUSES IN THE CONVENTION CENTER. WHY NOT LEAVE IT TO THE NEW COUNCIL AFTER THE ELECTION COME NOVEMBER THIS YEAR. THIS PLACE IS OVER TAXED AND OVER SPENDS, AND TIME AND TIME AGAIN MAKES MISTAKES THAT COST'S US TAX PAYER'S MILLIONS, TRAFFIC CAMS, MAINTAINING OUR PUBLIC POOLS, AND EVA VILLAGE,(TO NAME A FEW. (LET'S STOP WASTING MONEY), LIKE WE SAY IN NY," FOR GET ABOUT IT". SO PLEASE KILL THE BRT. NO RIGHT THINKING PERSON WANT'S IT, LISTEN TO THE PEOPLE, HOW MANY PEOPLE IN THIS CONVENTION CENTER DO YOU THINK HAS ANYTHING GOOD TO SAY ABOUT THE BRT, NOW THAT THEY KNOW WHAT IT WILL CAUSE ON THIS ISLAND. IT'S NOT YOUR MONEY, IT'S OURS, AND WE DON'T WANT YOU TO SPEND IT ON THE BRT . WHEN I WAS A NEW RESIDENT HEAR IN HONOLULU, I SAW ON CABLE, THE STATE AND CITY, HEARINGS BEING AIRED TO THE PUBLIC, I SAW THE LOCAL BOARDS CONDUCTING THERE MEETINGS, THE GOVERNOR, MAYOR AND YOU THE COUNCIL AT VARIOUS EVENTS THINKING WOW, OUR ELECTED OFFICIAL'S ARE IN THE STREET'S WITH THE PEOPLE, I GOT POT HOLDERS IN THE MAIL, I SAID WHO'S THIS DUKE SENDING ME POT HOLDERS. I LEARNED THAT FOR THE MOST PART GOING TO THE HEARING'S AND SPEAKING ON VARIOUS SUBJECT'S IT DID NOT MATTER I WAS TOLD THANK YOU, OR THANK YOU FOR YOUR TESTIMONY, AND VARIOUS COMMITTEES HAD THERE OWN AGENDA, OR WOULD RECESS AND PEOPLE WOULD GET TIRED, GO TO WORK, OR JUST GO HOME. THEN THE HEARING WOULD RECONVENE AND VOTE THE WAY THE MACHINE WANTED. THIS HAS BEEN THE CASE AT THE STATE CAPITAL AS WELL AS AT THE COUNCIL. JUST LOOK OUT AT THE VOTER'S SEATED BEFORE YOU MOST OF M ARE OPPOSED TO THIS PROJECT. WE WILL BE AT THE COUNCIL THE 24 OF APRIL 2002, IF YOU DON'T KILL THIS TODAY. WE HAVE BEEN INFORMED THAT THE START UP FUNDS FOR THE BRT ARE TO BE VOTED ON THAT DATE, TO GET IT STARTED. I WILL BE REQUESTING OUR NEW FEDERAL PROSECUTOR TO FOLLOW THE MONEY, BOTTOM LINE THIS STATE & CITY NEEDS A MAJOR INVESTIGATION INTO IT'S FUNDING AND GOOD OLD BOY CONTRACTS. I DO WANT THIS OPPOSING TESTIMONY TO BE INCLUDED IN THE FINAL EIS REPORTING. THANK YOU FOR YOUR TIME.

APR 2 0 2002

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00571

November 13, 2002

Mr. Raymond A. Gruntz
2550 Kuhio Avenue, #2402
Honolulu, Hawaii 96815

Dear Mr. Gruntz:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing and your April 22, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I oppose the BRT in any shape, way or form.*

   Response: Thank you for expressing your preference regarding the alternatives considered and analyzed.

2. *Our island traffic at this time is in gridlock now during rush hour. If you take away two lanes of existing road way the BRT would be operating on, it will bring massive gridlock conditions that has not been seen anywhere, not even NYC.*

   Response: It is not the conversion of lanes that will create the congestion, the congestion for motorists will be there with or without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

3. *I am concerned that even police, fire, and EMS people will not be able to respond to emergencies on our island. Even with a control switch that extends the green light or change red to green as fire trucks have now, in gridlock, nothing moves, not to mention that when the BRT buses back up as the buses do now, keeping the traffic light green for them will cause cross traffic to also back up making things even worse.*

   Response: Emergency vehicles will be able to use the BRT lanes to go around back-ups when they need to.

4. *It's a lose lose project and to top if off our state, city & county has big time budget problems, we can't afford this (one billion dollar toy).*

   Response: The MIS/DEIS, SDEIS, and FEIS Chapter 6 and Appendix E present the financial analysis and cash flow tables, respectively. The analysis shows that by phasing the project over time, the Refined LPA can be implemented without raising taxes.

5. *When it fails and it will, without a shadow of a doubt, you can park your bullet buses in the convention center. Why not leave it to the new council after the election comes November this year.*

   Response: Comment noted.

6. *This place is over taxed and over spends, and time and time again makes mistakes that costs us taxpayers millions, traffic cams, maintaining our public pools, and Eve Village (to name a few.)*

   Response: Comment noted.

7. *Let's stop wasting money, like we say in NY, "For Get About it." So please kill the BRT, no right thinking person wants it, listen to the people, how many people in this convention center do you think has anything good to say about the BRT, now that they know what it will cause on this island.*

   Response: Comment noted.

8. *It's not your money, it's ours, and we don't want you to spend it on the BRT.*

   Response: Comment noted.

9. *When I was a new resident haar in Honolulu, I saw on cable, the state and city, haerings being aired to the public. I saw the local boards conducting their meetings, the governor, mayor and you the council at various events thinking wow, our elected officials are in the streets with the people, I got pot holders in the mail, I said who's this Duke sending me pot holders. I learned that for the most part going to the hearings and speeking on various subjects it did not matter I was told thank you, or thank you for your testimony, and various committees had their own agenda, or would recess and people would get tired, go to work, or just go home. Then the hearing would reconvene and vote the way the mechine wanted. This has been the case at the state capital as well as at the council. Just look out at the voter's seated before you most of whom are opposed to this project. Wa will be at the council the 24 of April 2002, if you don't kill this bill today.*

   Response: Comment noted.

10. *We have been informed that the start up funds for the BRT are to be voted on that date, to get it started. I will be requesting our new federal prosecutor to follow the money, bottom line this state & city needs a major investigation into its funding and good old boy contracts.*

    Response: Comment noted.

11. *I do want the opposing testimony to be included in the final EIS reporting. Thank you for your time.*

    Response: The FEIS includes all the MIS/DEIS and SDEIS comments and responses.

12. *I'm a new resident of Honolulu, retired New York City detective. In my other life, I used to have a little joke. You, by conducting this proceedings today, as required by law, when I was enforcing the law, I was required to give the people their legal rights when placed under arrest. First legal right was, "You've got the right to remain silent." I would jokingly at times say, "as long as you can stand the pain."*

The people of Honolulu have not experienced pain, but they will if this BRT goes forward. You want to talk gridlock, we've got gridlock in New York City, my former home. Now that Honolulu is my new home, I'd hate like heck to see it happen here.

Response: Comment noted. Without the BRT, congestion in Honolulu will get worse in 2025. The MIS/DEIS, SDEIS, and FEIS Chapter 4 present the traffic and transportation impacts associated with the project.

13. *People will not get out of their cars. The U.S. runs on cars. Without the car business, our economy would be in shambles. People on wheels have put this country together. Then came the railroad. And poor horses, now all they could do now is make fertilizer.*

    Response: We concur that the automobile plays an important role in the economy; however, the BRT will give people an alternative to using their automobiles.

14. *I did submit my testimony in writing to the people outside at the desk. Since I don't see anyone here handing in their testimonies here this morning. Maybe they don't know what to do with it.*

    Response: Comment noted. People testifying at the April 20, 2002 public hearing could submit their written comments and/or testimonies at the public hearing or mail them to the DTS by May 7,2002.

15. *Hell no, we won't get out of our cars. But the BRT, as the buses do now, when they come into the bumper to bumper situation coming into town, they will have this magic button that will prolong the use of the green signal in the bus's favor.*

    Response: The potential to extend the green phase will only be implemented at locations where it will not significantly effect cross street traffic.

16. *What's going to happen with all the side street traffic? You're going to have gridlocks coming left, right, all around town.*

    Response: The potential for the BRT vehicles to extend the green phase will only be implemented at locations where it will not significantly impact cross street traffic.

17. *Hundred billion – one billion dollars, that's a lot of money. I'm living here on a pension. I put my name and address on a lot of forms outside, so I will be expecting a state income tax audit this year. I guess a lot of other people will, too. But with my pension, luckily enough, it's tax-free in this state. That's one of the reasons I moved.*

    Response: Comment noted.

18. *I'm a Costco customer. I can't get on the bus with my Costco goods. I visited Sam's Club. They won't be able to do it anyway. Walmart, same thing. You can't take your dog on the bus if it's too large for an animal carrier.*

    Response: There is no City ordinance precluding people from riding the public transit system with purchases from Costco, Sam's Club, Walgreens, WalMart, etc. The only caveat is that the person must be able to hold their carry-on items in their laps.

19. *So we have an emergency – police, fire, and emergency vehicles responding to emergencies. Back in New York, when I had the police car, a light, and a siren, at times we went up on the sidewalk to get around gridlock conditions, rushing to a job. I don't hear input from HPD, the fire department or EMS, or doctors having to respond to a hospital to give birth – or assist in giving birth. I still see that now – said enough.*

    Response: During emergencies, emergency vehicles will be able to take use the BRT priority lanes to go around back-ups.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00572

November 13, 2002

Mr. Jim Hall
738 Palani Avenue, Apt. 401
Honolulu, Hawaii 96816

Dear Mr. Hall:

Subject: Primary Corridor Transportation Project

This is a combined response to your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to the oral comments you made regarding the MIS/DEIS at October 5, 2000 Special Transportation Committee Meeting. Part B responds to the oral comments you made at the SDEIS April 20, 2002 Public Hearing

Part A – MIS/DEIS Comments

1. *And excluding the people who live in Waikiki, how many here arrived tonight by our present system, TheBus.*

   Response: Comment noted. The comment is addressing the attendees of the Transportation Committee Meeting.

2. *Now, my second point is the bottom line. The bottom line is the most expensive system in the world is the system that doesn't work. And I'm not so sure that this system is going to work very well. We're talking about a lot of money over 25 years. Already if you put every car in Honolulu on the street now, then we'd be total gridlock entire island. You've got to have all kinds of things to think about.*

   Response: Since congestion is forecast to get worse in the future without the BRT, the purpose of the BRT is to allow those who are willing to use transit to by-pass the congestion where it is possible to give priority to transit vehicles. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

3. *I'm sorry that you excluded, because it's controversial, things like separate grade. I think before any final decision is made, it should be reconsidered.*

   Response: A grade-separated system was proposed in the past and was rejected as too expensive and/or too damaging to the environment. The public and City Council indicated at the outset of the Primary Corridor Transportation Project that a grade-separated system is still not acceptable.

4. *The most expensive system is the system that doesn't work. Even in this paper here you mentioned that a fully grade-seperated system, either an elevated guideway or underground subway would provide fast, high-capacity, reliable service. That's how you get people out of their cars. When it is fast, high-capacity and reliable.*

   Response: The Refined LPA provides a fast, high-capacity, reliable system.

Part B – SDEIS Comments

5. *We have three minutes. And the last time I was here, we only had one minute. I was thinking, What could I say in one minute? And said, "Well, the most expensive transportation plan in the world is the one that doesn't work. And this one won't work." So that was my one-minute speech.*

   Response: Comment noted.

6. *But the other two minutes, I wanted to say I do have some background in this. I worked for the previous mayor. And as an executive assistant, one of the departments I worked with was the Department of Transportation, and we had a task force to look at traffic problems in Waikiki. And I had a proposal that we take all the City buses off of Kalakaua and put them all on Kuhio, and then allow the private buses to use the City bus stops along Kalakaua, and that was accepted, and that's what it is today. So I do have some background in this issue.*

   Response: Comment noted.

7. *Now, while I was working on that project, the mayor asked me to come up with some statistics on what's going to happen in the future. And we did the same thing for this project. I took the number of miles of streets and highways taken – on Oahu in 1975 and the number of registered motor vehicles on Oahu in 1975, and came up with a thing I called "Motor Vehicles Per Mile Street or Highway, Oahu." In 1975, it was 302.7 motor vehicles registered per street or highway mile. And today, that figure is now 410.1 And by the year 2025, if you just stay on the streets, you're going to have 538 motor vehicles per mile street or highway. And I extrapolated using the rate that motor vehicles are going up and the rate the mile streets went up. In 1975, for example, there were 1,094 street miles. In 2000, it was up to 1,500. And in 2025, it should be about 1900. So what we have is the situation in 2025, if we stay on the road and we don't do offgrade for mass transit, we will have more cars than there are feet of road. And that's not a very good situation.*

   Response: That is why the high capacity mass transit system proposed in the Refined LPA is needed.

8. *So what I'm saying is, what the main fault of this plan is they didn't even consider any offgrade type of transportation. And it was like there's the only thing we got to do is the BRT. Well, there's plenty of systems around the world that could be done here and could be – look fine.*

   Response: A grade separated system was rejected at the outset by the public and City Council as being too costly and unsightly.

9. *I have a information sheet here from the Futrix Corporation System 21. And they are constructing a monobeam system in Charleston, South Caroline, in which only – the base is only six feet across, and it then carries a capacity system in both directions.*

   Response: Selection of a Locally Preferred Alternative has already been made.

10. *Well, anyway, I just want to say that I think thet – one last thing – this is important. That the State Legislature yesterday passed a resolution that states a current resolution, asking the Governor to appoint a task force to look into having a light rail system instead of this. And so this project does not have the support of State Legisleture, and I thought you might want to know that.*

    Response: House Concurrent Resolution (HCR) No. 112, and its companion measure, Senate Concurrent Resolution (SCR) No. 142 were both initiated by House Transportation Vice-Chairman Rep. Willie Espero of Ewa Beach. The resolutions request the Governor to convene a task force to reassess the feasibility of establishing a light rail system to alleviate the increased traffic problems on Oahu, review the plans and work already completed as a base of information to avoid duplication of effort, and reassess the need for a light rail system, identify available resources for planning and construction, including federal funds, and consider new designs and systems. The resolutions do not refer to BRT in any of the text, and neither support or oppose a BRT project. Both resolutions passed this Legislative session.

We will send you a CD-ROM copy of the Finel Environmental Impact Statement (FEIS) under seperate cover. If you require a printed copy of the FEIS, please contact Felth Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00573

November 13, 2002

Mr. Keith Hamada
Leeward Oahu Transportation
Management Association
700 Bishop Street, Suite 1928
Honolulu, Hawaii. 96813

Dear Mr. Hamada:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm testifying in support of BRT, representing Leeward Oahu Transportation Management Association.*

   Response: Thank you for attending the April 20, 2002 public hearing and for supporting the project.

2. *The BRT was born out of the Trans 2K process that consisted of over 100 public meetings and thousands of citizens. Those citizens acknowledged that we have a traffic problem and took it to task to find a solution. The BRT is that solution. To put it simply, we feel that the BRT will increase mobility and improve transportation options for the island of Oahu.*

   Response: We concur. The community involvement process for the project has been extensive.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

TPS102-1904

TO: **Ms. Cheryl D. Soon, Director**
Department of Transportation Services
City & County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

FROM: J. Thomas Heinrich JTH
Attorney at Law
2426 Armstrong Street
Honolulu, Hawaii 96822-1932
Tel 808-988-3469
Fax 808-988-6689

RECEIVED
02 MAY 9 P 3:39
DIRECTOR'S OFFICE
DEPT. OF
TRANSPORTATION SERVICES

DATE: May 7, 2002

RE: Comments Concerning the **Primary Corridor Transportation Project** Supplemental Draft Environmental Impact Statement (March 2002)

Aloha! I offer these comments in my individual capacity only and not as Chair of the Manoa Neighborhood Board No. 7, as the Board has not taken any official action concerning (1) the Primary Corridor Transportation Project, (2) Bus Rapid Transit (**BRT**) as the "Locally Preferred Alternative" (**LPA**), or (3) the Supplemental Draft Environmental Impact Statement (**SDEIS**).

While this discussion is offered in my individual capacity only, the following information and evaluations are based in part on my service as: (1) Chair of the Manoa Neighborhood Board No. 7 from June 1999 to the present; (2) a participant in the Oahu Trans 2K program; (3) a participant in various traffic calming working groups; (4) a participant in the Mid-Town/University Working Group for the Primary Corridor Transportation Project; (5) a participant and leader of Vision Team 10: Makiki-McCully-Mo'ili'ili-Manoa, part of the City & County of Honolulu's Community Visioning Program; (6) a charter member of the Ala Wai Watershed Association Board of Directors from 1999 to the present; (7) a charter member of the community organization Malama o Manoa Board of Directors from 1992-2000; (8) a member of the non-voting Malama o Manoa Board of Advisors from 2001 to the present; (9) Chair of the Malama o Manoa Planning Committee from 1998 to the present; and (10) a participant in the University of Hawaii Strategic Planning initiative.

Personal Support for BRT. I support the Refined Bus Rapid Transit Alternative as set forth in the SDEIS, especially as compared to the No-Build Alternative and Transportation System Management Alternative.

I recognize and appreciate the contributions of the 5 Working Groups in proposing BRT adjustments, especially as I was a participant in the Mid-Town/University Working Group which recommended one of the major refinements addressed in the SDEIS (rerouting a short section of the University of Hawaii-Manoa (UH-Manoa) In-Town BRT alignment from Ward Avenue to Pensacola Street).

Recommendation 1. However, recognizing that "the devil will be in the details" and refinement of the BRT alternative must continue as the planning and implementation phases progress, **I strongly recommend that the planning consultants together with representatives from the respective neighborhood areas literally walk each segment of the proposed branch alignments** in order to (1) verify the accuracy and details of the

existing conditions and proposed project elements as represented in the preliminary drawings included in the SDEIS, and (2) gather specific "local knowledge" concerning the actual traffic, parking, and driver behavior conditions along the proposed branch routes, and suggestions for refinements at specific locations along the same.

As an example, in order to address questions raised by the McCully/Mo'ili'ili Neighborhood Board No. 8 concerning apparent inconsistencies between representations made in presentations to the Board and what appears in the SDEIS regarding the loss or relocation of trees, removal of on-street parking stalls, and other adjustments, 3 members of the Mid-Town/University Working Group and/or McCully/Mo'ili'ili Neighborhood Board No. 8 met with 3 of the project consultants on Thursday morning April 18, 2002 to walk the length of University Avenue for the purposes of evaluating (1) existing conditions; (2) traffic patterns; (3) intersection movements; (4) impacts on trees and on-street parking; and (5) the relationship of the BRT proposal to other coincidental, contemporaneous planning and development activities in the area, which offer opportunities for public and private partnering to improve the quality of life in the area.

The results of the April 18, 2002 walk included the correction of errors and identification of omissions on respective drawings of the Kapiolani Boulevard and University Avenue areas, and the refinement of turning movement proposals at several intersections.

Recommendation 2. Consistent with the recommendation stated above, and to ensure continued public involvement within the Primary Corridor Transportation Project (**PCTP**) process, would be the continuation and expansion of the working groups as "community advisors" to meet periodically and remain first-hand informed about the progress and implementation of the PCTP in their areas.

The results of the Mid-Town/University Working Group's efforts included the major refinement of rerouting a section of the University of Hawali-Manoa In-Town BRT alignment from Ward Avenue to Pensacola Street, thereby improving the planned service to the medical facilities, businesses, schools, Blaisdell Center, and residents of the area, and avoidance of unnecessary problems had the route remained on Ward Avenue. Less major refinements included: (1) relocation of the transit stops in "downtown Mo'ili'ili" between the H-1 Freeway and South King Street; (2) retention of the median strip and majority of street trees on University Avenue between South King Street and Kapiolani Boulevard; and (3) confirmation of and adjustments to Sinclair Circle and vicinity as the UH-Manoa terminus.

Partnering Opportunities. The Primary Corridor Transportation Project offers a tremendous opportunity to foster potential public and private partnering relationships between the BRT proposal and other coincidental, contemporaneous planning and development activities to improve the quality of life and overall vitality in the respective neighborhood areas along the branch alignments.

As an example, the importance of BRT service along the University Avenue corridor and the infrastructure improvements necessary for the implementation of the Refined BRT Alternative create both challenges and opportunities to improve that area of Mo'ili'ili – especially the connection between the University of Hawaii campus and the "Varsity/Puck's Alley" area. Several ideas have been expressed recently concerning how to overcome the

H-1 Freeway barrier and provide safe and attractive pedestrian and bicycle connections which do not conflict with vehicular traffic – including at-grade pass-through tunnels under H-1. If this central makai area of the "University Town Center" is to succeed in the future, then safe, convenient, and attractive access must be provided and the existing barriers transformed or otherwise overcome.

Oahu Trans 2K Context. The Refined BRT Alternative is just one part of the overall "Oahu Trans 2K" transportation improvement program effort which has relied on tremendous community participation. To focus on only one other component of the multi-faceted effort, especially as it relates to the relationship with BRT, is the on-going program to redesign the route system of TheBus in order to rely on a "hub and spoke" system which will provide better connections within and between districts. Circulator routes within specific areas (such as Manoa Valley) and better connections to hubs which connect to express, inter-district, and larger intradistrict routes are in the design stage and include significant community participation to determine the needs, preferences, and priorities of service.

Generally Expressed Concerns. At this time in the process, the three most expressed concerns regarding the Refined BRT Alternative seem to be the following.

1. Exclusive Lanes. The effect of creating exclusive lanes for BRT use, especially in the Dillingham Boulevard, Kapiolani Boulevard, University Avenue, and Waikiki areas. For BRT to work effectively, there are several areas where exclusive lanes must be instituted. As a part of the larger Oahu Trans 2K context, with a coordinated long-term educational campaign, and with the above recommendations to (1) keep and expand the working groups as an integral part of the PCTP program and (2) to walk the entire length of the various alignments with representatives of the respective neighborhoods, many of the anticipated problems with the implementation of exclusive lanes may be avoided.

2. Effect on Mauka-Makai Traffic Flow. For all of transportation to work effectively, the improvements to Ewa to Koko Head (west to east) linear traffic flow cannot be allowed to further slow or degrade the level of service of the already painfully congested and aggravatingly slow mauka-makai (north-south) traffic during commute times. Adjustments to capacity, traffic signal timing, implementation of the switch in directions of the mauka portions of Piikoi and Pensacola streets, etc., must be a coordinated effort to benefit the total traffic flow, not just BRT; and transformation of TheBus route system to the hub and spoke model must serve to reduce vehicle use by making public transit more accessible, more efficient, and more economical.

3. Financial Plan. More explanation of the financial plan is needed to educate the community as to the total cost of the Refined BRT Alternative, the potential share of federal funds to be available for the program, and that no increase in taxes is necessary to implement BRT as proposed. Opportunities for private transportation services in addition to public transit remain and should be broadened to better serve the needs of all of our residents and visitors.

Issue of Honolulu's Credibility with Federal Agencies. Due to the past two decisions (the last about 1993) of the Honolulu City Council to <u>not</u> proceed with the then proposed versions of a mass transit system for urban Oahu, even when a larger share (about 80/20) of federal funds was then available compared to today (about 60/40), I believe that a fundamental issue in this Primary Corridor Transportation Project process, and the

competitive process which must be successfully navigated in order to qualify for federal funds, is the credibility of the City & County of Honolulu with the responsible federal agencies – the Federal Transit Administration and Federal Highway Administration of the United States Department of Transportation.

The merits and demerits of the previous "rail-based" proposals are now moot. A new day has arrived concerning what type of mass transit project will be considered, how much federal funding may be available, and the more competitive process used to determine whether a project will qualify for a portion of the limited federal funds. The project elements, manner of implementation, flexibility for accommodating changes, and manner of funding of the current proposal are now at issue.

Honolulu is one of the few cities on Earth with a geographic layout, especially in the primary urban area, that concentrates the population in a manner that would be efficiently served by a linear mass transit system. By the 2000 Census results, Honolulu remains the 11th largest metropolitan area in the United States.

The question of **what type** of mass transit system is appropriate, acceptable, affordable, adaptable (from day one -- whether related to ease of route adjustments, system expansion, vehicle type, or energy source (petroleum, electricity, fuel cell)), and sustainable seems to have been responsibly resolved.

The question of **when** any mass transit system, as distinguished from the present bus system alone, may be adopted by action of the Honolulu City Council and subsequently implemented is now under consideration by that legislative body.

The question of **accessibility** to the mass transit system must be evaluated in the scope of the overall transportation system improvements being addressed in the Oahu Trans 2K program (hub and spoke, circulator routes, information technologies, bicycle routes, etc.).

The question of **how much can we afford** for the development of a mass transit system, whether the Refined BRT Alternative or any other proposal, is a policy and economic question that remains to be determined, yet seems to also have been responsibly resolved by the financial analysis presented in Chapter 6 of the SDEIS. It may be difficult to afford in relation to all of our other needs as a metropolis, but we cannot afford not to develop a responsible mass transit system for our residents, visitors, and economic future. I especially look to the experience of Vancouver, British Columbia with its variety of land and water transportation modes that effectively serve residents and visitors alike.

With the continuation of the Primary Corridor Transportation Project, the selection of the Bus Rapid Transit Alternative as the Locally Preferred Alternative by the Honolulu City Council, and the project's imminent review in the competitive process for federal funds, the credibility of the City & County of Honolulu is at stake to "stay the course" and remain committed to the continued refinement and implementation of the BRT alternative in the near-term.

Failure as a community to do so will surely and understandably cause the federal agencies involved to politely defer or otherwise refuse any further consideration of Honolulu for any funding related to mass transit system needs. Using a baseball analogy, by the City & County of Honolulu's ultimately deciding not to proceed on two earlier mass transit

proposals, a third decision not to proceed after this much study (practice) and time at the plate will certainly mean "one, two, three strikes -- you're out!" for the indefinite future. That would not be in the best interests of our people.

Much work remains to be done in order to proceed with the Primary Corridor Transportation Project and the implementation of the Refined Bus Rapid Transit Alternative. As stated above, "the devil will be in the details," and I look forward to participating in the resolution of those details.

Thank you for considering these comments in relation to the SDEIS and the continued progress on the Primary Corridor Transportation Project.

Tom Heinrich

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CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

Mr. J. Thomas Heinrich
2426 Armstrong Street
Honolulu, Hawaii 96822

Dear Mr. Heinrich:

Subject: Primary Corridor Transportation Project

This responds to the comments you made on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to the oral comments your made regarding the MIS/DEIS at the October 5, 2000 Special Transportation Committee Meeting, the October 12, 2000 MIS/DEIS Public Hearing and the your oral testimony at the October 26, 2000 Special Transportation Committee Meeting. Part B responds to the oral comments you made at the SDEIS April 20, 2002 Public Hearing and your May 7, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *I personally do support the Bus Rapid Transit alternative based on the flexibility toward the long term as well as the cost elements. Having the greatest return and would support the BRT as a Local Preferred Alternative by the time that the Council gets to having to make that selection.*

   Response: Thank you for supporting the project.

2. *I also appreciate that the Sand Island Parkway has been sepereted from this portion of the process. I think it is a critical element in a long-term transportation improvements for the City and County of Honolulu but is not a necessary element of this slice of that process.*

   Response: Comment noted.

3. *The need to correlate part of this presentation to the other changes to the existing bus system through other elements of the Oahu Trans 2K and as well part of that is based on the present success of the CityExpress! Route A that connects to the University but also how future relationships with the existing Rainbow shuttle, Kapahulu trolley, etc. would also tie into the BRT.*

   Response: The elements of the PCTP are being coordinated with other transportation alternatives as mentioned in the commant.

4. *Also important here is the relationship to the ongoing revision process to the primary urban center development plan particularly as the PUC DP includes references to developing "neighborhood plans." And one of the key elements there being trying to avoid the division of existing neighborhoods by yet additional highways or major transportation constructs.*

Response: The major elements of the In-Town BRT will use existing streets and the travel way would be all at-grade (i.e., street level). Therefore, no neighborhood would be physically or visually divided. The transit stops will not divide the neighborhoods, to the contrary these stops have the potential to be places where community members from different neighborhoods come together.

5. *Two more points here. That is, the devil will be in the details even as Mr. Bennett was suggesting and there is the need for continued community meetings as we move through the process in order to move from the most general to the very specific in our area. Do we go up Isenberg? Do we stay on Kapiolani? Do we go on University Avenue? Is the terminus at Market City or Puck's Alley or Sinclair Circle, etc. And there are many aspects of that.*

   Response: DTS agrees that continued community involvement is very important and is committed to obtain community input throughout the remaining phases of the project. However, when the Honolulu City Council passed a resolution that identified the BRT Alternative as the "locally preferred alternative" (LPA), it generally chose the basic alignment described in the MIS/DEIS. There are slight modifications to the alignment that are described in the Supplemental Draft Environmental Impact Statement (SDEIS) including a Kakaako Makai branch, modification of the UH-In-Town Branch and addition of access ramps to H-1 near Aloha Stadium. These modifications were a result of comments to the MIS/DEIS and project refinements identified by the working area groups comprised of community members.

6. *My personal preference is for the Bus Rapid Transit Alternative as discussed in the document as I find that the No-Build or no-action alternative is unacceptable in relation to our present situation. The Transportation System Management alternative is insufficient. And the Bus Rapid Transit at this point would be more flexible.*

   Response: Thank you for supporting the project.

7. *But I also incorporate some of Callan, Dennis's comments, that there are other things that still need to be considered in terms of the final technology and the final implementation of whatever rapid transit system ultimately is implemented.*

   Response: Many factors will be considered in selecting the long-term technology.

8. *As well as appreciated by the present document is the commitment to avoid any new taxes and to maximize the Federal funding sources under the present proposal. Also appreciated is the separation of the Sand Island Parkway component and placement of that into the seperate Oahu Regional Transportation Plan process.*

   Response: Comment noted.

9. *What is certainly likely to be the most important test to continue is the need for additional community-based and community-specific needs as the difference will be in the detail for the ultimate implementation of whatever rapid transit system.*

   Response: DTS agrees that continued community involvement is very important and is committed to obtain community input throughout the remaining phases of the project.

10. *My particular interest or area of interest obviously is the Manoa/McCully/Moiliili area. And here there are a host of questions concerning which main routes – Isenberg, University, etc. – should be used, what transit centers or where should the transit centers be located; nothing that Market City or other aspects of Kaimuki or even Kapiolani Community College are not addressed by this proposal.*

    Response: The UH-Manoa BRT branch traverses Kapiolani Boulevard and University Avenue passing through the McCully/Moiliili community before reaching UH-Manoa. Proposed transit stop locations are the Isenberg Stop, University/King Stop and University of Hawaii – Manoa (UH) stop. Local buses and circulator routes will interface with the BRT alignment and will continue to service other areas of Kaimuki, Market City and Kapiolani Community College.

11. *Also, I note that, in particular, the Chapter Two area of the DEIS could be beefed up in terms of including additional information about the relationship of this proposal to the other bus route changes that are being considered under Oahu Trans 2K and as well as additional information concerning the other transportation bikeway, park, and beautification efforts that are ongoing, and as well in relationship to the Primary Urban Center Development Plan Revision process.*

    Response: The proposed bus route changes can be obtained from the City's Oahu Transportation Services Department. Details on bikeway modifications are described in the Honolulu Bicycle Master Plan. The City's Department of Parks and Recreation can be contacted to obtain information regarding park and beautification projects.

    The Refined LPA is evaluated in the FEIS as being consistent with the Public Review Draft of the PUC DP (June 1999), as it relates to the "high capacity transit corridors" and "urban villages" concepts. These concepts are supportive of and consistent with the type of transportation improvements provided by the Refined LPA. The In-Town BRT is designed to support current land uses and help shape future uses particularly in vacant and underutilized parcels in Kakaako, Iwilei, and near Ala Moana Center and the Convention Center. These are the locations where development is likely to occur with or without the BRT project.

12. *Also, I'd particularly note that on page 2-43, there are some specific but very vague references to State Department of Transportation, I'll say, suggest improvements for the Punahou to 6th Avenue of the H-1 corridor, and that as well should be further spelled out in relationship to the BRT.*

    Response: The suggested improvements on H-1 between Punahou Street and 6th Avenue are not part of the scope of the BRT project, they are addressed in OMPO's TOP 2025.

13. *In this way, I support the BRT as a locally preferred alternative, upon completion of the Final EIS and thorough preparation of the – as we proceed here for the Federal Transit Administration's national grant competition process.*

    Response: Thank you for supporting the project.

14. *I do support the Bus Rapid Transit alternative as the Locally Preferred Alternative.*

    Response: Thank you for supporting the project.

15. *In the past couple of weeks following the first hearing at the Convention Center, some of the concerns that I have heard well express either to me or in some of the community meetings and not at these hearings had to do with, again, the location of the transit centers, the locations of some of the main elements of the routes in the Manoa /University /McCully /Moiliili area. We're particularly concerned about whether it is a King Street or Kapiolani or Isenberg/University type of placement. Those are questions to be determined later but especially as Director Cheryl Soon referenced earlier this evening, it is a matter that the community-based elements of this planning certainly must continue and that is really going to be what makes any alternative successful.*

    Response: The proposed transit centers will undergo their own independent environmental review process to address their related impacts and mitigation measures. At that time, details about individual transit centers' specific locations, physical characteristics and operations will be addressed.

    When the Honolulu City Council passed a resolution that identified the BRT Alternative as the "locally preferred alternative" (LPA), it generally chose the basic alignment described in the MIS/DEIS. There are slight modifications to the alignment that are described in the Supplemental Draft Environmental Impact Statement (SDEIS) including a Kakaako Mokai branch, modification of the UH-In-Town Branch and addition of access ramps to H-1 near Aloha Stadium. These modifications resulted from comments to the MIS/DEIS and project refinements identified by the working area groups comprised of community members.

    DTS agrees that continued community involvement is very important and is committed to obtain community input throughout the remaining phases of the project.

16. *The other element both for the Committee, I believe, and as this process continues is what I'll simply call the overlay of GIS information. My short way of saying this is not simply a single element in the overall problem. Coordination with State DOT, particularly for references in the Draft Environmental Impact Statement to a Manoa interchange to changes for the Vineyard/Lunalilo area. Those simply cannot be completely ignored regardless whether they are looking TSM or BRT, etc.*

    Response: The TOP 2025 project looked at the combined highway and transit needs in the future and the resultant plan comprises a multi-model transportation system for the future. The impact analyses in this FEIS reflect the TOP 2025 highway projects when matched in combination with the three transit Alternatives (No-Build, TSM and Refined LPA).

17. *With my other written testimony that I'll be submitting the key is that I personally do support the BRT but it must be worked out with the rest of those ____ details. For instance, with the University of Hawaii, which is concerned as to the terminus not being at the Sinclair Circle but rather a little bit further mauka to co-relate to the Metcalf intersection and other opportunities in that area. There is considerable concern about, not concern about the success of Route A, but rather for the improvements that are presently needed at that Sinclair half-circle that as the buses must re-enter the flow they must cross three lanes of traffic and then go in either direction. There are longer term co-relations to the University campus master plan and other potential University and private development opportunities on a very small scale at that location of the Metcalf and University intersection. If you're familiar with the area, there used to be a Burger King there. That finally closed. And what tried after that has not made it successful. Similar to many other University areas, there is not an immediate nearby small scale student commercial section. So, that's one of the alternatives being looked at for literally half a block mauka.*

    Response: Thank you for supporting the project. The design treatments at Sinclair Circle have been discussed in the Mid-Town/University Working Group and with UH-Manoa facilities personnel.

Part B – SDEIS Comments

18. *I'm speaking briefly here in my individual capacity and not as chair of the Manoa Neighborhood Board No. 7. The Manoa Neighborhood Board, as a board, has not taken a position on BRT, but I and several other members have been participants in the Mid-Town/University Working Group as part of this overall effort.*

    Response: . Comment noted.

19. *For especially this project, the scope of this project, of course, the devil will be in the details.*

    Response: The DTS will continue working with the neighborhood boards, agencies, organizations, and citizens throughout project development, design, and implementation.

20. *You've heard a number of the major concerns already. They include the mauka-makai interference because of not being really aware of how the pieces of the larger puzzle of Oahu Trans 2K will fit together, particularly with the hub-and-spoke considerations and the circulator routes. So we're not really sure what that overall picture is just yet. I do understand, however, and as John Steelquist has mentioned, that there are beginning to be some presentations and meetings in the Makiki, McCully, Moiliili, Manoa area for the next many months in order to address finally that portion of Oahu Trans 2K in our area of Honolulu*

    Response: Meetings on conversion of the existing bus system to hub-and-spoke are scheduled to begin in FY 2003.

21. *I would encourage, as a major point here, your continued work by the Department of Transportation Services and its consultants on this project with all of the communities along the route. As an example, it was just this past Thursday, two days ago, that several of us were finally able to meet with several of the consultants in order to walk along University Avenue between H-1 and Kapiolani Boulevard in order to take a very specific look and a refined look at what trees are in danger, what exactly the parking loss will be, what the other turn movement impacts will be?*

    Response: The DTS and its consultants will continue working with communities along the route, through the remainder of the planning phase, and through design and construction. Tree, parking, and traffic impacts are all being addressed throughout consultation with agencies, community organizations, and residents.

22. *Because those that joined us are those that have lived there for a long time. And in that respect, it is this type of local knowledge along every portion of the route that is not yet reflected in the Supplemental Draft EIS. A large amount of work has already gone into that, and the Mid-Town/University Working Group did, as well, come up with one of the major changes, moving part of the U.H. branch from Ward Avenue to Pensacola Street.*

    Response: We concur that local knowledge is invaluable in project planning and design. The SDEIS is based on changes as a result of community involvement, one of which was the alignment change from Ward Avenue to Pensacola Street.

23. *One of the major points here is that there also exists many other opportunities for public and private partnering in relation to transportation in general and Bus Rapid Transit in particular.*

    Response: The DTS recognizes the value of involving the citizens in public transit and plans to continue their involvement.

24. *As the University of Hawaii is our biggest neighbor in the Manoa Neighborhood Board district, it's a matter that we have to deal with a neighbor that is, on a weekday basis, having a larger population than Hilo or Kahului or Lihue. In that respect, also the rest of those effects affect the surrounding neighborhood in terms of the commuter parking.*

    Response: The PCTP is an effort to address traffic and parking congestion issues such as the one you described around the University area. By providing a transit alternative to major destinations such as UH, DTS intends to help alleviate the traffic congestion caused in part by the constraints of existing roadways.

25. *So I will submit other things in writing. But I'm in support of the Bus Rapid Transit, so long as the community continues to be greatly involved in being able to evaluate every detail along the way by the continuation of working groups and their expansion.*

    Response: Thank you for attending the public hearing, sharing your thoughts, and supporting the project. We will continue to involve the public throughout project development and implementation.

26. *I support the Refined Bus Rapid Transit Alternative as set forth in the SDEIS, especially as compared to the No-Build Alternative and Transportation System Management Alternative.*

    I recognize and appreciate the contributions of the 5 Working Groups in proposing BRT adjustments, especially as I was a participant in the Mid-Town/University Working Group which recommended one of the major refinements addressed in the SDEIS (rerouting a short section of the University of Hawaii-Manoa (UH-Manoa) In-Town BRT alignment from Ward Avenue to Pensacola Street).

    Response: Thank you for your support and participation in the project.

27. *However, recognizing that "the devil will be in the details" and refinement of the BRT Alternative must continue as the planning and implementation phases progress, I **strongly recommend that the planning consultants together with the representatives from the respective neighborhood areas literally walk each segment of the proposed branch alignments** in order to (1) verify the accuracy and details of the existing conditions and proposed project elements as represented in the preliminary drawings included in the SDEIS, and (2) gather specific "local knowledge" concerning the actual traffic, parking, and driver behavior conditions along the proposed branch routes, and suggestions for refinements at specific locations along the same.*

    As an example, in order to address questions raised by the McCully/Moiliili Neighborhood Board No. 8 concerning apparent inconsistencies between representations made in presentations to the Board and what appears in the SDEIS regarding the loss or relocation of trees, removal of on-street parking stalls, and other adjustments, 3 members of the Mid-Town/University Working Group and/or McCully/Moiliili Neighborhood Board No. 8 met with 3 of the project consultants on Thursday morning April 18, 2002 to walk the length of University Avenue for the purposes of

evaluating (1) existing conditions; (2) traffic patterns; (3) intersection movements; (4) impacts on trees and on-street parking; and (5) the relationship of the BRT proposal to other coincidental, contemporaneous planning and development activities in the area, which offer opportunities for public and private partnering to improve the quality of life in the area.

The results of the April 18, 2002 walk included the correction of errors and identification of omissions on respective drawings of the Kapiolani Boulevard and University Avenue areas, and the refinement of turning movement proposals at several intersections.

Response: The DTS and its consultants will continue working with communities along the route, through the remainder of the planning phase, and through design and construction. Your recommendation to walk each segment together with community representatives is duly noted and will be considered on a case-by-case basis. In any case, designers will perform detailed field reconnaissance of each segment during the design phase.

28. *Consistent with the recommendation stated above, and to ensure continued public involvement within the Primary Corridor Transportation Project (PCTP) process, would be the continuation and expansion of the working groups as "community advisors" to meet periodically and remain first-hand informed about the progress and implementation of the PCTP in their areas.*

    The results of the Mid-Town/University Working Group's efforts included the major refinement of rerouting a section of the University of Hawaii-Manoa In-Town BRT alignment from Ward Avenue to Pensacola Street, thereby improving the planned service to the medical facilities, businesses, schools, Bleisdell Center, and residents of the area, and avoidance of necessary problems had the route remained on Ward Avenue. Less major refinements included: (1) relocation of the transit stops in "downtown Moiliili" between the H-1 Freeway and South King Street; (2) retention of the media strip and majority of street trees on University Avenue between South King Street and Kapiolani Boulevard; and (3) confirmation of and adjustments to Sinclair Circle and vicinity as the UH-Manoa terminus.

    Response: It is the City's intent to have the already established working groups continue to provide input to the project during final design and construction.

29. *The Primary Corridor Transportation Project offers a tremendous opportunity to foster potential public and private partnering relationships between the BRT proposal and other coincidental, contemporaneous planning and development activities to improve the quality of life and overall vitality in the respective neighborhood areas along the branch alignments.*

    As an example, the importance of BRT service along the University Avenue corridor and the infrastructure improvements necessary for the implementation of the Refined BRT Alternative create both challenges and opportunities to improve that area of Moiliili – especially the connection between the University of Hawaii campus and the "Varsity/Puck's Alley" area. Several ideas have been expressed recently concerning how to overcome the H-1 Freeway barrier and provide safe and attractive pedestrian and bicycle connections which do not conflict with vehicular traffic – including at-grade pass-through tunnels under H-1. If this central makai area of the "University Town Center" is to succeed in the future, then safe, convenient, and attractive access must be provided and the existing barriers transformed or otherwise overcome.

    Response: We concur.

30. ***Oahu Trans 2K Context.*** *The Refined BRT Alternative is just one part of the overall "Oahu Trans 2K" transportation improvement program effort which has relied on tremendous community participation. To focus on only one other component of the multi-faceted effort, especially as it relates to the relationship with BRT, is the on-going program to redesign the route system of TheBus in order to rely on a "hub and spoke" system which will provide better connections within and between districts. Circulator routes within specific areas (such as Manoa Valley) and better connections to hubs which connect to express, inter-district, and larger intradistrict routes are in the design stage and include significant community participation to determine the needs, preferences, and priorities of service.*

    Response: DTS has converted the City's bus routes in the Leeward area to hub-and-spoke, and is in the process of converting the routes in Central Oahu and North Shore. The Primary Urban Center will be the next area where hub-and-spoke planning and restructuring will occur. Your neighborhood board will be informed of hub-and-spoke meetings in your community

31. ***EXCLUSIVE LANES.*** *The effect of creating exclusive lanes for BRT use, especially in the Dillingham Boulevard, Kapiolani Boulevard, University Avenue, and Waikiki areas. For BRT to work effectively, there are several areas where exclusive lanes must be instituted. As a part of the larger Oahu Trans 2K context, with a coordinated long-term educational campaign, and with the above recommendations to (1) keep and expand the working groups as an integral part of the PCTP program and (2) to walk the entire length of the various alignments with representatives of the respective neighborhoods, many of the anticipated problems with the implementation of exclusive lanes may be avoided.*

    Response: We concur.

32. ***Effect on Mauka-Makai Traffic Flow.*** *For all transportation to work effectively, the improvements to Ewa to Koko Head (west to east) linear traffic flow cannot be allowed to further slow or degrade the level of service of the already painfully congested and aggravatingly slow mauka-makai (north-south) traffic during commute times. Adjustments to capacity, traffic signal timing, implementation of the switch in directions of the mauka portions of Piikoi and Pensacola streets, etc., must be a coordinated effort to benefit the total traffic flow, not just BRT; and transformation of TheBus route system to the hub and spoke model must serve to reduce vehicle use by making public transit more accessible, more efficient, and more economical.*

    Response: We concur.

33. ***Financial Plan.*** *More explanation of the financial plan is needed to educate the community as to the total cost of the Refined BRT Alternative, the potential share of federal funds to be available for the program, and that no increase in taxes is necessary to implement BRT as proposed. Opportunities for private transportation services in addition to public transit remain and should be broadened to better serve the needs of all of our residents and visitors.*

    Response: The public information process will continue and will include expanded discussions on the financing plan. DTS has told the private transit providers that the City wants to work together to identify ways to utilize private carriers to provide some of the services in the hub-and-spoke network.

34. ***Issue of Honolulu's Credibility with Federal Agencies.*** *Due to the past two decisions (the last about 1993) of the Honolulu City Council to not proceed with the then proposed versions of a mass transit system for urban Oahu, even when a larger share (about 80/20) of federal funds was then available compared to today (about 60/40), I believe that a fundamental issue in this Primary Corridor Transportation Project process, and the competitive process which must be successfully navigated in order to qualify for federal funds, is the credibility of the City & County of Honolulu with the responsible federal agencies – the Federal Transit Administration and Federal Highway Administration of the United States Department of Transportation.*

    The merits and demerits of the previous "rail-based" proposals are now moot. A new day has arrived concerning what type of mass transit project will be considered, how much federal funding may be available, and the more competitive process used to determine whether a project will qualify for a portion of the limited federal funds. The project elements, manner of implementation, flexibility for accommodating changes, and the manner of funding of the current proposal are now at issue.

    Response: The project has been developed with every intent of avoiding the pitfalls of past failed efforts.

35. *Honolulu is one of the few cities on Earth with a geographic layout, especially in the primary urban area, that concentrates the population in a manner that would be efficiently served by a linear mass transit system. By the 2000 Census results, Honolulu remains the 11th largest metropolitan area in the United States.*

    Response: Comment noted.

36. *The question of **what type** of mass transit system is appropriate, acceptable, affordable, adaptable (from day one – whether related to ease of route adjustments, system expansion, vehicle type, or energy source (petroleum, electricity, fuel cell)), and sustainable seems to have been responsibly resolved.*

    Response: Comment noted.

37. *The question of **when** any mass transit system, as distinguished from the present bus system alone, may be adopted by action of the Honolulu City Council and subsequently implemented is now under consideration by that legislative body.*

    Response: Comment noted.

38. *The question of **accessibility** to the mass transit system must be evaluated in the scope of the overall transportation system improvements being addressed in the Oahu Trans 2K program (hub and spoke, circulator routes, information technologies, bicycle routes, etc.).*

    Response: The Refined LPA has been developed to be compatible with and in the context of all of the island-wide improvements planned for the bus, highway, bicycle, and pedestrian systems.

39. *The question of **how much can we afford** for the development of a mass transit system, whether the Refined BRT Alternative or any other proposal, is a policy and economic question that remains to be determined, yet seems to also have been responsibly resolved by the financial analysis presented in Chapter 6 of the SDEIS. It may be difficult to afford in relation to all of our other*

needs as a metropolis, but we cannot afford not to develop a responsible mass transit system for our residents, visitors, and economic future. I especially look to the experience of Vancouver, British Columbia with its variety of land and water transportation modes that effectively serve residents and visitors alike.

Response: Comment noted.

40. *With the continuation of the Primary Corridor Transportation Project, the selection of the Bus Rapid Transit Alternative as the Locally Preferred Alternative by the Honolulu City Council and the project's imminent review in the competitive process for federal funds, the credibility of the City & County of Honolulu is at stake to "stay the course" and remain committed to the continued refinement and implementation of the BRT alternative in the near term.*

    Failure as a community to do so will surely and understandably cause the federal agencies involved to politely defer or otherwise refuse any further consideration of Honolulu for any funding related to mass transit system needs. Using a baseball analogy, by the City & County of Honolulu's ultimately deciding not to proceed on two earlier mass transit proposals, a third decision not to proceed after this much study (practice) and time at the plate will certainly mean "one, two three strikes – you're out!" for the indefinite future. That would not be in the best interests of our people.

    Response: We concur with your comment.

41. *Much work remains to be done in order to proceed with the Primary Corridor Transportation Project and the implementation of the Refined Bus Rapid Transit Alternative. As stated above, "the devil will be in the details," and look forward to participating in the resolution of those details*

    Response: Thank you for your support. See response to comment #28.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under seperate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

Ms. Cheryl Soon, Director
Department of Transportation Services
City & County of Honolulu

Dear Ms. Soon:

Traffic in Honolulu has become such a hot item of discussion: increase in car population leads to increase in freeway improvements which leads to more traffic; or high demand for parking in such limited areas; or increase in traffic accidents. The BRT program may not take care of these problems at one time, but it does start addressing the problem by getting more cars off the road. It is a system implemented by other major mainland cities. It will provide a safe and efficient method of transportation for the community.

It is not something that will be a cure-all and transform our community in just one quick swoop. It will take time and willingness from the entire community for this to succeed. I feel it's a great step forward. Therefore, I am in support of this type of system.

Sincerely,

Kathleen Higa

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
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CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00574

November 13, 2002

Ms. Kathleen Higa
876 Curtis Street, #2806
Honolulu, Hawaii 96813

Dear Ms. Higa:

Subject: Primary Corridor Transportation Project

This is in response to your April 20, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *Traffic in Honolulu has become such a hot item of discussion: Increase in cer population leads to increase in freeway improvements which leads to more traffic; or high demand for parking in such limited areas; or increase in traffic accidents.*

   Response: Comment noted.

2. *The BRT program may not take care of these problems at one time, but it does start addressing the problem by getting more cars off the road. It is a system implemented by other major mainland cities. It will provide a safe and efficient method of transportation for the community.*

   Response: We concur. Thank you for supporting the BRT project.

3. *It is not something that will be a cure-all and transform or community in just one quick swoop. It will take time and willingness from the entire community for this to succeed. I feel it's a great step forward. Therefore, I am in support of this type of system.*

   Response: Again thank you for supporting the project. We agree that the BRT is one component of a greater public transportation system and will not solve all of Oahu's transportation problems, but will give citizens another option to driving a car.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00576

November 13, 2002

Mr. Paul Honzik
999 Wilder Avenue
Honolulu, Hawaii 96822

Dear Mr. Honzik:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I looked at this entire plan and find that there is misunderstandings as to why Waianae and Nanakuli are not included. Don't they count? Is there people who would be traveling in a great distance? Wouldn't the bus service serve them as well? What about the other side, Hawaii Kai? Don't they deserve the same treatment, same bus service? Or are they being left out because they would prefer to use their cars?*

   Response: There are bus routes from Waianae, Nanakuli, and Hawaii Kai in the Refined LPA.

2. *Then we look at also at H-2 and H-3. We have two beautiful highways which could pick up people from Mokuleia and also from Wahiawa. We have another highway that would service Kaneohe and Kailua, and we could have bus service to them as well. This kind of disturbs me why we only use selected areas and not the entire island. Because if people have to drive in from there, they're using their cars and do not have the benefit of your bus system. I mean, this disturbs me.*

   Response: The Refined LPA does not elimnate bus service to the areas mentioned.

3. *I also am disturbed about one other thing that I learned this morning, that the bus would travel down on King Street, and then it would reverse, or it would have another lane that would go up against traffic on the other side. This is what gentleman told me. So, thereby, King Street, which takes traffic out of town has five lanes. We would destroy 40 percent of the auto traffic that's now using it, because it would be unavailable because of your dedicated system. I don't see that planning here is very well thought about. And I'm sorry, but I oppose this idea greatly.*

   Response: The mauka curb lane of South King Street between Richard Street and Pensacola Street will be reallocated to Ewa-bound BRT vehicles. The makai curb lane of South King Street will function as a semi-exclusive lane, handling BRT vehicles, City buses, and vehicles turning right into cross-streets. Based on traffic analyses documented in the FEIS, South King Street would be able to handle these lane reallocations and the projected year 2025 travel demand within this segment.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: BARBARA L. HUDMAN

Representing: grass roots, common sense, against gambling with tax payers dollars

Address: 2333 Kapiolani Blvd. #2903
Hono., HI 96826

RECEIVED
2002 MAY 9 1:25
OFFICE OF TRANSPORTATION SERVICES

Please make any comments below:

I returned from San Diego, CA on 3/26 having been off isle for 9 mos. Living at the Marco Polo it has always been simple to pay a shuttle a tip then he drops me at the door. Optimisim prevailing there was no shuttle so six of us were on a large tour bus as this was Easter vacation. Living at the Marco Polo (being physically fit) I take the bus or walk to and from down town, Waikiki, the U of H; even up to Kaimuki. The first thing that caught my attention was the increase of tour busses; large and vans, trollys, the caterpillar and not to be left out but the many Rene-mobiles. Of course the Rene-mobiles are filled to cpacity but the others I don't believe I've even seen ten with more than a very few people on them. Before placing a limit on new business I would make a law stating that if a large bus is not half or more filled they must use a van. The Galleria double decker trolly came down the Ala Wai at 8:00 p.m Mon. nite; empty. Who besides the tourists are going to shop Waikiki at nite. They can walk. Another vastly irritating vehicle is the limo which keeps getting longer taking up another car's parking.

Over the past several years council members etc. have taken various trips all over the world at the tax payer's expense with this bus issue. All of a sudden a light bulb flashed on and the Express Bus was born. During school and business hours the Express was and still is a welcomed and needed choice. However, I have noticed on weekends that it;s empty, at night also.

May 6th

As a woman on the verge of a "political" nervouse break down if I re-wrote this mumbo-jumbo it would, no doubt, be worse in the deciphering dept. so have decided to just make a statement clearer and add a few comments.

I have become obsessed with looking into all vehicles etc. (public trans) for the past two weeks. Only once did the Wai'ki'i-Kapahulu Trolly have more than 3 passengers on it. At two different times in one eve the caterpillar or rollar coaster, whateva' you call it, had only 3 passengers. With the economy down why would tourists pay more when they can travel for less on the local bus?

Fri. nite I took the #3 from Hotel St.about 11:00 p.m. Once again, after Ala Moana Center there were 3 of us still on. I said to the driver: who needs BRT? A local guy replied: Yea, we're on a limo already! Perfect nswer or what!?!!

Being as the side walk merchants were given the heave ho along with the bike-buggies, a few years ago, I cannot understand why there isn't a limit imposed by the PUC. If the greed of the PUC is causing the traffic problem to what its become then the City should take over.

Every time I board the bus I ask the driver if they had been consulted about BRT. The reply: "NO!" Why arn't the people employed by the best bus service in the world included in the decision making. Oh, just another "under the table" way of doing business in Hawaii Nei.

The other eve I took the bus that went down Ala Moana Blvd. from ~~King~~ Bishop to Waikiki for the first time in ages. It was about 6:30 p.m. Tourists were asking the driver about the B bus. I interjected with: hey, this bus will get you there just fine; you don't need to change. The driver responded with: who was I to tell them what to do. Guess who ended up apologizing; me. It took about thirty or forty minutes bumper to bumper traffic. HOWEVER, the locals on the road should know to take Kapiolani Blvd. as traffic does always move on it.

To me the simple solution would be for Express busses at certain hours coming in from the furtherest parts of the island. A definite limit on tour busses, trollys, limos etc. With our economy as such if a business can't make it here they had better move on. Locals leave; immigrants arrive. They live differently. Are we going to be come Hong Kong? Singapore is out because one has to obey the law. If the, so called laws, "don't eed the birds," "don't remove grocery carts," "don't gamble," etc. fall on deaf ears you think our government can ban cars!?!! Give me a break.

If I had been on one of these past fruitless trips I would be so ashamed I would have paid my own way but, alas, there is no pride in corruption and greed.

Please excuse typing errors; ole Smth Corona still working.

Barbara Hudman

AR00015856

DEPARTMENT OF TRANSPORTATION SERVICES

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CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPDS/02-01884R

November 13, 2002

Ms. Barbara Hudman
2333 Kapiolani Boulevard, Apt. 2903
Honolulu, Hawaii 96826

Dear Ms. Hudman:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I returned from San Diego, CA on 3/26 having been off Isle for 9 months. Living at the Marco Polo it has always been simple to pay a shuttle a tip then he drops me at the door. Optimism prevailing there was no shuttle so six of us were on a large tour bus as this was Easter vacation. Living at the Marco Polo (being physically fit) I take the bus or walk to and from downtown, Waikiki, the U of H, even up to Kaimuki. The first thing that caught my attention was the increase of tour busses; large and vans, trolleys, the caterpillar and not to be left out but the many Rena-mobiles. Of course the Rena-mobiles are filled to capacity but the others I don't believe I've ever seen ten with more than a very few people on them. Before placing a limit on new business I would make a law stating that if a large bus is not half or more filled they must use a van. The Gellerie double decker trolley came down the Ala Wai at 8:00 p.m. Mon. nite; empty. Who besides the tourists are going to shop Waikiki at nite. They can walk. Another vastly irritating vehicle is the limo which keeps getting longer taking up another car's parking.*

   Response: Comment noted.

2. *Over the past several years council members etc. have taken various trips all over the world at the tax payer's expense with this bus issue.*

   Response: Prior to making a decision on a major project such as this, it is a common and prudent practice for elected officials to travel to other cities where similar systems have been built to see first hand the technology in operation and to talk with the planners and operators about any lessons learned that would be helpful to the proposed project. Because they recognize the value of learning first hand about what other cities have done, the Federal Transit Administration has been the sponsor of several of these trips.

3. *All of a sudden a light bulb flashed on and the Express Bus was born. During school and business hours the Express was and still is a welcomed and needed choice. However, I have noticed on weekends that it's empty; at nite also. As a woman on the verge of a "political" nervous break down if I rewrote this mumbo-jumbo it would, no doubt, be worse in the deciphering dept. so have decided to just make a statement clearer and add a few comments. I have become obsessed with looking into all vehicles etc. (public trans) for the past two weeks. Only once did the Waikiki-Kapahulu Trolley have more then 3 passengers on it. At two different times in one eve the caterpillar or roller coaster, whateve' you call it, had only 3 passengers. With the economy down why would tourists pay more when they can travel for less on the local bus?*

   Response: The public transportation system is designed to serve Oahu residents – not tourists. The private transportation providers provide limited stop, direct routes between hotels and tourist destinations.

4. *Being as the side walk merchants were given the heave ho along with the bike-buggies, a few years ago, I cannot understand why there isn't a limit imposed by the PUC. If the greed of the PUC is causing the traffic problem to what its become then the City should take over. Every time I board the bus I ask the driver if they had been consulted about BRT. The reply: "NO!" Why aren't the people employed by the best bus service in the world included in the decision making. Oh, just another "under the table" way of doing business in Hawaii Nei.*

   Response: The BRT project will result in additional bus driving jobs. Also, TheBus personnel participated in the working group meetings, and the BRT has been included in articles in the bus drivers' newsletter.

5. *The other eve I took the bus that went down Ala Moana Blvd. from Bishop to Waikiki for the first time in ages. It was about 6:30 p.m. Tourists were asking the driver about the B bus. I interjected with: hey, this bus will get you there just fine; you don't need to change. The driver responded with: who was I to tell them what to do. Guess who ended up apologizing; me. It took about thirty or forty minutes bumper to bumper traffic. However, the locals on the road should know to take Kapiolani blvd. as traffic does always move on it.*

   Response: Comment noted. This comment does not relate to the PCTP.

6. *To me the simple solution would be for Express busses at certain hours coming in from the furtherest parts of the island. A definite limit on tour busses, trolleys, limos etc. With our economy as such if a business can't make it here they had better move on. Locals leave; immigrants arrive. They live differently. Are we going to be come Hong Kong? Singapore is out because one has to obey the law. If the, so called laws, "Don't feed the birds," "don't remove grocery carts," "don't gamble," etc. fall on deaf ears you think our government can ban cars!?!! Give me a break. If I had been on one of these past fruitless trips I would be so ashamed I would have paid my own way but, alas, there is no pride in corruption and greed.*

   Response: Comment noted. The City has no plans to limit tour buses, trolleys, or limousines.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00577

November 13, 2002

Mr. Larry Hurst
1122 Elm Street, Apt. 505
Honolulu, Hawaii 96814

Dear Mr. Hurst:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *First, I have to say let's correct it. It's not Ward Avenue. It's Pensacola Avenue that's in the plan here.*

   Response: We concur. One of the BRT project changes was changing the BRT alignment from Ward Avenue to Pensacola Street.

2. *And that's what I really, really like about this. It will affect something of a – on many streets, and the whole island needs it, is just traffic calming, slowing people down. The DMV doesn't issue these double oh licenses to kill, so that – you know, we know from recent events that everyone thinks they should be able to go faster and not pay any price for this.*

   Response: Comment noted.

3. *I really appreciate the way the DTS came to me, and I gave them an overhead view and talked about the eight years that I've been there, what I've seen. People flooring it, going between a preschool and a high school, many seniors, many families with little children. I'm sure it's the same thing all over the island. You know, slow people down to see an oncoming bus, you know, in a lane, or have a lane they can't be in, to narrow the street down. It's much better.*

   Response: Comment noted. We will be glad to discuss the project at any time.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00578

November 13, 2002

Mr. Ed Ige
47-107 Heno Place
Kaneohe, Hawaii 96744

Dear Mr. Ige:

Subject: Primary Corridor Transportation Project (PCTP)

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'd like to express my concerns as an individual employed by a private transportation company within the tourist industry. I'm not opposed to the BRT as a whole and its objective to alleviate traffic congestion in the future. I disagree with the amount of money that is being funded and also some aspects of this program.*

   Response: Thank you for attending the public hearing and expressing your concerns regarding the project.

2. *I believe that, in viewing some of the sketches outside, that the stops and the routes would benefit the tourists, take away business from our private tourist company, and also they would benefit at the expense of our tourist industries.*

   Response: The Refined LPA has been designed to serve residents of Oahu, not tourists.

3. *If not already granted, I respectfully request that private transportation companies be granted the same privileges on the routes and the stops as the BRT in order to compete with them, not just in Waikiki, but all over Oahu.*

   Response: Private buses will be able to take advantage of the A.M. zipper lane extension, P.M. zipper lane, and Waiawa interchange improvements. Letting private passenger carriers use all of the BRT lanes and stops would significantly slow down the BRT and make it ineffective in attracting auto drivers to transit.

4. *Another concern that I had is I'd like to see the three largest employers, the Federal, State, and the City, make a commitment to making plans to encourage their employees to ride the bus.*

   Response: It is beyond the project scope to analyze encouraging federal, state, and city employees to ride the bus.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

717 Hausten Street #202
Honolulu, Hawaii 96826
November 6, 2000

Ms. Cheryl Soon, Director
Dept. of Transportation
Services
City and County of Honolulu
711 Kapiolani Blvd., Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Most drivers would agree that Oahu's traffic congestion is a source of frustration and that steps need to be taken before gridlock paralyzes our streets. With regard to the City Council's current deliberations on a comprehensive transportation plan for the island, I should like to suggest that a solution that works in a freeway environment may not be optimal in an urban setting.

For the outlying areas, the Bus Rapid Transit (BRT) system may indeed be a more appropriate alternative than the No-Build Alternative and the Transportation System Management (TSM) Alternative (The Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) of the Primary Corridor Transportation Project dated August 2000). If zipper lanes and dedicated bus lanes from Kapolei to Middle Street move traffic smoothly and quickly over the freeway, people may be convinced to give up their cars and take the bus.

On the other hand, a TSM system, which would retain and increase the efficiency of our present bus system, may be better suited for the Primary Urban Center. The creation of dedicated BRT lanes within the city would substantially reduce on-street parking and thus negatively impact residents, property owners, and businesses. Moreover, the placement of BRT stations near already busy intersections could create potentially hazardous situations involving motor vehicles and pedestrians.

Since others have testified on the impact of dedicated lanes in areas such as Kalakaua Avenue and Kapiolani Boulevard, my focus will be on the segment of University Avenue in Moiliili from Kapiolani Boulevard to Sinclair Circle at the University of Hawaii at Manoa. According to the MIS/DEIS report, a total of 78 parking stalls will be eliminated from that segment of University Avenue if the BRT system takes two median lanes (4-21).

One of my biggest concerns is the sub-segment between Kapiolani Boulevard and South King Street. From personal observation, approximately 52 unmarked parking stalls will be eliminated. This loss of on-street parking will negatively impact owners who had built apartments with less than one stall for each unit. For example, 738 University Avenue has 5 stalls for 8 units, 830 University has 4 stalls for 8 units. These are just two addresses that I observed as I walked down the street last month. Without on-street parking, the owners of those apartments will have more difficulties in renting units without a parking stall, and tenants with two automobiles may be forced to move to other apartments that can better accommodate their cars.

According to the MIS/DEIS, "parking facilities would be considered to replace the on-street parking, but only if they served a community purpose" (4.0). To the extent that a parking facility in Moiliili would serve a community purpose, there would still be the problem of finding space for such a facility. Moreover, residents may face financial hardship if they are required to pay a fee. They may instead attempt to find parking on nearby streets, which is already very limited in Moiliili.

Another major concern is that a bus station for the BRT is tentatively planned for construction between Varsity Theater and Puck's Alley (2-26), a section of University Avenue that is often active with multi-directional traffic flow. Cars exiting from Coyne Street, adjacent to Varsity Theater, frequently cross and turn left up University Avenue. In addition, cars making turns from South King Street often speed up University Avenue and could create a hazard for bus riders walking to and from the proposed bus stop. I should like to suggest that councilmembers examine carefully the vehicular and pedestrian traffic flow around the proposed bus station. While acknowledging that the intent of the BRT is to reduce the number of cars on the road, it is reasonable to presume that any such reduction would occur gradually over time, and that citizens should not be placed at risk during that period.

From a cost benefit perspective, to have the BRT go up to Sinclair Circle may not be in the best interest of taxpayers because enrollment at the University of Hawaii at Manoa has declined from 20,090 students during Fall 1993 (Attachment 1) to the present 17,260 for Fall 2000, according to the Institutional Research Office at the University of Hawaii at Manoa. Furthermore, the April 2000 Institutional Research Office's Enrollment Projections from Fall 2000 to Fall 2006 show that enrollment is projected to remain relatively flat (Attachment 2).

Moreover, with improved technology and lowered costs, distance learning may become a viable option for students and the university, thereby reducing further the number of commuting students in the future.

In conclusion, the proposed bus station and the elimination of on-street parking will have a negative impact on apartment owners and residents who reside on or near University Avenue. If the BRT takes the two median lanes and places a bus station on that street, traffic congestion will likely increase and could affect safety levels for drivers as well as pedestrians. Finally, the projected flat enrollment at the university does not support implementation of the BRT system in Moiliili. The TSM Alternative would minimize disruptions for residents while delivering satisfactory and cost efficient service level for the community as a whole.

Most important is that the City needs to provide more buses during peak periods. Also riders should be able to rely on a puncutual, dependable transit alternative without the frustrating delays that are frequently occurring with the present bus system. Otherwise, people will not be persuaded to give up their cars.

Sincerely,

Janet S. Inamine

Attachments (2)

AR00015861

TABLE 1
HEADCOUNT ENROLLMENT OF CREDIT STUDENTS, BY CAMPUS
UNIVERSITY OF HAWAI'I
FALL 1989 TO FALL 1999

FALL SEMESTER	TOTAL		UH AT MANOA		UH AT HILO 1/		UH WEST O'AHU		UH COMMUNITY COLLEGES													
									SUBTOTAL		HAWAI'I 1/		HONOLULU		KAPI'OLANI		KAUA'I		LEEWARD		MAUI		WINDWARD	
	No.	Pct Chg	No.	Pct Chg	No.	Pct Chg	No.	Pct Chg	No.	Pct Chg	No.	Pct Chg	No.	Pct Chg	No.	Pct Chg	No.	Pct Chg	No.	Pct Chg	No.	Pct Chg
1989	43,785	2.4	18,622	0.8	1,935	9.1	601	22.2	22,627	2.7	2,038	9.5	4,199	-2.4	5,741	2.5	1,313	6.0	5,652	3.8	2,078	2.9	1,806	3.1
1990	45,870	4.8	18,874	1.4	2,564	32.5	652	8.5	23,780	5.1	1,896	-7.0	4,383	4.4	6,292	9.6	1,424	8.5	5,812	2.8	2,345	12.9	1,827	1.3
1991	47,668	3.9	19,383	2.7	2,681	4.6	687	2.3	24,937	4.9	1,857	-2.1	4,466	1.9	6,550	4.1	1,507	5.8	6,351	9.3	2,590	10.4	1,816	-0.7
1992	49,851	4.6	19,865	2.5	2,966	10.6	692	0.7	26,328	5.6	2,207	18.8	4,774	6.9	7,132	8.9	1,580	4.8	6,135	-3.4	2,713	4.7	1,787	10.6
1993	50,647	1.6	20,090	1.1	3,174	7.0	676	-2.3	28,707	1.4	2,415	9.4	4,741	-0.7	7,375	3.4	1,464	-7.3	6,473	5.5	2,597	-4.3	1,642	-8.1
1994	51,677	2.0	20,041	-0.2	2,987	-5.9	744	10.1	27,905	4.5	2,815	16.6	4,824	1.8	7,648	3.7	1,518	3.7	6,507	0.5	2,826	8.8	1,767	7.6
1995	50,242	-2.8	19,801	-1.2	2,872	-3.9	716	-3.8	28,853	-3.8	2,811	-0.1	4,445	-7.9	7,329	-4.2	1,461	-3.8	6,368	-2.1	2,765	-2.2	1,674	-5.3
1996	47,379	-5.7	18,252	-7.8	2,800	-2.5	648	-9.5	25,679	-4.4	2,463	-12.4	4,090	-8.0	7,373	0.6	1,367	-6.4	6,014	-5.6	2,854	3.2	1,518	-9.3
1997	45,551	-3.9	17,365	-4.9	2,639	-5.8	648	0.0	24,899	-3.0	2,221	-9.8	3,970	-2.9	7,189	-2.5	1,283	-6.1	5,936	-1.3	2,787	-2.3	1,513	-0.3
1998	45,337	-0.5	17,013	-2.0	2,730	3.4	685	5.7	24,909	0.0	2,308	3.9	4,124	3.9	7,236	0.7	1,136	-11.5	5,765	-2.9	2,849	2.2	1,491	-1.5
1999 2/ ...	46,479	NA	17,612	NA	2,780	NA	687	0.3	25,390	NA	2,279	-1.3	4,769	NA	7,254	0.2	1,142	0.5	5,570	-3.4	2,862	0.5	1,514	1.5

1/ Beginning in Fall 1991, Hawai'i Community College was transferred organizationally from UH Hilo to the UH Community College System. Data have been adjusted accordingly.

2/ Includes continuing education credit students at UH Manoa, UH Hilo and Honolulu CC, effective Fall 1999. Percentage change calculations for these campuses, and for both the UH and UHCC systems, are incomparable to prior years.

Note: Data have been updated to include special students (concurrents, early admits and auditors) for all years shown.

FALL ENROLLMENT REPORT

UNIVERSITY OF HAWAI'I

FALL 1999

Institutional Research Office
University of Hawai'i
December 1999

File Reference: Management and Planning Support Folder, Enrollment

Reports available online at: http://www.hawaii.edu/iro/maps.htm

ENROLLMENT PROJECTIONS

UNIVERSITY OF HAWAI'I

FALL 2000 TO FALL 2006

Institutional Research Office
University of Hawai'i

April 2000

File Reference: Management and Planning Support Folder, Projections

Reports available online at: http://www.hawaii.edu/iro/maps.htm

TABLE 7
HEADCOUNT ENROLLMENT OF CREDIT STUDENTS, BY ATTENDANCE STATUS
UNIVERSITY OF HAWAI'I
FALL 1999 TO FALL 2006

	ACTUAL 1/	PROJECTED						
	1999	2000	2001	2002	2003	2004	2005	2006
UH SYSTEM TOTAL 1/	46,479	46,661	46,961	47,001	46,799	47,024	47,287	47,471
Full-Time	25,958	26,075	26,233	26,276	26,183	26,295	26,422	26,513
Part-Time	20,521	20,606	20,728	20,725	20,616	20,729	20,865	20,958
UH AT MANOA 2/	17,612	17,656	17,734	17,778	17,758	17,810	17,832	17,852
Full-Time	12,434	12,466	12,520	12,552	12,537	12,574	12,590	12,603
Part-Time	5,178	5,190	5,214	5,226	5,221	5,236	5,242	5,249
UH AT HILO 2/	2,790	2,832	2,896	2,938	2,943	2,960	2,982	3,003
Full-Time	2,115	2,151	2,200	2,232	2,236	2,248	2,265	2,281
Part-Time	675	681	696	706	707	712	717	722
UH - WEST O'AHU	887	895	897	701	708	718	729	739
Full-Time	327	330	331	333	336	341	346	351
Part-Time	360	365	366	368	372	377	383	388
UH COMMUNITY COLLEGES	25,390	25,498	25,634	25,584	25,390	25,536	25,744	25,877
Full-Time	11,082	11,128	11,182	11,159	11,074	11,132	11,221	11,278
Part-Time	14,308	14,370	14,452	14,425	14,316	14,404	14,523	14,599
Hawai'i Community College	2,279	2,293	2,307	2,315	2,295	2,293	2,307	2,318
Full-Time	1,303	1,311	1,319	1,324	1,312	1,311	1,319	1,325
Part-Time	976	982	988	991	983	982	988	993
Honolulu Community College 2/	4,769	4,791	4,807	4,783	4,754	4,766	4,794	4,832
Full-Time	1,991	2,000	2,007	1,997	1,985	1,990	2,001	2,017
Part-Time	2,778	2,791	2,800	2,786	2,769	2,776	2,793	2,815
Kapi'olani Community College	7,254	7,290	7,304	7,289	7,271	7,313	7,338	7,401
Full-Time	2,996	3,011	3,017	3,010	3,003	3,020	3,031	3,057
Part-Time	4,258	4,279	4,287	4,279	4,268	4,293	4,307	4,344
Kaua'i Community College	1,142	1,142	1,162	1,180	1,158	1,181	1,200	1,214
Full-Time	458	458	466	473	464	474	481	487
Part-Time	684	684	696	707	694	707	719	727
Leeward Community College	5,570	5,558	5,562	5,515	5,475	5,491	5,566	5,556
Full-Time	2,666	2,660	2,662	2,640	2,621	2,628	2,664	2,659
Part-Time	2,904	2,898	2,900	2,875	2,854	2,863	2,902	2,897
Maui Community College	2,862	2,881	2,945	2,957	2,928	2,980	3,027	3,029
Full-Time	1,013	1,020	1,042	1,047	1,036	1,055	1,071	1,072
Part-Time	1,849	1,861	1,903	1,910	1,892	1,925	1,956	1,957
Windward Community College	1,514	1,543	1,547	1,545	1,509	1,512	1,512	1,527
Full-Time	655	668	669	668	653	654	654	661
Part-Time	859	875	878	877	856	858	858	866

1/ Headcounts include specials (auditors, early admits and concurrent students) for all years.
2/ Headcounts include continuing education credit enrollments, beginning Fall 1999.

AR00015862

APR 2 0 2002

717 Hausten Street #202
Honolulu, Hawaii 96826
April 19, 2002

Ms. Cheryl D. Soon, Director
Dept. of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

Thank you for the copy of the March 2002 Supplemental Draft Environmental Impact Statement.

My focus will be again on the segment of University Avenue from Kapiolani Boulevard to Sinclair Circle at the University of Hawaii Manoa.

1. The loss of approximately 78 on-street parking on University Avenue will negatively impact the community. Section S3.1 of the March 2002 Supplemental Draft Environmental Impact Statement states that "when on-street parking is removed....new neighborhood parking facilities would be considered to replace the on-street parking, but only if they served a community purpose."

"Only if they served a community purpose" is very vague and does not in any way assure the Moiliili community that there will be replacement parking for businesses, apartment owners, residents, and for those who work in this neighborhood. Furthermore, since vacant, inexpensive land is not readily available at this area, residents will be burdened by the added cost of parking facilities' fees, if the City purchases properties.

2. The proposed transit stop in the middle of University Avenue, between Varsity Theater and Puck's Alley, will endanger vehicular and pedestrian traffic. Current multi-directional traffic flow near this transit stop will create an extremely hazardous situation. Also, cars may not be able to stop in time, if bus riders, especially seniors and children, impulsively run across University Avenue to the transit station.

3. The Institutional Research Office at the University of Hawaii at Manoa details a decline in enrollment from 20,090 for Fall 1993 to 17,532 for Fall 2001 (A1). The Fall 2002 to 2008 Enrollment projections have various ranges from 17,000 to 20,000 (B1). However, the school's newsletter, Ku Lama, reports Spring 2002 enrollment of 16,972 (C), indicating perhaps a future low range of 17,000-18,000 students at the Manoa Campus.

Moreover, if West Oahu College is built, clearly a large number of students will choose to enroll there. Furthermore, the 2002 Summer Program offers a number of online and distance learning courses (D,E). If more of these courses are offered during the regular school year, on-campus enrollment may decline at Manoa.

Because of the negative impact of the loss of on-street parking and the possible decline of enrollment at the University of Hawaii, the TSM Alternative, rather than the Refined BRT Alternative, would minimize disruptions for residents while delivering satisfactory and cost-efficient service level for the Moiliili community as well as the University of Hawaii. The City could then use that savings for other needed transit expenditures.

In closing, I strongly feel that the BRT should be first implemented from the Kapolei area to Middle Street. Only by decreasing the number of cars coming into the primary urban area can the City really decide what system should be implemented for the inner, individual communities.

Attached also is a copy of my testimony with attachments that was submitted on November 6, 2000 to Chair Duke Bainum, City & County Transportation Committee. This copy explains in detail my concerns about the Bus Rapid Transit system.

Sincerely,

Janet Inamine

attachments

TABLE 2
HEADCOUNT ENROLLMENT OF CREDIT STUDENTS BY EDUCATIONAL LEVEL
UNIVERSITY OF HAWAI'I AT MANOA
FALL 1991 TO FALL 2001

EDUCATIONAL LEVEL	FALL SEMESTERS										
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
TOTAL 1/	19,383	19,885	20,090	20,041	19,801	18,252	17,365	17,013	17,612	17,263	17,532
% Change 2/	2.7	2.5	1.1	-0.2	-1.2	-7.8	-4.9	-2.0	NA	-2.0	1.6
CLASSIFIED	17,535	18,045	18,334	18,421	18,270	17,005	16,298	16,008	16,199	15,718	16,021
Undergraduate	12,530	12,838	12,991	12,903	13,050	12,216	11,782	11,500	11,456	11,151	11,485
Freshmen	2,091	2,150	2,156	2,217	2,295	1,913	1,820	1,923	1,925	2,014	2,142
Sophomores	2,587	2,551	2,615	2,360	2,378	2,227	2,074	2,037	2,019	2,030	2,155
Juniors	3,408	3,380	3,279	3,252	3,227	3,116	2,996	2,822	2,761	2,868	2,834
Seniors	4,444	4,757	4,941	5,074	5,152	4,960	4,792	4,718	4,753	4,438	4,354
Graduate	5,005	5,207	5,343	5,518	5,220	4,789	4,514	4,508	4,741	4,567	4,536
Masters	2,865	2,930	2,975	3,115	3,054	2,934	2,704	2,697	2,844	2,765	2,752
Doctoral	1,288	1,328	1,404	1,425	1,372	1,275	1,271	1,234	1,217	1,179	1,191
First Prof	439	451	459	450	453	458	448	458	476	485	500
PB, PDE 3/	373	433	442	481	272	80	48	61	151	90	63
Grad Special / GCert	40	67	63	67	69	44	43	58	53	48	30
UNCLASSIFIED	1,805	1,788	1,695	1,581	1,500	1,229	1,060	1,002	1,405	1,543	1,477
Undergraduate	495	451	401	364	331	299	247	291	473	568	535
Graduate 4/	1,310	1,337	1,294	1,217	1,169	930	813	711	932	975	942
NO DATA	43	32	61	39	31	18	9	3	6	2	34

1/ Headcount includes Specials (early admits, concurrent and auditors) for all years shown - updated Fall 1999.
2/ Headcount includes Outreach College, beginning Fall 1999. Percentage change for Fall 1999 is therefore not comparable to prior years. Excluding Outreach College, the Fall 1999 headcount is estimated to have been 16,777; the percentage change from Fall 1998 would have measured -1.4%.
3/ Headcount for Post Baccalaureate and Professional Diploma in Education offered in the College of Education. For years prior to Fall 1998, includes headcount for Professional Diploma program only.
4/ Includes students enrolled in the Pre-Admission to Law Program in the School of Law.

FALL ENROLLMENT REPORT
UNIVERSITY OF HAWAI'I AT MĀNOA
FALL 2001

Institutional Research Office
University of Hawai'i
November 2001

File Reference: Management and Planning Support Folder, Enrollment

Reports available online at: www.hawaii.edu/iro/maps.htm

Attachment A

ENROLLMENT PROJECTIONS

UNIVERSITY OF HAWAI'I AT MĀNOA

FALL 2002 TO FALL 2008

Institutional Research Office
University of Hawai'i

February 2002

File Reference: Management and Planning Support Folder, Projections

Reports available online at: http://www.hawaii.edu/iro/maps.htm

Attachment B

TABLE 1
HEADCOUNT ENROLLMENT OF CREDIT STUDENTS
LOW, MIDDLE AND HIGH PROJECTION SERIES
UNIVERSITY OF HAWAI'I AT MANOA
FALL 2001 TO FALL 2008

PROJECTION SERIES	ACTUAL 2001	PROJECTED 2002	2003	2004	2005	2006	2007	2008
HIGH SERIES TOTAL	17,532	18,225	18,781	19,298	19,828	20,419	20,958	21,490
Classified	16,021	16,696	17,252	17,769	18,299	18,890	19,439	19,961
Undergraduates	11,485	11,998	12,446	12,854	13,272	13,748	14,179	14,580
First-Time Freshmen	1,650	1,743	1,706	1,761	1,862	1,962	2,003	2,076
Continuing / Returning	8,298	8,672	9,110	9,414	9,681	10,005	10,395	10,723
Transfer	1,537	1,583	1,630	1,679	1,729	1,781	1,781	1,781
Graduates	4,536	4,698	4,806	4,915	5,027	5,142	5,260	5,381
Unclassified	1,511	1,529	1,529	1,529	1,529	1,529	1,529	1,529
Undergraduates	569	570	570	570	570	570	570	570
Graduates	942	959	959	959	959	959	959	959
MIDDLE SERIES TOTAL 1/	17,532	17,828	18,036	18,223	18,433	18,701	18,975	19,267
Classified	16,021	16,317	16,527	16,712	16,922	17,190	17,464	17,756
Undergraduates	11,485	11,737	11,922	12,082	12,267	12,510	12,759	13,026
First-Time Freshmen	1,650	1,687	1,634	1,668	1,738	1,802	1,844	1,916
Continuing / Returning	8,298	8,490	8,705	8,807	8,898	9,053	9,260	9,455
Transfer	1,537	1,560	1,583	1,607	1,631	1,655	1,655	1,655
Graduates	4,536	4,580	4,605	4,630	4,655	4,680	4,705	4,730
Unclassified	1,511	1,511	1,511	1,511	1,511	1,511	1,511	1,511
Undergraduates	569	569	569	569	569	569	569	569
Graduates	942	942	942	942	942	942	942	942
LOW SERIES TOTAL	17,532	17,435	17,349	17,229	17,146	17,119	17,166	17,288
Classified	16,021	16,005	15,919	15,799	15,716	15,689	15,736	15,858
Undergraduates	11,485	11,478	11,392	11,272	11,189	11,162	11,209	11,331
First-Time Freshmen	1,650	1,608	1,526	1,521	1,549	1,566	1,608	1,676
Continuing / Returning	8,298	8,483	8,479	8,364	8,253	8,209	8,214	8,268
Transfer	1,537	1,387	1,387	1,387	1,387	1,387	1,387	1,387
Graduates	4,536	4,527	4,527	4,527	4,527	4,527	4,527	4,527
Unclassified	1,511	1,430	1,430	1,430	1,430	1,430	1,430	1,430
Undergraduates	569	540	540	540	540	540	540	540
Graduates	942	890	890	890	890	890	890	890

1/ The remaining tables in the report use the Middle Projection Series.

of values for each series - must do so because of the interconnectedness of the model.

AR00015865

Feb 22, 2002
Vol. 8 / No. 22

Ka Lama

THE NEWSLETTER OF THE UNIVERSITY OF HAWAI'I SYSTEM

Preliminary Enrollment Figures Up Across-the-Board at UH Campuses

University of Hawai'i system for the spring 2002 semester compared to the spring 2001 semester, with a total of 44,627 students enrolled. That is an increase of 6.6 percent from the last spring semester for a total of 2,783 more students. The UH system increase reflects the first increase in total UH spring enrollment since 1995.

The three baccalaureate campuses all showed increases from spring 2001 with UH Mānoa enrolling 16,972 students (4.9 percent increase), UH Hilo enrolling 2,787 students (5.3 percent increase) and UH West O'ahu enrolling 763 (11.9 percent increase).

"Often times during a rough economy, individuals seek additional training and their career options," said Dean Neubauer, interim chancellor for UHM. "However, under the new leadership of Evan Dobelle, UH Mānoa has been working hard to establish itself as a more open and participatory campus. This was evident from the recent Campus Care Days and the successful opening planning day session that attracted more than 1,400 attendees. I think people are finding Mānoa to be a more attractive venue for learning and these increased enrollment figures prove that our efforts are making a difference."

UH Hilo Chancellor Rose Tseng attributes the increases to UH Hilo's dedicated faculty, as well as the recruiting efforts of its marketing and outreach efforts to the neighbor

"We are pleased to see a notable increase in enrollment, especially in our junior and senior classes this spring semester," said Tseng. "We see this growth reflected in several key programs. Our new astronomy program is quickly attracting more students, as is our well-established marine science program, which is now housed in a brand new facility. We are also seeing growth in the biology program, perhaps due to the new conservation track and our English and communication departments have also experienced growth this semester."

Bill Pearman, chancellor at UH West O'ahu said, "The spring 2002 enrollment figures are the highest in the history of UH-West O'ahu. Our learning likely contributed to this increase."

At the UH community colleges, 24,105 students are enrolled, with an increase from last year's figures of 7.9 percent, or 1,763 students. Kaua'i Community College has the greatest percentage gain in students of all campuses system wide with an 11.3 percent increase in enrollment from the spring 2001 semester. After UH Mānoa, Kapi'olani, Leeward and Honolulu Community Colleges show the greatest numerical gain in students with 666, 330 and 284 more students respectively, as compared to the last spring semester. Another 39,000 students are expected to enroll in non-credit programs throughout the UH system, so enrollment could

DISTANCE LEARNING CREDIT PROGRAMS

University Degrees Online

UH ONLINE IS DESIGNED FOR BUSY WORKING ADULTS who are eager to achieve their educational goals, but find it difficult to get to a University of Hawai'i campus. In *UH Online* courses, you'll read course materials, complete assignments, and take online tests. You'll interact online with your professors and fellow students in an atmosphere of collaborative learning, on your own schedule — asynchronously. Specific online courses may fulfill elective requirements in other UH programs.

For complete details and latest updates, visit our website at
www.aln.hawaii.edu

A Selection of Summer 2002 Offerings

COMPUTER SCIENCE COURSES
- ICS 101/101L Tools for the Information Age
- ICS 311 Algorithms and Data Structures
- ICS 321 Data Storage and Retrieval

OTHER COURSES
- CAS 403 Information Technology and Culture
- ETEC 662 Computer Networks in Education
- FAMR 350 Group Process Leadership
- JPN 399 Directed Third Level Japanese
- LING 102 Introduction to the Study of Language
- MUS 600F Music Education Seminar: Music Education and the Internet
- PACE 247 Survey of Conflict Management
- PPST 301 Populations of Hawai'i
- SOC 332 Survey of Sociology of Law
- SOC 419 Analysis in Formal Organizations

MS Degree in Information and Computer Sciences (ICS)

See the ICS website for detailed information about this online degree program at http://www.ics.hawaii.edu/academic/asynch/index.html.

BA Program in Information and Computer Sciences

See the ICS website http://www.ics.hawaii.edu/academic/asynch/undergrad-online.html for more information about this partially online degree program.

BA Program in Liberal Studies

Liberal Studies offers two partially online interdisciplinary degrees, which include courses from computer science and the social sciences. To apply students must have completed the necessary 55 semester credits and write a 3-page proposal to qualify for admission.

All major courses in both BA programs are offered online. Other Arts and Sciences degrees may require a mixture of online, campus-based, or cable course credits. Associate of Arts programs offered by UH community colleges help students gain eligibility for entry into the bachelor's programs.

UH Hilo's Certificate Program in Database Management

Focus on the fundamentals and applications of database design. For more information on UH Hilo's certificate program and specific math prerequisites which can be completed at a community college, visit the UH Online website at www.aln.hawaii.edu.

Minimum Computer Requirements for UH Online Courses
- PC with Windows 95, 98, or NT; or a Macintosh II running System 7.5;
- Netscape Navigator 4.0 or higher, or Internet Explorer 4.0 or higher;
- email;
- at least a 28.8 modem connection (56K preferred for ICS majors).

Registration

For general information on enrolling and registering in our online distance learning programs or specific online courses, visit the *UH Online* website at www.aln.hawaii.edu.

Tuition and fees are the same regardless of where you are in the world:
- Undergraduate courses (numbered 499 & below): $135/credit
- Post-Baccalaureate courses, 500 & above: $179/credit

Questions?
Email help@aln.hawaii.edu ✪

This program partners UH Hilo, UH Mānoa, UH West O'ahu, and UH Community Colleges, and is supported in part by a grant from the Alfred P. Sloan Foundation.

Attachment D

AR00015866

Marketing (MKT)

For details on course offerings, call the Department of Marketing at (808) 956-6692.

MKT 351 Marketing Communications (3) In-depth coverage of the major communication tools used in marketing such as advertising, sales promotion, public relations and the internet. Emphasis on integrated marketing communications. Pre: BUS 312 or consent.

MKT 381 Multinational Marketing (3) Principles and topics related to international marketing, with emphasis on strategic planning and applications. Pre: BUS 312 or consent.

MKT 391 Marketing Strategies (3) Decision-making by the marketing executive: integration of all elements of the marketing program based on actual business situations. Pre: 311, 321, and one other marketing course above 311; or consent.

MKT 690 Advanced Seminar in Marketing (3) Significant topics, problems in marketing. May be repeated with change in topic. Pre: BUS 615 or consent.

Mathematics (MATH)

For details on course offerings, call the Department of Mathematics at (808) 956-4679.

MATH 100 Survey of Mathematics (3) Selected topics designed to acquaint non-specialists with examples of mathematical reasoning. May not be taken for credit after 215 or higher.

MATH 140 Trigonometry and Analytic Geometry (3) Functions, with special attention to polynomial, rational, exponential, logarithmic, and trigonometric functions, plane trigonometry, polar coordinates, conic sections. Pre: two years of high school algebra, one year of plane geometry, and precalculus assessment.

MATH 203 Calculus for Business and Social Sciences (3) Basic concepts; differentiation and integration; applications to management, finance, economics, and the social sciences. Pre: two years high school algebra, one year plane geometry, and precalculus assessment.

MATH 241 Calculus I (4) Basic concepts; differentiation with applications; integration. Pre: a grade of C or better in 140 or 215 or precalculus assessment.

MATH 242 Calculus II (3) Integration techniques and applications, series and approximations, differential equations. Pre: a grade of C or better in 241 or 251 or a grade of B or better in 215; or consent. Co-requisite: 242L.

MATH 242L Calculus Computer Lab (1) Introduction to symbolic computer software for solving calculus problems, graphing functions and experimenting with calculus concepts. No knowledge of computers required. Co-requisite: 242.

CREDIT COURSES

Distance Learning Through the Hawaii Interactive Television System (HITS)

USING A 2-WAY VIDEO SYSTEM to connect all the campuses of the University of Hawai'i system, the university's HITS program provides greater access for students throughout the state.

In addition to the video connection, students continue their in-class interactions with their instructor and fellow students via the world wide web.

Summer 2002 HITS courses include:

Term I:
SOC 495 Topics in Sociology: Globalization, 10:30–11:45am, MTuWThF
POLS 320 International Relations, 12:00-1:15pm, MTuWThF

Term II:
COM 340 Intercultural Communication, 9:00–10:15am, MTuWThF
CHEM 152 Survey of Organic and Bioorganic Chemistry, 5:30-8:00pm. MWF

Cross-term
NURS 690 Introduction to Health Policy, 5/30-8/15, Th, 4:00-7:30pm

If you are a student interested in taking HITS courses on the Mānoa campus, register easily by web (www.pae.hawaii.edu) or phone (808-296-6723). Neighbor Island students contact the University Centers or Media Centers on their campuses regarding registration and course materials (registration is through UHM Outreach College).

Kaua'i:
Ramona Kincaid, tel: (808) 245-8336
Maui, Moloka'i, Lana'i:
Karen Muraoka, tel: (808) 984-3527
Velma Panlasigui, tel: (808) 984-3444
Hilo:
Robert Okuda. tel: (808) 974-7635
West Hawai'i:
Kathy Damon, tel: (808) 322-4865

For more information on HITS or to make suggestions regarding HITS and UH telecommunications, contact Hae Okimoto, manager of information technology services, at tel: (808) 956-5023.

MATH 243 Calculus III (3) Vector algebra, vector-valued functions, differentiation in several variables, and optimization. Pre: A grade of C or better in 242 or 252 or a grade of B or better in 216 and 242L (or concurrent).

MATH 244 Calculus IV (2) Multiple integrals; line integrals and Green's Theorem; surface integrals, Stokes's and Gauss's Theorems. Pre: 243 or consent.

MATH 302 Introduction to Differential Equations I (3) First order ordinary differential equations, constant coefficient linear equations, oscillations, Laplace transform, convolution, Green's function. Pre: 216 or 243 (or concurrent) or 253 (or concurrent), or consent.

MATH 311 Introduction to Linear Algebra (3) Algebra of matrices, linear equations, real vector spaces and transformations. Pre: 243 or 253 (or concurrent) or consent.

MATH 402 Partial Differential Equations I (3) Integral surfaces and characteristics of first and second order partial differential equations. Applications to the equations of mathematical physics. Pre: 243 or 253, or consent. Recommended: 244 and 302.

Attachment E

Copy

717 Hausten Street #202
Honolulu, Hawaii 96826
November 6, 2000

Councilmember Duke Bainum
Chair of the Committee
on Transportation
City & County of Honolulu
530 S. King Street #202
Honolulu, Hawaii 96813

Dear Councilmember Bainum:

Most drivers would agree that Oahu's traffic congestion is a source of frustration and that steps need to be taken before gridlock paralyzes our streets. With regard to the City Council's current deliberations on a comprehensive transportation plan for the island, I should like to suggest that a solution that works in a freeway environment may not be optimal in an urban setting.

For the outlying areas, the Bus Rapid Transit (BRT) system may indeed be a more appropriate alternative than the No-Build Alternative and the Transportation System Management (TSM) Alternative (The Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) of the Primary Corridor Transportation Project dated August 2000). If zipper lanes and dedicated bus lanes from Kapolei to Middle Street move traffic smoothly and quickly over the freeway, people may be convinced to give up their cars and take the bus.

On the other hand, a TSM system, which would retain and increase the efficiency of our present bus system, may be better suited for the Primary Urban Center. The creation of dedicated BRT lanes within the city would substantially reduce on-street parking and thus negatively impact residents, property owners, and businesses. Moreover, the placement of BRT stations near already busy intersections could create potentially hazardous situations involving motor vehicles and pedestrians.

Since others have testified on the impact of dedicated lanes in areas such as Kalakaua Avenue and Kapiolani Boulevard, my focus will be on the segment of University Avenue in Moiliili from Kapiolani Boulevard to Sinclair Circle at the University of Hawaii at Manoa. According to the MIS/DEIS report, a total of 78 parking stalls will be eliminated from that segment of University Avenue if the BRT system takes two median lanes (4-21).

AR00015867

One of my biggest concerns is the sub-segment between Kapiolani Boulevard and South King Street. From personal observation, approximately 52 unmarked parking stalls will be eliminated. This loss of on-street parking will negatively impact owners who had built apartments with less than one stall for each unit. For example, 738 University Avenue has 5 stalls for 8 units, 830 University has 4 stalls for 8 units. These are just two addresses that I observed as I walked down the street last month. Without on-street parking, the owners of those apartments will have more difficulties in renting units without a parking stall, and tenants with two automobiles may be forced to move to other apartments that can better accommodate their cars.

According to the MIS/DEIS, "parking facilities would be considered to replace the on-street parking, but only if they served a community purpose" (4.0). To the extent that a parking facility in Moiliili would serve a community purpose, there would still be the problem of finding space for such a facility. Moreover, residents may face financial hardship if they are required to pay a fee. They may instead attempt to find parking on nearby streets, which is already very limited in Moiliili.

Another major concern is that a bus station for the BRT is tentatively planned for construction between Varsity Theater and Puck's Alley (2-26), a section of University Avenue that is often active with multi-directional traffic flow. Cars exiting from Coyne Street, adjacent to Varsity Theater, frequently cross and turn left up University Avenue. In addition, cars making turns from South King Street often speed up University Avenue and could create a hazard for bus riders walking to and from the proposed bus stop. I should like to suggest that councilmembers examine carefully the vehicular and pedestrian traffic flow around the proposed bus station. While acknowledging that the intent of the BRT is to reduce the number of cars on the road, it is reasonable to presume that any such reduction would occur gradually over time, and that citizens should not be placed at risk during that period.

From a cost benefit perspective, to have the BRT go up to Sinclair Circle may not be in the best interest of taxpayers because enrollment at the University of Hawaii at Manoa has declined from 20,090 students during Fall 1993 (Attachment 1) to the present 17,260 for Fall 2000, according to the Institutional Research Office at the University of Hawaii at Manoa. Furthermore, the April 2000 Institutional Research Office's Enrollment Projections from Fall 2000 to Fall 2006 show that enrollment is projected to remain relatively flat (Attachment 2).

Moreover, with improved technology and lowered costs, distance learning may become a viable option for students and the university, thereby reducing further the number of commuting students in the future.

In conclusion, the proposed bus station and the elimination of on-street parking will have a negative impact on apartment owners and residents who reside on or near University Avenue. If the BRT takes the two median lanes and places a bus station on that street, traffic congestion will likely increase and could affect safety levels for drivers as well as pedestrians. Finally, the projected flat enrollment at the university does not support implementation of the BRT system in Moiliili. The TSM Alternative would minimize disruptions for residents while delivering satisfactory and cost efficient service level for the community as a whole.

Most important is that the City needs to provide more buses during peak periods. Also, riders should be able to rely on a punctual, dependable transit alternative without the frustrating delays that are frequently occurring with the present bus system. Otherwise, people will not be persuaded to give up their cars.

Sincerely,

Janet S. Inamine

Attachments (2)

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD11/00-05381R
TPD4/02-01608R

Ms. Janet S. Inamine
717 Hausten Street, #202
Honolulu, Hawaii 96826

Dear Ms. Inamine:

Subject: Primary Corridor Transportation Project

This responds to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your November 6, 2000 letter and your testimony at the November 14, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS. Part B responds to your April 22, 2002 letter and your oral testimony at the April 20, 2002 Public Hearing regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *With regard to the City Council's current deliberations on a comprehensive transportation plan for the island, I should like to suggest that a solution that works in a freeway environment may not be optimal in an urban setting.*

   Response: The Primary Corridor Transportation Project (PCTP) includes a Regional BRT component and an In-Town BRT component.

   The Regional BRT component that services the areas from Middle Street to Kapolei, by providing a system of express lanes, extension of the Zipper Lane and addition of a P.M. Zipper Lane. From the Middle Street Transit Center, riders have the option of continuing into town using the In-Town BRT bus lanes or transferring to other buses servicing the urban core.

   The In-Town BRT component is comprised of a mix of exclusive BRT, semi-exclusive BRT and mixed-use lanes. The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly affected, exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes, exclusive transit lanes were retained such as on Dillingham and through Downtown.

2. *For the outlying areas, the Bus Rapid Transit (BRT) system may indeed be a more appropriate alternative than the No-Build Alternative and the Transportation System management (TSM) Alternative. If zipper lanes and dedicated bus lanes from Kapolei to Middle Street move traffic smoothly and quickly over the freeway, people may be convinced to give up their cars and take the bus.*

   Response: Comment noted.

3. *On the other hand, a TSM system, which would retain and increase the efficiency of our present bus system, may be better suited for the Primary Urban Center.*

   Response: This would best occur with the Refined LPA since it gives the highest priority to transit of any of the three alternatives.

4. *The creation of dedicated BRT lanes within the city would substantially reduce on-street parking and thus negatively impact residents, property owners, and businesses.*

   Response: The Refined LPA will encourage greater use of transit, thereby lessening the demand for on-street parking. In those locations where the reduction of on-street parking will pose difficulties for the community, DTS will evaluate different options for replacement parking, and will install such parking if it is deemed to serve a community purpose.

5. *Moreover, the placement of BRT stations near already busy intersections could create potentially hazardous situations involving motor vehicles and pedestrians.*

   Response: One of the major design considerations of the transit stations is safety. For example, the conceptual design of transit stops located in the median includes features such as railings to discourage transit patrons from exiting the platform except at designated locations. Traffic signals and cross walks will be provided at BRT stations to allow pedestrians to safely cross the street.

6. *One of my biggest concerns is the sub-segment between Kapiolani Boulevard and South King Street. From personal observation, approximately 52 unmarked parking stalls will be eliminated. This loss of on-street parking will negatively impact owners who had built apartments with less than one stall for each unit. Without on-street parking, the owners of those apartments will have more difficulties in renting units without a parking stall, and tenants with two automobiles may be forced to move to other apartments that can better accommodate their cars.*

   Response: Subsequent to publishing the MIS/DEIS the UH-Manoa branch alignment was rerouted from Ward Avenue to Pensacola Street. While there will still be need to remove on-street parking on Pensecola between King Street and Kapiolani Boulevard, this elimination of parking is viewed by the nearby community (McKinley High School, Makiki Christian Church, and Ala Moana/ Kakaako Neighborhood Board) as an acceptable trade-off of having the BRT close-by.

7. *According to the MIS/DEIS, "parking facilities would be considered to replace the on-street parking, but only if they served a community purpose" (4.0). To the extent that a parking facility in Moiliili would serve a community purpose, there would still be the problem of finding space for such a facility.*

   Moreover, residents may face financial hardship if they are required to pay a fee. They may instead attempt to find parking on nearby streets, which is already very limited in Moiliili.

   Response: There are no obvious replacement parking sites in Moiliili, therefore the community will have to weigh the trade-offs involved in installing replacement vs. other community goals.

8. *Another major concern is that a bus station for the BRT is tentatively planned for construction between Varsity Theater and Puck's Alley (2-26), a section of University Avenue that is often active with multi-directional traffic flow. Cars exiting from Coyne Street, adjacent to Varsity*

Theater, frequently cross and turn left up University Avenue. In addition, cars making turns from South King Street often speed up University Avenue and could create a hazard for bus riders walking to and from the proposed bus stop.

Response: Since the City will incur additional costs for maintaining any off-street replacement parking facilities, the City Council will likely want to impose a modest parking charge for the use of the facility. The imposition of parking fees will have to be part of the trade-off analysis by the community on whether or not they want to have replacement parking.

9. *I should like to suggest that council members examine carefully the vehicular and pedestrian traffic flow around the proposed bus station. While acknowledging that the intent of the BRT is to reduce the number of cars on the road, it is reasonable to presume that any such reduction would occur gradually over time, and that citizens should not be placed at risk during that period.*

   Response: The conversion of exclusive lanes will be phased in over time so that the effects of motorists diverting to transit can offset the reduction in capacity for general purpose traffic.

10. *From a cost benefit perspective, to have the BRT go up to Sinclair Circle may not be in the best interest of taxpayers because enrollment at the University of Hawaii at Manoa has declined from 20,090 students during Fall 1993 (Attachment 1) to the present 17,260 for Fall 2000, according to the Institutional Research Office at the University of Hawaii at Manoa. Furthermore, the April 2000 Institutional Research Office's Enrollment Projections from Fall 2000 to Fall 2006 show that enrollment is projected to remain relatively flat (Attachment 2).*

    Response: Even if enrollment at the University of Hawaii remains relatively flat, it is still a large generator of trips and therefore a logical place to end the BRT branch.

11. *Moreover, with improved technology and lowered costs, distance learning may become a viable option for students and the university, thereby reducing further the number of commuting students in the future.*

    Response: The concept of telecommuting and distance learning had not caused notable impacts on travel demand to date. The need to commute is not expected to be reduced, even with the increase in telecommuting. Transit service improvements, such as BRT, would still be in demand with the students.

12. *In conclusion, the proposed bus station and the elimination of on-street parking will have a negative impact on apartment owners and residents who reside on or near University Avenue.*

    Response: See responses to comments #4 and #9.

13. *If the BRT takes the two median lanes and places a bus station on that street, traffic congestion will likely increase and could affect safety levels for drivers as well as pedestrians.*

    Response: See response to comment #5.

14. *Finally, the projected flat enrollment at the university does not support implementation of the BRT system in Mailiili.*

    Response: See response to comment #10.

15. *The TSM Alternative would minimize disruptions for residents while delivering satisfactory and cost efficient service level for the community as a whole.*

    Response: Comment noted for the support of the TSM Alternative.

16. *Most important is that the City needs to provide more buses during peak periods. Also, riders should be able to rely on a punctual, dependable transit alternative without the frustrating delays that are frequently occurring with the present bus system. Otherwise, people will not be persuaded to give up their cars.*

    Response: Agreed. The Refined LPA would be most suited to achieve the commented goals since it gives the highest priority to transit of the three alternatives.

17. *Support the BRT system from Kapolei to Middle Street but have concerns from Kapiolani Boulevard to the University of Hawaii at Manoa.*

    Response: Comment noted.

Part B – SDEIS Comments

18. *The loss of approximately 76 on-street parking on University Avenue will negatively impact the community. Section S3.1 of the March 2002 Supplemental Draft Environmental Impact Statements states that "when on-street parking is removed ... new neighborhood parking facilities would be considered to replace the on-street parking, but only if they served a community purpose."*

    "Only if they served a community purpose" is very vague and does not in any way assure the Mailiili community that there will be replacement parking for businesses, apartment owners, residents, and for those who work in this neighborhood. Furthermore, since vacant inexpensive land is not readily available at this area, residents will be burdened by the added cost of parking facilities' fees, if the City purchases properties.

    Response: Parking impacts on University Avenue can be mitigated by providing replacement parking in the neighborhood. As discussed in Section 4.3 of the FEIS, in areas where a large concentration of parking spaces would be affected, replacement parking in new off-street parking facilities would be considered, but only if they meet other livable community objectives and are the result of community-based planning. The language in Section S.3.1 has been revised to clarify the intent of the City. The imposition of parking fees will have to be part of the trade-off analysis by the community on whether or not they want to have replacement parking.

19. *The proposed transit stop in the middle of University Avenue, between Varsity Theater and Puck's Alley, will endanger vehicular and pedestrian traffic. Current multi-directional traffic flow near this transit stop will create an extremely hazardous situation. Also, cars may not be able to stop in time, if bus riders, especially seniors and children, impulsively run across University Avenue to the transit station.*

    Response: It is proposed that Coyne Street be converted to a right-turn in and right-turn out only at University Avenue. This will clean up a lot of the traffic problems at this location made.

20. *The Institutional Research Office at the University of Hawaii at Manoa details a decline in enrollment from 20,090 for Fall 1993 to 17,532 for Fall 2001 (A1). The Fall 2002 to 2008 Enrollment projections have various ranges from 17,000 to 20,000 (B1). However, the school's newsletter, Ku Lama, reports Spring 2002 enrollment of 16,792 (C), indicating perhaps a future low range of 17,000 – 18,000 students at the Manoa Campus.*

    Moreover, if West Oahu College is built, clearly a large number of students will choose to enroll there. Furthermore, the 2002 Summer Program offers a number of online and distance learning courses (D, E). If more of these courses are offered during the regular school year, on-campus enrollment may decline at Manoa.

    Because of the negative impact of the loss of on-street parking and the possible decline of enrollment at the University of Hawaii, the TSM Alternative, rather than the Refined BRT Alternative, would minimize disruptions for residents while delivering satisfactory and cost-efficient service level for the Moiliili community as well as the University of Hawaii. The City could use that savings for other needed transit expenditures.

    Response: See response to comment #10.

21. *In closing, I strongly feel that the BRT should be first implemented from Kapolei area to Middle Street. Only by decreasing the number of cars coming into the primary urban area can the city really decide what system should be implemented for the inner, individual communities.*

    Response: Timing and implementation of the P.M. zipper lane and related Regional BRT improvements must be coordinated with the State DOT. SDOT wants to widen the H-1 Freeway in the areas where the P.M. zipper lane is proposed before installing the zipper lane. Since the Iwilei-Waikiki segment of the In-Town BRT can be a viable improvement to the transit system immediately, the City Council has elected to proceed with this segment as the first step in phasing of the BRT system.

22. *My focus will be on the segment of University Avenue from Kapiolani Boulevard to Sinclair Circle at the University of Hawaii – Manoa.*

    One, the loss of approximately 78 on-street parking on University Avenue will negatively impact the Moiliili community. Section S3.1 of the March 2002 Supplemental Draft Environmental Impact Statement states that, quote, "when on-street parking is removed, new neighborhood parking facilities will be considered to replace the on-street parking, but only if they served a community purpose," unquote.

    "Only if they served a community purpose" is very vague and does not in any way assure the Moiliili community that there will be replacement parking for businesses, apartment owners, residents, and for those who work in this neighborhood.

    Response: See response to comment #18.

23. *Furthermore, since vacant, inexpensive land is not readily available at this area, residents will be burdened by the added cost of parking facilities' fees if the City purchases properties.*

    Two, the proposed transit stop in the middle of University Avenue, between Varsity Theater and Puck's Alley, will endanger vehicular and pedestrian traffic. Current multi-directional traffic flow near this transit stop will create an extremely hazardous situation.

    Response: See responses to comments #18 and #19.

24. *Also, cars may not be able to stop in time if bus riders, especially seniors and children, impulsively run across University Avenue to the transit station.*

    Response: Safety features such as rails shall be used at the transit stops to discourage pedestrians from not using crosswalks. These crosswalks will be signalized so that bus riders will not have to cross while traffic is moving.

25. *Number three, the Institutional Research Office at the University of Hawaii at Manoa details a decline in enrollment from 20,090 for Fall 1993 to 17,532 students for Fall – sorry to 17,532 for Fall 2001. The Fall 2002 to 2008 enrollment projections have various ranges from 17,000 to 20,000. However, the February 22, 2002 issue of the school's newsletter, Ku Lama, reports Spring 2002 enrollment of 16,972, indicating perhaps a future low range of 17,000 to 18,000 students at the Manoa campus.*

    Response: Comment noted.

26. *Moreover, if West Oahu College is built, clearly a large number of students will choose to enroll there. Furthermore, the 2002 Summer Program offers a number of online and distance learning courses. If more of these courses are offered during the regular school year, on-campus enrollment may decline at Manoa.*

    Response: Comment noted.

27. *Because of the negative impact of the loss of on-street parking and the possible decline of enrollment at the university of Hawaii, the TSM Alternative, rather than the Refined BRT Alternative, would minimize disruptions for residents while delivering satisfactory and cost-efficient service level for the Moiliili community as well as the University of Hawaii.*

    Response: Thank you for attending the public hearing and sharing your preference for the TSM Alternative.

28. *In closing, I just strongly feel that the BRT should be first implemented from the Kapolei area to Middle Street. Only by decreasing the number of cars coming into the primary urban area can the City really decide what system should be implemented for the inner individual communities.*

    Response: See response to comment #21.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00579

November 13, 2002

Mr. Carl Jacobs
98-1911 Kaahumanu Street, Apt. D
Aiea, Hawaii 96701

Dear Mr. Jacobs:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 19, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *There was a question that you asked earlier this afternoon regarding the cost and our sub-cost for the study. And, I believe, the figure was $8.2 million, Cheryl? How much of that, I would like to know, to be answered off line ... How much of that was the regional study for this area? And, I think that was a question that needs to be asked.*

   Response: The expenditures for the MIS/DEIS and FEIS are for development of an island-wide transit system with a particular focus on the Primary Transportation Corridor.

2. *Councilmember Okino asked a question regarding whether the on and off ramps were going to be for buses or whether they were going to be for buses and HOVs. And the response that I gather, sitting back there, was it was going to be for buses only. And the printed material indicates this for buses and HOVs.*

   Response: The Luapele ramp is the only ramp currently planned. It will be for buses only.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00580

November 13, 2002

Mr. Ambrose Keohu
89-170 Nanaikala Pl
Waianae, Hawaii 96792

Dear Mr. Keohu:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding your comment on the Supplemental Draft Environmental Impact Statement (SDEIS).

I ride the bus every day. That's my transportation. I see Rapid Transit would be the best thing on this island if the thing come true. If the thing come true, I wish you all luck.

Response: Thank you for attending the public hearing and supporting the BRT project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

MOLLY KIHARA
98-099 UAO PLACE #3309
AIEA, HAWAII 96701-5009

November 5, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon,

Re: Primary Corridor Project Draft EIS

I oppose the use of the Kam Drive-In site as a transit center, for the following reasons. First, Aloha Stadium and the Kam Drive-In site are both located in Aiea, and it takes only about 7 minutes to drive between them. Pearl City and Aiea are two distinct communities, and neither of these locations will effectively serve Pearl City residents.

Second, the intersection at the northeast corner of the site is already congested without adding 500 cars trying to park at or exit the site. Waiting time at that intersection traffic light is already noticeably long. Cars trying to turn left onto Moanalua Road from Kaonohi Street often instead go straight up Kaonohi and make illegal U-turns at Uao Place to then turn right onto Moanalua Road. This is an existing safety hazard that will only get worse with a transit center. In addition, currently left turns are not allowed from Kaonohi Street into Kam Drive-In. If used as a transit center, this constraint will pose access problems and add to unsafe driving habits.

Third, during the holiday shopping season, Moanalua Road near Pearlridge Center *is a* parking lot. The closer it gets to Christmas, it can take 30 minutes to drive along Moanalua Road from Aiea Heights Drive to Kaonohi Street. This drive normally takes 5 minutes. With a transit center added to the mess of Pealridge Center shoppers, this intolerable situation will be exacerbated.

In addition to the above adverse traffic problems, there will be noise impacts and air quality impacts. Existing conditions at the site would need to be assessed and potential impacts determined and addressed. For example, there are two high-rise residential buildings located between Kam Drive-In and the H-1 freeway that are already subject to traffic noise, which amplifies with increasing height.

I am also strongly opposed to on- and off-ramps at Kaonohi Street. This would cause undue traffic impacts on too many existing residents whose only access to a major roadway is Kaonohi Street. On Kaonohi Street between Moanalua Road and the H-1 freeway overpass alone, 500 condominium units would be affected. Mauka of the H-1 freeway overpass, an additional 1,200 condominium units and 500 single-family homes would be affected.

In the DEIS, alternative sites for a Regional Transit Center serving Aiea and Pearl City are neither identified nor evaluated. I hereby suggest that a transit center at Leeward Community College (LCC) instead of Kam Drive-In be considered. LCC is located in Pearl City at its western end. This site would better serve Pearl City residents because it is located in Pearl City rather than Aiea. Also, it is located at the western end of Pearl City, so Pearl City residents would be driving against the flow of rush hour traffic to get to and from this transit center.

Finally, I highly recommend that the City Council finalize its decision on its preferred alternative only after identifying, evaluating, and choosing sites for the Regional Transit Centers, bus on- and off-ramps, and other components of the alternatives. It seems likely at this point that feasible components may be difficult if not impossible to identify and implement given existing constraints and potential environmental and social impacts.

Sincerely,

Molly M. Kihara

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05421R

November 13, 2002

Ms. Molly Kihara
98-099 Uao Place, #3309
Aiea, Hawaii 96701

Dear Ms. Kihara:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the October 19, 2000 Special Transportation Committee Meeting and your November 5, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I'm opposed to the use of the Kam Drive-In site as a transit center for the following reasons. (1) Aloha Stadium and the Kam Drive-In site are both located in Aiea. They will not necessarily serve Pearl City residents. (2) The intersection at Kaonohi Street and Moanalua Road is already congested as you have heard. (3) especially during the holiday shopping season, Moanalua Road near Pearl Ridge Center is a parking lot; (4) Additional noise impacts; (5) potential air quality impacts.*

   Response: The former Kamehameha Drive-In site is no longer being considered as a transit center.

2. *I'm also strongly opposed to on and off ramps at Kaonohi Street. This would cause undue traffic impacts on many existing residents whose only access to a major roadway is Kaonohi Street. Specifically, along Kaonohi Street between Moanalua Road and the H-1 Freeway overpass alone, 500 condominium units would be effected. Mauka of the H-1 Freeway overpass, approximately 1,200 condominium units and 500 single family homes would be effected.*

   Response: The proposed on/off-ramp from Kaonohi Street onto H-1 has been eliminated from consideration. The new BRT-exclusive ramp proposed would be located near Aloha Stadium at Luapele Drive in close proximity to the Aloha Stadium's Overflow Lot that has been identified as a potential park-and-ride/transit center site. This ramp would be reversible providing access directly into the Zipper Lane during the A.M. Peak Period and egress from the Zipper Lane to Luapele Drive during the P.M. Peak Period.

3. *Finally, whatever alternative is further considered, additional impact evaluations will be necessary. I recommend that the Council finalize its decision on its preferred alternative only after identifying, evaluating and choosing sites for the regional transit centers, bus on and off ramps, and other components of the alternatives. It seems possible, at this point, that feasible components maybe difficult, if not impossible, to identify and implement given existing constraints.*

Response: Additional impact evaluations and public input have been used to refine the transit center locations shown in the FEIS.

4. *I think Aloha Stadium should be considered the site for the Aiea residents. Because to drive from the Kam Drive-In site to Aloha Stadium only takes about seven minutes. I think the Kam Drive-In site should be located somewhere further toward, if not within, the Pearl City area.*

   Response: The former Kamehameha Drive-In site is no longer being considered as a transit center. Using the Aloha Stadium overflow (Kamehameha Highway) parking lot as a transit center/park-and-ride is moving forward. In addition a transit center at the former Jim Siemons dealership and one near Hale Mohalu are proceeding. All of these can serve Pearl City residents.

5. *I oppose the use of the Kam Drive-In site as a transit center, for the following reasons. First, Aloha Stadium and the Kam Drive-In site are both located in Aiea, and it takes only about 7 minutes to drive between them. Pearl City and Aiea are two distinct communities, and neither of these locations will effectively serve Pearl City residents.*

   Response: See response to comment #4.

6. *Second, the intersection at the northeast corner of the site is already congested without adding 500 cars trying to park at or exit the site. Waiting time at that intersection traffic light is already noticeably long. Cars trying to turn left onto Moanalua Road from Keonohi Street often instead go straight up Keonohi and make illegal U-turns at Ueo Place to then turn right onto Moanalua Road. This is an existing safety hazard that will only get worse with a transit center.*

   Response: See response to comment #2.

7. *In addition, currently left turns are not allowed from Keonohi Street into Kam Drive-In. If used as a transit center, this constraint will pose access problems and add to unsafe driving habits.*

   Response: See response to comment #4.

8. *Third, during the holiday shopping season, Moanalua Road near Pearlridge Center is a parking lot. The closer it gets to Christmas, it can take 30 minutes to drive along Moanalua Road from Aiea Heights Drive to Keonohi. This drive normally takes 5 minutes. With a transit center added to the mess of Pearlridge Center shoppers, this intolerable situation will be exacerbated.*

   Response: See response to comment #4.

9. *In addition to the above adverse traffic problems, there will be noise impacts and air quality impacts. Existing conditions at the site would need to be assessed and potential impacts determined and addressed. For example, there are two high-rise residential buildings located between Kam Drive-In and the H-1 freeway that are already subject to traffic noise, which amplifies with increasing height.*

   Response: In response to public input Kamehameha Drive-In has been eliminated as a proposed transit center site, and the proposed Keonohi Street ramp has been relocated to Luapele Drive.

10. *I am also strongly opposed to on- and off-ramps at Keonohi Street. This would cause undue traffic impacts on too many existing residents whose only access to a major roadway is Keonohi Street. On Keonohi Street between Moanalua Road and the H-1 freeway overpass alone, 500 condominium units would be affected. Mauka of the H-1 freeway overpass, an additional 1,200 condominium units and 500 single-family homes would be affected.*

    Response: See response to comment #2.

11. *In the DEIS, alternative sites for a Regional Transit Center serving Aiea and Pearl City are neither identified nor evaluated.*

    Response: See response to comment #4.

12. *I hereby suggest that a transit center at Leeward Community College (LCC) instead of Kam Drive-In be considered. LCC is located in Pearl City at its western end. This site would better serve Pearl City residents because it is located in Pearl City rather than Aiea. Also, it is located at the western end of Pearl City, so Pearl City residents would be driving against the flow of rush hour traffic to get to and from this transit center.*

    Response: See response to comment #4.

13. *Finally, I highly recommend that the City Council finalize its decision on its preferred alternative only after identifying, evaluating, and choosing sites for the Regional Transit Centers, bus on- and off-ramps, and other components of the alternatives. It seems likely at this point that feasible components may be difficult if not impossible to identify and implement given existing constraints and potential environmental and social impacts.*

    Response: See response to comment #3.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Erin Kilpatrick
3214 Herbert Street
Honolulu, HI 96815

October 12, 2000

Department of Transportation Services official Public Hearing on: the Major Investment Study/Draft Environmental Impact Statement (MIS/SEIS) on the Primary Corridor Transportation Project

Dear Sir or Madam:

I am a Kapahulu resident. I attend grad. School at UH and I work downtown. I support the concept of the Bus Rapid Transit System for three reasons:

It is the most responsible: The BRT system provides an environmentally healthy alternative by utilizing a hybrid source system. The multi-modal approach to transportation moves us toward a more viable, long-term solution to congestion.

It is the most realistic: The BRT has the greatest chance to begin reducing traffic because it is the most comprehensive and offers the greatest capacity. We have no extra, expendable room on this island for more lanes, more roads, more traffic. The dedicated lane can ensure efficiency, improve commute times and increase ridership thereby reducing traffic.

It is the most respectful: The BRT creates options, access and independence for those whom otherwise have not. It acknowledges the needs and plans of our kupuna whom either cannot or prefer not drive. It provides opportunities and accountability to our children. It respects the busy life-style of every in-town commuter by removing traffic jams, road rage and parking from our list of things to worry about. This is a project for Honolulu to be very proud of.

Thanks for considering my opinion

Sincerely,

Erin Kilpatrick

Erin Kilpatrick
Kapahulu Resident

Erin Kilpatrick
3214 Herbert Street
Honolulu, HI 96815

October 26, 2000

The Honorable Duke Bainum, Chair
And Committee Members
Transportation Committee
650 South King Street
Honolulu, Hawaii 96813

Dear Chair Bainum and Committee Members:

RE: Support of Bus Raid Transit

I am a Kapahulu resident. I attend grad. School at UH and I work downtown. I support the concept of the Bus Rapid Transit System for three reasons:

It is the most responsible: The BRT system provides an environmentally healthy alternative by utilizing a hybrid source system. The multi-modal approach to transportation moves us toward a more viable, long-term solution to congestion.

It is the most realistic: The BRT has the greatest chance to begin reducing traffic because it is the most comprehensive and offers the greatest capacity. We have no extra, expendable room on this island for more lanes, more roads, more traffic. The dedicated lane can ensure efficiency, improve commute times and increase ridership thereby reducing traffic.

It is the most respectful: The BRT creates options, access and independence for those whom otherwise have not. It acknowledges the needs and plans of our kupuna whom either cannot or prefer not drive. It provides opportunities and accountability to our children. It respects the busy life-style of every in-town commuter by removing traffic jams, road rage and parking from our list of things to worry about. This is a project for Honolulu to be very proud of.

Thanks for considering my opinion.

Erin Kilpatrick

Erin Kilpatrick

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00581

November 13, 2002

Ms. Erin Kilpatrick
3214 Herbert Street
Honolulu, Hawaii 96815

Dear Ms. Kilpatrick:

Subject: Primary Corridor Transportation Project (PCTP)

This responds to your October 12, 2000 letter, oral testimony at the October 12, 2000 Public Hearing, and October 26, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I support the concept of the Bus Rapid Transit System for three reasons.*

   Response: Thank you for supporting the project.

2. *It is the most responsible: The BRT system provides an environmentally healthy alternative by utilizing e hybrid source system. The multi-modal approach to transportation moves us toward a more viable, long-term solution to congestion.*

   Response: We concur.

3. *It is the most realistic: The BRT has the greatest chance to begin reducing traffic because it is the most comprehensive and offers the greatest capacity. We have no extra, expendable room on this island for more lanes, more roads, more traffic. The dedicated lane can ensure efficiency, improve commute times and increase ridership thereby reducing traffic.*

   Response: We concur.

4. *It is the most respectful: The BRT creates options, access and independence for those whom otherwise have not. It acknowledges the needs and plans of our kupuna whom either cannot or prefer not drive. It provides opportunities and accountability to our children. It respects the busy life-style of every in-town commuter by removing traffic jams, road rage end parking from our list of things to worry about. This is a project for Honolulu to be very proud of.*

   Response: Comment noted.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

RECEIVED

Thurs, Oct. 26, 2000

Oct 27 1 23 PM '00

Good evening, Chair ~~Yoshimura~~ Bainum and Councilmembers. Thank you for this opportunity. My name is Amy Kimura. I am speaking for myself.

My understanding of the Bus Rapid Transit or Transportation Systems Management is it is to make the commute during rush hours more tolerable for workers and students to downtown, UH, the community colleges, and Ala Moana. It is not aimed at tourists and retirees who can travel during non-peak hours. Reducing the number of cars by 10-20% during rush hours should do this. There is an average of 1.2 persons per car during peak hours. This is six people in every five cars. If only one car has two occupants, then four of the five cars have one person each. If only one of the four single-occupant cars begins to carry two people, you will have reduced the number of cars on the road by 20%.

It is my hope as a taxpayer that the City will do this in a cost-effective, least-disruptive way while preserving as much quality of life for as many residents as possible. It should not provide jobs by building a transportation system that does not alleviate the traffic jams or is overly expensive to maintain. The City can provide jobs by repairing our old sewer system.

Under the No-Build Alternative, why not encourage the multi-occupant cars and discourage single-occupant cars in various ways I did not see in the MIS/DEIS? For example, reduce the taxpayer subsidy of city employee parking stalls in downtown to encourage carpooling or alternate transportation (bus, vanpool, and biking when it becomes safe to do so, perhaps in 5-10 years). Don't look gift horses in the mouth--years ago the Federal government offered a subsidized road-pricing trial, but then Mayor Fasi refused it so as not to jeopardize the heavy-rail system.

I have many concerns about the Bus Rapid Transit alternative. Tax money should not be gambled on untested, unproven systems. For example, the Aloha Stadium rusting was supposed to be a "patina," not a problem. In the Dept. of Education a lot of money was spent on breaking down walls between classrooms for 3-on-2. Later the walls were re-built when 3-on-2 was discarded. I favor testing innovations on a limited trial basis first, to work out bugs and problems before widescale use or commitment of tax money.

When I was in Trieste, I saw the power plates embedded in the city streets and wondered what would happen to people walking on them in one of Honolulu's rain storms or in a lightning storm. The untested, touchable embedded power plate buses should not only be thoroughly tested in Trieste, Italy, and other cities before Honolulu considers them. They should be tried out on a small scale here with our different climate and lifestyle for a few YEARS before the City commits to a fleet of them.

An interval of two minutes between buses sounds great but ignores the real world. They may start out that way at the terminus, but cannot remain on that schedule. Only a grade-separated system is able to maintain that kind of schedule along its route.

I would like to see how the semi-exclusive lanes would work in actual practice--in the median and as a curb lane. A two-week to one-month demonstration project of the system using cones should be very enlightening and helpful in decision-making before commitment.

Why should the BRT need to go to Waikiki? How many employees would be served during the rush hour? How many of these are already riding the bus?

The grand monkeypod trees on Kapiolani Boulevard should not be sacrificed. They are beautiful and provide much needed shade. They create a wonderful Hawai'ian sense of place.

Amy Kimura

Misc. Com. No. 01291

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00582

November 13, 2002

Ms. Amy Kimura
1310 Haulu Street, Apt. 1002
Honolulu, Hawaii 96822

Dear Ms. Kimura:

Subject: Primary Corridor Transportation Project

This is in response to your October 26, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *It is my hope as a taxpayer that the City will do this in a cost-effective, least-disruptive way while preserving as much quality of life for as many residents as possible. It should not provide jobs by building a transportation system that does not alleviate the traffic jams or is overly expensive to maintain. The City can provide jobs by repairing our old sewer system.*

   Response: The Refined LPA (BRT Alternative) utilizes existing roadways to minimize right-of-way impacts. The Refined LPA preserves and improves the quality of life of Oahu's residents by improving the transportation linkages within the Primary Corridor and between Kapolei and the Urban Core. The purpose of this project is to provide an attractive transportation option to the automobile.

2. *Under the No-Build Alternative, why not encourage the multi-occupant cars and discourage single-occupant cars in various ways I did not see in the MIS/DEIS? For example, reduce the taxpayer subsidy of city employee parking stalls in downtown to encourage carpooling or alternate transportation (bus, vanpool, and biking when it becomes safe to do so, perhaps in 5-10 years).*

   Response: While elected officials can encourage government employees (along with all employees) to use public transportation, they cannot force them to do so. The proposed approach is instead to provide an alternative to the private auto, namely BRT that attracts people because it is faster and more reliable than the existing bus system would be able to be in the future as population grows and roadways become more congested. Another incentive that should be encouraged of all employers who subsidize their employees parking is to offer employees the option of a transit pass.

3. *I have many concerns about the Bus Rapid Transit alternative. Tax money should not be gambled on untested, unproven systems. For example, the Aloha Stadium rusting was supposed to be a "patina," not a problem. In the Dept. of Education, a lot of money was spent on breaking down walls between classrooms for 3-on-2. Later the walls were re-built when 3-on-2 was discarded. I favor testing innovations on a limited trial basis first, to work out bugs and problems before widescale use or commitment of tax money.*

Response: The proposed BRT system is based on ridership experience of the City's existing bus services, including the recently implemented express bus services that use much of the proposed BRT alignment, forecasts of BRT and local bus ridership using regional travel forecasting models, and input received at hundreds of public outreach meetings. A test without all features of the BRT system in place (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-floor vehicles with level boarding through multiple doors and pre-payment of fares) would be misleading and not a true test of the system. For example, the project proposes to completely reconstruct Dillingham Boulevard through the Kalihi area to provide significant pedestrian amenities to facilitate access to BRT stations, as well as building new BRT stations and exclusive lanes in the center of the roadway. Without such major reconstruction, it would not be possible to provide the substantial time savings for transit riders through this corridor that would be offered by the BRT. Most importantly, potential new riders would not likely perceive the demonstration service as permanent and would not be induced to change their travel mode.

4. *When I was in Trieste, I saw the power plates embedded in the city streets and wondered what would happen to people walking on them in one of Honolulu's rain storms or in a lightning storm. The untested, touchable embedded power plate buses should not only be thoroughly tested in Trieste, Italy, and other cities before Honolulu considers them. They would be tried out on a small scale here with our different climate and lifestyle for a few YEARS before the City commits to a fleet of them.*

   Response: Thorough testing of any technology will be required before implementation on the Primary Corridor Transportation Project.

5. *An interval of two minutes between buses sounds great but ignores the real world. They may start out that way at the terminus, but cannot remain on that schedule. Only a grade-separated system is able to maintain that kind of schedule along its route.*

   Response: This comment refers to an operating outcome that does not change the number of vehicles required, the capacity of the system, or its performance. Techniques are available to regulate on-time performance, and the platform length allows for a certain amount of *de facto* platooning that is likely to occur.

6. *I would like to see how the semi-exclusive lanes would work in actual practice -- in the median and as a curb lane. A two-week to one-month demonstration project of the system using cones should be very enlightening and helpful in decision-making before commitment.*

   Response: See response to comment #3.

7. *Why should the BRT need to go to Waikiki? How many employees would be served during the rush hour? How many of these are already riding the bus?*

   Response: With a high concentration of jobs, residences and visitor venues in a small area with few access points, Waikiki streets are congested during much of the day. To serve the high level of transit demand a system is proposed that will allow BRT vehicles to by-pass this congestion using bus priority lanes and other techniques. The BRT system will permit transit passengers to board anywhere along the route and complete their journey in Waikiki without having to transfer to a shuttle at Ala Moana Center. Other passengers who boarded buses not along the BRT route could transfer to the BRT at Ala Moana Center or many of the other transit centers and transfer points in the system. With this approach many riders could have a transfer free trip to-and-from Waikiki, whereas with a shuttle bus system everyone would have to transfer at Ala Moana Center.

8. *The grand monkeypod trees on Kapiolani Boulevard should not be sacrificed. They are beautiful and provide much needed shade. They create a wonderful Hawaiian sense of place.*

   Response: The discussion on tree impacts in the FEIS has been expanded to provide details on the individual tree impacts expected from the project action. Where possible, the project has been redesigned to avoid trees, and most monkeypod trees on Kapiolani Boulevard would not be affected. For example, widening is no longer planned for both sides of the street. Some bus stops were relocated and bus pullouts were strategically placed between existing trees as much as possible to reduce the need to transplant trees. BRT operations were also altered in order to help reduce tree impacts. For example, creating dedicated BRT lanes would often require street widening resulting in tree impacts. In order to limit the amount of street widening, exclusive BRT lanes were eliminated in some areas, and were replaced with mixed-use lanes. Despite extensive efforts, some trees will still have to be relocated or removed to allow for necessary road widening. In particular, about ten monkeypods along Kapiolani Boulevard will be replanted farther from the curb. Trees to be moved will be pruned before replanting, but in the case of monkeypods, their canopy is expected to grow back within one year, with full recovery in three to five year's time.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00583

November 13, 2002

Mr. Seiichi Kimura
45-269 Mokulele Place
Kaneohe, Hawaii 96744

Dear Mr. Kimura:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm totally against this Bus Rapid Transit system concept.*

   Response: Thank you for attending the public hearing.

2. *P.S., you know, incidentally, I have a local bus pass. But, you know, I am totally against this system.*

   Response: Comment noted.

3. *In 1964, when New York City had the World's Fair, I rode the rail from New York City to Montreal. I also rode the rail from Guangzhou, China, to Hong Kong, to Kowloon, Hong Kong. I also rode a train from Chek Lap Kok to Sheung Wan about two and a half years ago in Hong Kong. And in Taiwan, I also rode the train from Taipei, to Kao-Hsiung, to Tai-Chung, to Taipei. And just recently, I went to Japan on a 14-day railway pass. I returned on April 2nd. I spent about four nights in Tokyo city, riding the Yamanote line, the Keihinkuoko line, the Odakyu line and Sobu line.*

   Response: Thank you for sharing your international public transportation experiences with us.

4. *What the transportation experts have proposed, BRT, reminds me of Taipei City, Taiwan, main bus systems were before the construction of the now MRT railway system. Previously, the situation fronting the Taipei rail station was a nightmare, just a terrible bus situation. But two and a half years ago, when I went to Taiwan, at the hotel near the Taipei rail station, construction of the MRT, I noticed that the situation of the traffic has improved a lot.*

   Response: Comment noted.

5. *Yesterday, I took the Express bus to Waipahu. This has cut the traveling time to go and return, eliminating many of the local stops. But the drawback is they had to stop at many intersections where the traffic signs are.*

   Response: Comment noted.

6. *About three months ago, I saw an article in the Hawaii Hochi newspaper, that Naha City in Okinawa, Japan, have a monorail system, testing their equipment. I suggest that the local engineers look into it before committing themselves into the BRT system.*

   Response: A grade separated system was rejected at the outset by the public and City Council as being too costly and unsightly. Selection of a Locally Preferred Alternative has already been made.

7. *In closing, once again, I am totally against this BRT system, because it will not only compound the traffic congestion as it is now, it will be a nightmare.*

   Response: Again, thank you for attending the public hearing and expressing your opinion regarding the project.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

20 April 2002

Ms. Cheryl Soon, Director
Department of Transportation Services
City & County of Honolulu

Dear Director Soon,

Our growing population, compounded with heavy traffic congestion of our roads, highways, and freeways, definitely poses a daily transportation dilemma. We are now at a point in time where solutions and answers need to be formulated and followed through. If we hesitate to act nn these answers and snlutions, time will rapidly dissolve these solutions and we will certainly face a much more severe crisis. Often, we regret passing over opportunities offered to us at these pivotal points in life.

The vision of the Bus Rapid Transit is not one that I want to pass over. I believe that it is nne of the many steps that we need to take to alleviate some of our problems and concerns pertaining to transportation in Oahu. I will continue to support the Bus Rapid Transit and would like to see it through its completion.

Thank you for ynur time and attention in this matter.

Sincerely,

Eric Koike, P.E.
Structural Engineer

D:\Letter for BRT.doc

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00584

November 13, 2002

Mr. Eric Koike
98-611 Nohoalii Street
Aiea, Hawaii 96701

Dear Mr. Koike:

Subject: Primary Corridor Transportation Project

This responds to your April 20, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *Our growing population, compounded with heavy traffic congestion of our roads, highways, and freeways, definitely poses a daily transportation dilemma. We are not at a point in time where solutions and answers need to be formulated and followed through. If we hesitate to act on these answers and solutions, time will rapidly dissolve these solutions and we will certainly face a much more severe crisis. Often we regret passing over opportunities offered to us at these pivotal points in life.*

   Response: Comment noted.

2. *The vision of the Bus Rapid Transit is not one that I want to pass over. I believe that it is one of the many steps that we need to take to alleviate some of our problems and concerns pertaining to transportation in Oahu. I will continue to support the Bus Rapid Transit and would like to see it through its completion.*

   Response: Thank you for supporting the BRT project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

MELODY M. KUBO
1234 ALEXANDER STREET, NO. 108
HONOLULU, HI 96826
PHONE/FAX: (808) 955-0835
E-MAIL: mmkubo@aol.com

MAY 8 2002

Good morning:

I am Melody Kubo and I am testifying as a resident of McCully and a student at the William S. Richardson School of Law at the University of Hawai'i.

I live, go to school, and work in the "primary urban corridor" that will be most affected by the proposed bus rapid transit system.

I am a strong supporter of developing feasible rapid transit alternatives. I attended college in Boston, Massachusetts. Boston's transit system is extensive, and incorporates diverse elements, including buses, an extensive subway system, commuter trains, transit centers and park and ride lots. Although my college was located in a suburb of Boston, I could get into Boston in less than thirty minutes on the "T" (subway), and from there I could easily get to Logan Airport or catch a commuter train to visit my cousin in New Jersey. Because Boston's integrated rapid transit system was so convenient and accessible, I did not need a car. In fact, I did not own or even drive a car during my three years in Boston, and, amazingly, I did not even miss it!

Based on my own experiences, as well as those of others who similarly adapted to communities with excellent rapid transit systems, I am confident that, if the city's rapid transit system is convenient and accessible, people will use it. I will use it. And it will be a success.

I applaud the city for its efforts to invite dialogue to create a bold, visionary solution to address Hawai'i's traffic problems. The BRT proposal is unusual in its apparent emphasis on, and demonstrated commitment to, the early and active involvement of interested community members in the planning and design process. That the City Department of Transportation Services and its contractors are serious about involving the community is clearly demonstrated by the changes that were made to the In-Town BRT route which necessitated this public hearing, changes that were suggested by the community work groups.

I am here to urge you to continue moving forward with the planning process. Our traffic problem is getting worse, not better. Honolulu needs a new transit alternative. Please let the development process continue without delay.

Sincerely,

Melody M. Kubo

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01857R

November 13, 2002

Ms. Melody M. Kubo
1234 Alexander Street, No. 108
Honolulu, Hawaii 96826

Dear Ms. Kubo:

Subject: Primary Corridor Transportation Project

This is in response to your April 20, 2002 written testimony regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I am a strong supporter of developing feesible rapid transit alternatives. I attended college in Boston, Massachusetts. Boston's transit system is extensive, and incorporates diverse elements, including buses, an extensive subway system, commuter trains, transit centers and park and ride lots. Although my college wes located in a suburb of Boston, I could get into Boston in less than 30 minutes on the "T" (subway), and from there I could easily get to Logen Airport or catch a commuter train to visit my cousin in New jersey. Because Boston's integrated rapid transit system wes so convenient and accessible, I did not need a car. In fact, I did not own or even drive a car during my three yeers in Boston, and, amazingly, I did not even miss it!*

   Response: Thank you for sharing your experience with the Boston public transportation system and for supporting a rapid transit alternative.

2. *Based on my own experiences, as well as those of others who similarly adapted to communities with excellent rapid transit systems, I am confident that, if the city's rapid transit system is convenient and accessible, people will use it. I will use it. And it will be a success.*

   Response: We appreciate you supporting the project.

3. *I applaud the city for its efforts to invite dialogue to create a bold, visionary solution to address Hawaii's traffic problems. The BRT proposal is unusual in its apparent emphasis on, and demonstrated commitment to, the early and active involvement of interested community members in the planning and design process. That the City Department of Transportation Services and its contractors are serious about involving the community is clearly demonstrated by the changes that were made to the In-Town BRT route which necessitated this public hearing, changes that were suggested by the community work groups.*

   Response: We appreciate you attending the public hearing, supporting the project, and the compliment regarding the community involvement process.

4. *I am here to urge you to continue moving forward with the planning process. Our traffic problem is getting worse, not better. Honolulu needs a new transit alternative. Please let the development process continue without delay.*

   Response: Comment noted.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00585

November 13, 2002

Mr. Bill Lane
c/o DHX
5 Sand Island Road, Box 125
Honolulu, Hawaii 96816

Dear Mr. Lane:

Subject: Primary Corridor Transportation Project

This is in response to your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). At the November 14, 2000 Special Transportation Committee Meeting you commented on the needs of freight. Please see our response below.

Response: In the Public Outreach for the Project, the City established a Working Group (WG) for the Waikiki area composed of representatives from the hotels, retail and service industries, commercial passenger and freight carriers, and residents. A detailed study of passenger and freight loading activities was performed and reviewed with the Waikiki WG. Discussions with this Working Group led to revisions in the Proposed Project that resulted in no appreciable loss of on-street loading space along the streets affected by the BRT. This was achieved by allowing freight carriers to use the makai BRT shared lane during legal delivery hours (10 pm to 9 am); the BRT would simply pass around a stopped loading truck by using the adjacent traffic lane.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00586

November 12, 2002

Mr. David Laughlin

Subject: Primary Corridor Transportation Project

This responds to the comment in your testimony at the October 12, 2000 formal Public Hearing regarding the MIS/DEIS:

"And I feel that the dedicated bus lanes and the zipper lane has been a great help to the system. And I think if we improve the system with the park-and-ride lots would be a great help."

Response: Additional park-and-ride facilities are being planned at various locations on Oahu, some of which will be provided by the Refined LPA (BRT Alternative).

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00587

November 13, 2002

Ms. Kathy Leong
c/o Wilson Okamoto & Associates, Inc.
1907 S. Beretania Street, 4th Floor
Honolulu, Hawaii 96826

Dear Ms. Leong:

Subject: Primary Corridor Transportation Project

This responds to the comment you made on the MIS/DEIS. In your testimony at the November 14, 2000 Special Transportation Committee Meeting, you supported the In-Town BRT as the Locally Preferred Alternative (LPA). Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00609

November 13, 2002

Mr. Paul T. Leong
45-630 Hinamoe Loop
Kaneohe, Hawaii 96744

Dear Mr. Leong:

Subject: Primary Corridor Transportation Project

This responds to your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). At the November 14, 2000 Transportation Committee meeting, you supported selecting the Bus Rapid Transit as the Locally Preferred Alternative. Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

HONOLULU NEEDS A TRANSPORTATION SYSTEM THAT BENEFITS ALL!!!

OCT 23 3 58 PM '00
CITY CLERK
HONOLULU, HAWAII

Testimony of Randolph F. Leong
10-26-00 OahuTrans2K Hearing

I. OVERVIEW.

I agree that we must do something to reduce traffic congestion and road-travel time in Honolulu. In our busy lives, TIME has become our most important commodity and we are wasting far too much of it getting from one place to another, especially during the rush hours.

Everyone appreciates that the City Council and the Department of Transportation Services are putting much effort and time into solving this growing problem, and giving us, the public, a chance to express our concerns.

I've looked through the MIS/DEIS Report and attended the City Council public hearing on October 5, 2000. My conclusion: none of the three alternatives offered in the current MIS/DEIS is the answer to Honolulu's transportation problem. My opinions, briefly, on each alternative are:

Alternative 1 - the "No Build" alternative, is not an option. We must be pro-active in finding a long-term solution to our traffic problem. We cannot continue doing the same thing and expect different results.

Alternative 2 - the Transportation Systems Management ("TMS") alternative is not the long-term solution but a pared-down version of it may serve as an interim solution until we do find the answer(s).

Alternative 3 - the Bus Rapid Transit ("BRT") alternative is much too narrow in its focus and solves the transportation problem for only a small segment of our population. Going down this path would be a fatal mistake. Part II focuses on my reasons for this opinion.

II. WHY BRT IS NOT THE ANSWER.

BRT is obviously on the "inside track" in this evaluation process. I believe that it would be a serious mistake to select it, however, because it only benefits a small minority of our road travelers: those who ride use public transportation and high-occupancy vehicles (HOVs). We cannot afford to spend so much (I believe the great majority) of our transportation funds to benefit so few (I believe 8% to 10% of our road users).

A. BRT does not (and will never) serve the needs of the vast majority of our population.

BRT proponents believe that "an efficient transit system would encourage people to use transit rather than drive private vehicles"[1]. This "build it and they will come" philosophy, will be true to some extent, but I am not convinced that this will happen in sufficient numbers to solve our overall traffic problem. My skepticism is based on my belief that many citizens have valid

[1] Section 4.0 of the MIS/DEIS Report- Transportation Impacts-Overview, page 2 of 27.

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reasons/needs to drive a privately-owned vehicle ("POV"), commercial vehicle, or public-utility vehicle to, or during work, including: taxi drivers, tour drivers, salespersons, delivery people, contractors, repair people, parents that need to pickup/drop off children for school, daycare, practices, doctor's appointments, women who work nights, etc.. In addition to these, there are many who may not have such valid reasons/needs, but have an "addiction" for, or a "love affair" with their cars, and will not give it up regardless of the cost.

An interesting suggestion made at the October 5, 2000 Public Hearing before Chairman Duke Bainum and Councilman Steve Holmes, was that all government workers should be required to commute to their jobs by whatever transit system they put into place. How many government workers will be willing and able to utilize BRT daily?

But why question only government workers!? To get a true perspective on this issue, let's each ask ourselves these two questions:

Q/ **"Would I be willing and able to utilize the BRT as my daily means of commuting to work?"**

Q/ **"On those occasions that I do have to drive around town for business purposes, or to run errands during or after work, would I want to depend on the BRT system for these purposes?**

I know what my answers are; and, I think that I'm in the vast majority.

B. **While solving the problem of a small minority, BRT will in fact, make the problem for the majority of our road travelers, much worse!!**

It is my understanding that proponents of BRT predict that ridership on public transportation/HOVs will increase from the current 8% to 10%, to 15% to 20% with BRT.

Q/ **"What about the other 80% to 85% of the population?"**

A/ The answer, I believe, can be found in Sec. 4 of the EIS/DEIS Report addressing Transportation Impacts. In that section, it is admitted that BRT will make the traffic situation worse for this majority ... those who drive POVs, commercial vehicles (cars, vans, trucks, etc.), public-utility vehicles (taxis, limos, tour buses, vans, trolleys, etc.), and other types of transportation (motorcycles, mopeds, and electric GEM vehicles) [2].

Real-world examples of how BRT would likely worsen traffic are the road-construction projects going on around town right now. Take a drive down one of those roadways where just one lane is coned-off for construction. The road space (even if it's just 1 lane) taken up by the construction, even during off-peak times, causes tremendous backups and delays. The proposed

[2] Section 4.0 of the MIS/DEIS Report- Transportation Impacts-Overview, page 2 of 27.

BRT system will reduce road space by 2 lanes, for the rest of traffic in the same way, but on an everyday basis and at all hours... even during peak rush hours.

C. **Let's seek a solution that solves the traffic problem for EVERYONE.**

I submit that the City Council ask the Department of Transportation Services to take another look at the problem, and to find a much broader solution; one that will solve the transportation problems for everyone... not just for the users of public transportation, a small minority of the road-using public.

III. A POSSIBLE SOLUTION: A DUAL MODE SYSTEM

A. **Dualmode systems in general.**

A possible solution may be one incorporating the concept and technology of a dualmode system. Dualmode transportation concepts feature vehicles that can be driven on conventional streets and can also operate on a high-speed automated guideway under computer control. A website that give an overview of various proposed dualmode systems is:

http://faculty.washington.edu/~jbs/itrans/dualmode.htm

Unfortunately, there is no dualmode system currently in operation anywhere in the world. There is one system, however, that is currently being tested, and has fast been attracting attention: the Rapid Urban Flexible ("RUF") system.

B. **The RUF System**

The RUF system was created by Palle R. Jensen, a Danish inventor. A prototype car and track has been built, and is being tested just outside of Ballerup, Denmark. Details, photos and renderings of that system can be found at the following address:

www.RUF.dk

A consortium of public agencies (Danish ministries of Energy, Environment & Education) and private enterprises (multinational corporations including Siemens, Hawker, Mannesmann, and several Danish firms) is sponsoring RUF. Quite recently, Mr. Jensen was invited to speak about RUF at a forum in Aspen, Colorado, on "New Visions in Transportation", presented by the Advanced Transit Association and the National Society of Professional Engineers. A description of the forum held on October 18-19, 2000, and the list of speakers, can be found at the following address:

www.nvt2000.com

The best way to review the Dualmode alternative would be to go to the above websites, but

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for the benefit of those not on the internet, following is a synopsis of the RUF system, which may or may not be the best Dualmode system, or, the best system for Honolulu.

A RUF system, which would essentially be made up of three components: (1) the guideway; (2) electric RUF vehicles; and (3) stations.

(1) The Guideway. This would be a light, single rail (i.e. monorail) that runs along the major highway corridors. For example, for the OahuTrans2K project, a guideway could run along the H-1 freeway from Kapolei, through Pearl City, to Waikiki and the University of Hawaii campus, and along the H-2 freeway from Mililani to Pearl City, where it could link-up with the guideway running along the H-1. Mr. Palle R. Jensen estimates the cost of the guideway to be $7 million per bi-directional mile. The guideway can be at street level, underground, in an above-round/underwater tube, or elevated above ground.

(2) Electric Vehicles. The two types of RUF vehicles have great flexibility and wide appeal. They can drive on streets like regular automobiles and vans for short trips (30-mi range) and accelerate up to 48 mph. For longer trips and commuting, these vehicles can drive up onto the guideway.

(a) *RUF vehicles (2- and 4-passenger vehicles)* can be privately owned, commercially owned, or publicly owned. Private owners can customize their RUF vehicles to their heart's content to reflect their individual lifestyle or status. Car rental firms can rent RUF vehicles to tourists or to anyone in need of a vehicle for a few days.

(b) *MAXI-RUFs (10-passenger van-like vehicles)* can be used in a number of ways: (1) as public buses with fixed routes and timetables; (2) as jitneys, with semi-fixed routes and timetables; (3) as VanPool vehicles, with customized routes and timetables; (4) as public-utility vehicles, such as limos, tour buses, etc.; (5) as school buses, especially for private schools or to transport teams, clubs, etc.; and (6) as commercial vans for deliveries, repairs, etc.

(3) Stations. Stations are where RUF vehicles can get on and off the guideway. They can be built at 3-mile intervals because of the 30-mile range of the RUF vehicles, can pickup and drop off passengers within a relatively-wide radius of the stations. What is a very attractive feature of the RUF system is that the "trains" of RUF vehicles traveling on the guideway, do not stop to allow individual vehicles on or off of the guideway. The train continues to move, slowing down as it approaches the station, and then speeds up after the transfers on and off are made. This feature allows an average speed of about 60 mph once a vehicle gets onto the guideway, making it a truly "rapid" transit.

C. Why a Dualmode system is so attractive

Dualmode systems, in general, show promise mainly because they will have wide appeal to everyone: the users of public transportation, the POV drivers, the environmentalists, and the

taxpayers. For specific characteristics, the RUF system will be used as an example.

1. Commuters and Other Road Users. Commuters (public and private) will like it for many reasons, including:

(1) You can travel door-to-door.
(2) Your travel time is shorter (see charts on page 6).
(3) No transfers.
(4) No standing in the wind and rain (or in the dark) for a bus.

With a private RUF vehicle one gets the added benefits of:

(1) You can make routine stops (pick up kids, groceries, laundry, etc.) without the hassle of getting off and back onto the mass-transit vehicle.
(2) You can carry and store your luggage, books, files, groceries etc. without hassle.
(3) You have the convenience of running out during the workday to run errands away from your workplace.
(4) You can own a vehicle that reflects your personality, lifestyle, status, etc.
(5) You go straight to your destination without stops to pickup other passengers.
(6) You have security (especially at night).
(7) You have privacy and freedom to use the time and space as you desire.

Once on the guideway, one gets the best of both worlds:

(1) You're on "auto pilot" and you can make more productive use of your time (e.g. read, talk on the telephone, surf the internet, watch TV, or even nap, meditate, etc)
(2) You continue moving at a high rate... upwards of 75 mph (@60 mph average), without stopping, until you exit from the guideway.
(3) You form trains with other RUF vehicles to reduce air resistance and get maximum efficiency.
(4) You still have the security and privacy of a POV.

2. Environmentalists. Environmentalists will like it because it is electric. This means less noise, air pollution, greater fuel efficiency, and less wasted time sitting in traffic.

3. Taxpayers. Taxpayers will like it because, in the case of the RUF system, building the guideway is much less expensive than a light-rail (estimates given are $7 million per mile for the RUF guideway) AND, much of the cost will be borne by the commuters, who will be buying the private RUF vehicles themselves, and paying their fares/fees (toll charges on a user-basis, unlike the freeways).

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IV. CONCLUSION.

Honolulu needs a transportation system that solves the traffic problem for everyone, not just a small minority. BRT is not the answer. A dualmode system, like the RUF system, seems to offer a better, broader solution.

I don't know the final answer(s) but do know that now is the time to do our "comparison shopping". We are at a critical crossroads in history; the decision made here will affect our lives, our island, our state, for decades to come. So let's not rush into "blowing our wad" on a system that will cause regrets for decades to come. I submit that we look at other alternatives.

If the Council is interested, I have a power-point presentation and a few simple brochure on the RUF system that Mr. Jensen sent to me. I do not know Mr. Jensen, having only contacted him for the first time in September through email when I learned about the OahuTrans2K bearings. I am not representing anyone, and have no affiliation with Mr. Jensen or his consortium. Also, I live in Hawaii Kai and am not directly affected by the BRT plan. I have done this as a concerned citizen with a deep love for Hawaii, hoping that BRT is not adopted because it quite simply, IS NOT THE TRAFFIC SOLUTION FOR HONOLULU.

Mahalo and Ahui hou.

Randolph F. Leong

Randolph F. Leong

p.s. I am also attaching a rendering of a MAX-RUF "train", and an article on RUF from *EV World*.

Dramatic Savings in Commute Time

A rough estimation of rush-hour commute times today for POVs, and, in 2025 using the BRT and RUF systems is as follows:

	Approx. Distance	POV (Yr. 2000)	BRT (Yr. 2025)	RUF (Yr. 2025)
Kapolei to Downtown	21 mi	1 hr. 15 min.	35 minutes + transfer time*	26 minutes**
Mililani to Downtown	20 mi	1 hr. 15 min.	36 minutes + transfer time*	25 minutes**
Pearlridge to Downtown	12 mi	50 min.	17 minutes + transfer time*	17 minutes**
Kapolei to UH-Manoa	24 mi	1 hr. 25 min.	48 minutes + transfer time*	29 minutes**
Mililani to UH-Manoa	23 mi	1 hr. 25 min.	49 minutes + transfer time*	28 minutes**
Pearlridge to UH-Manoa	15 mi	1 hr.	30 minutes + transfer time*	20 minutes**
Kapolei to Honolulu Zoo	26 mi	1 hr. 40 min.	53 minutes + transfer time*	41 minutes**
Mililani to Honolulu Zoo	25 mi	1 hr. 40 min.	54 minutes + transfer time*	40 minutes**
Pearlridge to Hon. Zoo	17 mi	1 hr. 15 min.	35 minutes + transfer time*	32 minutes**

* transfer times are unknown and the number of transfers will vary from route-to-route

** these RUF estimated times are based on 60 mph average speed on the guideway which can run along the freeway routes, and 20 mph average speed once the electric vehicles leaves the guideway and drives on the streets.

NOTE: The time it takes to get from homes to stations and from stations to final destinations is not included in these calculations. The RUF system would generally be superior in this regard because in most cases, passengers get door-to-door transportation vs. the walking or shuttling to-and-from stations that would be required in the BRT system.

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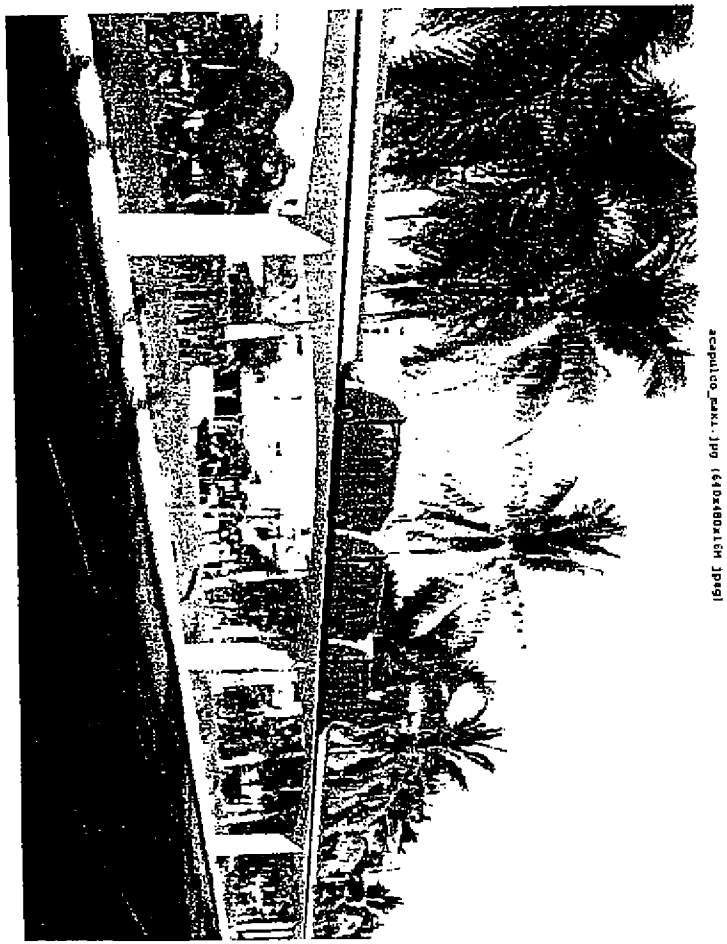
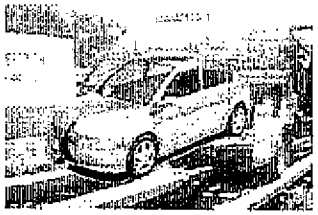


RUF Idea On A Rail

By Bill Moore, Editor, EVWorld

[Originally posted at EVWorld, reposted with permission]



Rapid Urban Flexible concept EV combines flexibility of individual automobile with monorail train concept. Prototype "mule" passes first test in June, 2000.

RUF DK Web Site

The 'RUF' idea is you drive your short-range (30 mi.) electric vehicle to the nearest monorail onramp. A electronic guide system buried under the roadway deftly steers your car onto the monorail. Once you're on the rail, the car's automatic drive system engages and you are whisked up more than 12 feet onto the main rail line, merging safely with other traffic. Within a minute you are racing -- hands-free -- towards the center of town at 60 miles per hour as part of a "train" of six or seven other RUF-equipped Evs.

Until this past June, the Rapid Urban Flexible EV concept was only... well a concept. But this summer RUF took a significant step forward when a prototype "mule" rolled onto a 24 meter-long test track outside of Ballerup, Denmark. Looking nothing like the sleek 1998 concept mockup that gave physical form to the idea or the more conventional-looking Z-9 and Z-11 concept cars, the RUF mechanical test bed sports a clear plastic canopy and a heavy steel tube frame. It boasts eight wheels: four normal road wheels and four smaller track wheels hidden discretely along either side of the vehicle's centerline. There are also separate steel drive wheels that propel the vehicle along the guide rail.

Originally conceived of more than a decade ago, the RUF system is the brainchild of Danish inventor Palle Jensen. Since the concept was first presented in 1988, Jensen has successfully garnered the support of a number of major sponsors including three Danish ministries (Energy, Environment, Education) and a number of multinational corporations including Siemens, Hawker and Mannesmann, as well as a bevy

Additional Photos

Prototype test vehicle on monorail track

Prototype test mule on monorail track

Prototype test mule

Z11 concept vehicle

Z9 concept vehicle

Original RUF mockup vehicle

RUF prototype monorail close-up

AR00015888

of Danish firms.

What Jensen proposed and is finally seeing take shape is an electric vehicle that has a v-shaped channel down its centerline. The vehicle drives onto the guide rail where its four track wheels rest on supporting side tracks. The main road wheels no longer make contact with the ground. A pair of drive wheels firmly clasp the guide rail, which is also "hot" and provides the electricity to drive the test bed, as well as recharge its battery. A rail brake stops the vehicle.

Jensen and his collaborators propose to create a system of elevated guide ways on which thousands of RUF EVs, both publicly and/or privately owned would move commuters quickly 4 meters above street level. Essentially they envision a combination of monorail train and autonomous electric vehicles which can be driven up to 30 miles before needing to be recharged, either by parking on a side track or by being plugged into a charger similar to a conventional EV.

The goal of the RUF system is to reduce congestion while overcoming some of the more nagging problems confronting EVs such as short range and long recharge times.

According to RUF International's calculations, a single highway lane can accommodate a maximum of 2,000 cars per hour per lane. By contrast, they say the RUF system could handle as many as 3,600 vehicles per hour per rail. In addition, four rails can be installed in the same space as three highway lanes, making it possible to move many more passengers much more efficiently than our current system and with far less pollution and wasted energy.

Jensen also proposes what he calls the Maxi-RUF, a ten-passenger vehicle that would use the same track system, sort of electric mini-buses. As might be imagined, the RUF system will also be heavily dependent on smart vehicle technology that

as three highway lanes, making it possible to move many more passengers much more efficiently than our current system and with far less pollution and wasted energy.

Jensen also proposes what he calls the Maxi-RUF, a ten-passenger vehicle that would use the same track system, sort of electric mini-buses. As might be imagined, the RUF system will also be heavily dependent on smart vehicle technology that automatically routes the vehicle and directs its switching to other tracks. The driver/user simply programs into the car where it is they want to go and the computer handles the rest. It will even communicate with other vehicles to see if they are going to the same destination and automatically form "trains" to increase traffic density and reduce energy usage by "drafting".

Just as our current highway system is used for both passengers and cargo, automated cargo carriers can also use the RUF system. Shipments could be dispatched from warehouses and dropped at distribution points where EV "tractors" could pick them up for deliveries to outlying stores and shops.

The roll-out of the test bed in Ballerup doesn't guarantee the RUF system will every reach deployment, but the fact that some very serious "players" are participating in the experiment bodes well.

Rapid Urban Flexible concept EV combines flexibility of individual automobile with monorail train concept. Prototype "mule" passes first test in June, 2000.

Rapid Urban Flexible concept EV combines flexibility of individual automobile with monorail train concept. Prototype "mule" passes first test in June, 2000.

www.RUF.DK

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DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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TPD02-00588

November 13, 2002

Mr. Randolph F. Leong
900 Fort Street Mall, Suite 1200
Honolulu, Hawaii 96813

Dear Mr. Leong:

Subject: Primary Corridor Transportation Project

This is in response to your October 26, 2000 letter and your oral testimony at the October 26, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I've looked through the MIS/DEIS Report and attended the City Council public hearing on October 5, 2000. My conclusion: none of the three alternatives offered in the current MIS/DEIS is the answer to Honolulu's transportation problem. Alternative 1 - "No Build" alternative, is not an option. We must be pro-active in finding a long-term solution to our traffic problem. We cannot continue doing the same thing and expect different results. Alternative 2 - the Transportation Systems Management ("TMS") alternative is not the long-term solution but a pared-down version of it may serve as an interim solution until we do find the answer(s). Alternative 3 – the Bus Rapid Transit ("BRT") alternative is much too narrow in its focus and solves the transportation problem for only a small segment of our population. Going down this path would be a fatal mistake.*

   Response: The transit alternatives analyzed in the Primary Corridor Transportation Project are intended to be part of a comprehensive, multi-modal solution to the future transportation needs of Oahu. Highway, bicycle, pedestrian and other modal improvements along with the Refined LPA are included in the island's long-range transportation plan, TOP 2025 prepared by OMPO.

2. *BRT is obviously on the "inside track" in this evaluation process. I believe that it would be a serious mistake to select it, however, because it only benefits a small minority of our road travelers: those who ride use public transportation and high-occupancy vehicles (HOVs). We cannot afford to spend so much (I believe the great majority) of our transportation funds to benefit so few (I believe 8% to 10% of our road users).*

   Response: See response to comment #1.

3. *BRT proponents believe that "an efficient transit system would encourage people to use transit rather than drive private vehicles". " This "build it and they will come' philosophy, will be true to some extent, but I am not convinced that this will happen in sufficient numbers to solve our overall traffic problem. My skepticism is based on my belief that many citizens have valid reasons/needs to drive a privately owned vehicle ("POV"), commercial vehicle, or public-utility vehicle to, or during work, including: taxi drivers, tour drivers, salespersons, delivery people, contractors, repair people, parents that need to pickup/drop off children for school, daycare, practices, doctor's*

appointments, women who work nights, etc. In addition to these, there are many who may not have such valid reasons/needs, but have an "addiction" for, or a "love affair" with their cars, and will not give it up regardless of the cost.

Response: We agree there are some people whose transportation needs are best served by a private automobile. However, the goal of the Refined LPA is to provide an attractive, affordable, dependable transportation option to the private automobile. The Refined LPA increases the people carrying capacity throughout the Primary Corridor and preserves and improves the quality of life of Oahu's residents by improving transportation linkages within the Primary Corridor and between Kapolei and the Urban Core.

4. *An interesting suggestion made at the October 5, 2000 Public Hearing before Chairmen Duke Bainum and Councilman Steve Holmes, was that all government workers should be required to commute to their jobs by whatever transit system they put into place. How many government workers will be willing and able to utilize BRT daily?*

   Response: Government workers will have the freedom of choice along with all other workers on whether to use the proposed transit system.

5. *But why question only government workers!? To get a true perspective on this issue, let's each ask ourselves these two questions: Q/ "Would I be willing and able to utilize the BRT as my daily means of commuting to work?" Q/ "On those occasions that I do have to drive around town for business purposes, or to run errands during or after work, would I want to depend on the BRT system for these purposes?*

   Response: The Primary Corridor Transportation Project (PCTP) is the result of public involvement. Public involvement in the project began in 1998, at the very beginning of the planning process, and remains ongoing. Input from the public was critical in developing and evaluating alternative transportation solutions. The development and refinement of the three alternatives discussed in the MIS/DEIS was the result of public input.

   In addition to four rounds of Oahu Trans 2K public workshops attended by a total of 1,250 individuals, meetings were held with more than 100 governmental agencies, elected officials, businesses, and business, community and civic organizations. The public also had the opportunity to provide input on the various alternatives at a series of four City Council Transportation Committee Meetings prior to selection of the Locally Preferred Alternative (LPA).

   The public was given an opportunity to comment on the Environmental Impact Statement Preparation Notice (EISPN) and the Notice of Intent to Prepare an EIS (NOI). The public provided comments on the MIS/DEIS during a 45-day review period. These comments have now been addressed. The availability of the final EIS will be broadly announced.

   Even after the NEPA process has concluded and the ROD has been issued, public involvement will continue in many areas, such as transit centers, transit stops, joint development, streetscapes, landscaping, street tree master plan, substation location and design studies, aesthetic design of vehicles, ITS and particulars of the ticketing system.

6. *It is my understanding that proponents of BRT predict that ridership on public transportation/HOVs will increase from the current 8% to 10%, to 15% to 20% with BRT, Q/ What about the other 80% to 85% of the population?" A/ The answer, I believe, can be found in Sec. 4 of the*

EIS/DEIS Report addressing Transportation Impacts. In that section, it is admitted that BRT will make the traffic situation worse for this majority ... those who drive POVs, commercial vehicles (cars, vans, trucks, etc.), public utility vehicles (taxis, limos, tour buses, vans, trolleys, etc.), and other types of transportation (motorcycles, mopeds, and electric GEM vehicles".

Response: The goal of the Refined LPA is to provide an attractive, affordable, dependable transportation option to the private automobile. The Refined LPA increases the people carrying capacity throughout the Primary Corridor and preserves and improves the quality of life of Oahu's residents by improving transportation linkages within the Primary Corridor and between Kapolei and the Urban Core. As documented in Chapter 4 of the FEIS, congestion will be less for motorists as well as transit riders with the Refined LPA compared to the No-Build and TSM Alternatives.

7. *I submit that the City Council ask the Department of Transportation Services to take another look at the problem, and to find a much broader solution; one that will solve the transportation problems for everyone.. not just for the users of public transportation, a small minority of the road-using public.*

Response: See response to comment #1.

8. *A possible solution may be one incorporating the concept and technology of a dualmode system. Dualmode transportation concepts feature vehicles that can be driven on conventional streets and can also operate on a high-speed automated guideway under computer control. A website that gives an overview of various proposed dualmode systems is: http://faculty.washington.edu/~jbs/itrans/dualmode.htm. Unfortunately, there is no dualmode system currently in operation anywhere in the world. There is one system, however, that is currently being tested, and has fast been attracting attention: the Rapid Urban Flexible ("RUF") system.*

The RUF system was created by Palle R. Jensen, a Danish inventor. A prototype car and track has been built, and is being tested just outside of Ballerup, Denmark. Details, photos and renderings of that system can be found at the following address: www.RUF.dk.

A consortium of public agencies (Danish ministries of Energy, Environment & Education) and private enterprises (multinational corporations including Siemens, Hawker, Mannasmann, and several Danish firms) is sponsoring RUF. Quite recently, Mr. Jensen was invited to speak about RUF at a forum in Aspen, Colorado, on "New Visions in Transportation", presented by the Advanced Transit Association and the National Society of Professional Engineers. A description of the forum held on October 18-19, 2000, and the list of speakers, can be found at the following address: www.nvt2000.com.

(2) Electric Vehicles. The two types of RUF vehicles have great flexibility and wide appeal. They can drive on streets like regular automobiles and vans for short trips (30-mi range) and accelerate up to 48 mph. For longer trips and commuting, these vehicles can drive up onto the guideway. RUF vehicles (2- and 4-passengar vehicles)...MAXI-RUFS (1-passenger van-like vehicles).

(3) Stations are where RUF vehicles can get on and off the guideway. They can be built at 3-mile intervals because of the 30-mile range of the RUF vehicles, can pickup and drop off passengers within a relatively wide radius of the stations. What is a very attractive feature of the RUF system is that the "trains" of RUF vehicles traveling on the guideway, do not stop to allow individual

vehicles on or off of the guideway. The train continues to move, slowing down as it approaches the station, and then speeds up after the transfers on and off are made. This feature allows an average speed of about 60 mph once a vehicle gets onto the guideway, making it a truly "rapid" transit.

Dualmode systems, in general, show promise because they will have wide appeal to everyone: the users of public transportation, the POV drivers, the environmentalists, and the taxpayers.

Response: Thank you for this information. The RUF system information on the Website shows that this concept is at a very preliminary stage of development. It is not detailed enough to determine the exact power infrastructure, however it is clear that the electronic transportation mode requires new, dedicated, non-flexible guide beam consisting of a rail on an I-beem, even if it is routed along existing highways. The I-beam is surrounded by steel plates and the upper part is covered by fiber concrete. This is a semi-permanent guideway that cannot be shared with other modes of transportation. If at grade, the guide beem would not allow pedestrians and other traffic to cross it. If elevated, it would block views.

The RUF system does not meet many of the project technology requirements for no dedicated right-of-way since it requires a guideway. It appears incapable of being re-routed around blockages, the guideway could not be shared with other vehicles, and it does not meet the criterion that the technology be service proven or close to service proven.

9. *A RUF system, which would essentially be made up of three components: (1) the guideway; (2) electric RUF vehicles; and (3) stations. (1) The Guideway. This would be a light, single rail (i.e., monorail) that runs along the major highway corridors. For example, for the Oahu Trans 2K project, a guideway could run along the H-1 Freeway from Kapolei, through Pearl City, to Waikiki and the University of Hawaii campus, and along the H-2 freeway from Mililani to Pearl City, where it would link-up with the guideway running along the H-1. Mr. Palle R. Jensen estimates the cost of the guideway to be $7 million per bi-directional mile. The guideway can be at street level, underground, in an above-round/underwater tube, or elevated above ground.*

Response: The project established criteria for technology evaluation. At least four of these criteria cannot be met with a RUF system:

1. Selected technologies must not require a new dedicated ROW. RUF would require a new guideway or right-of-way, even it was to be built along the major highway corridors.
2. Selected technologies must have the capability to be re-routed around blockages. RUF guideway could not be re-routed without substantial re-construction.
3. Selected technologies must be in an advanced stage of development. RUF systems have yet to be demonstrated.
4. Selected technologies must be at-grade not elevated. The RUF would have to be grade-separated or it would violate another criteria, that is that it be possible to cross the technology on foot or with other vehicles.

10. *Honolulu needs a transportation system that solves the traffic problem for everyone, not just a small minority. BRT is not the answer. A dualmode system, like the RUF system, seems to offer a better, broader solution.*

Response: See response to comment #8.

11. *As fer as the endurance, the durability of the impact is gonna go on for generations. And that's how I see it. That's why I urge the Council not to select the BRT system.*

    Response: Comment noted.

12. *After the two main reasons that I feel that it's not the system for Honolulu is, number one, it serves only one out of five of the road users in Honolulu. What happens to the four of the other five? I think this morning's paper, in the editorial section, a person, I think his name was Bechman, Welly, he submitted a letter to the editors. I think that expresses the point that I had here briefly. The BRT makes the traffic problem much worse for the four of the other five transit.*

    Response: The PCTP has focused on the transit portion of the Island-wide transportation plan. Highway improvements have been addressed in the OMPO regional plan update (TOP 2025).

    It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

13. *So what system should we select? I am told that that issue is not before the Council at this point. But, I did submit in the written testimony some websites on what's termed the dualmode system which I feel is a much superior system to any of the alternatives offered here. [Gary Okino: Mr. Leong, the system you propose, the dualmode system, is basically a...looks like a fixed rail system.] It's a combination. What it is it incorporates the best features of both the private vehicle as well as the rail system. And the private vehicle is the electric. Yeah, you have both electric cars as well as electric van type vehicles that can have ten passengers. And those vehicles can travel on the roadways just like any ordinary automobile. Whenever you're going to make a longer trip, you get up, you access onto this monorail which is built above the freeway. So, you do have the benefits of security, flexibility, convenience of an automobile as well as the benefits of a light-rail system. And that's the efficiency, the short commute times. [Gary Okino: Yeah. I guess the beauty of the system is because it's on a grade-separated system. Doesn't mix with highway traffic.] It does not take up any of the road use as the other users, the four of the other five commuters will not be affected by this system because it doesn't take up any of the road space.*

    Response: See response to comment #8.

14. *[Gary Okino: Mr. Leong, the system you propose, the dualmode system, is basically a...looks like a fixed rail system.] It's a combination. What it is it incorporates the best features of both the private vehicle as well as the rail system. And the private vehicle is the electric. Yeah, you have both electric cars as well as electric van type vehicles that can have ten passengers. And those vehicles can travel on the roadways just like any ordinary automobile. Whenever you're going to make a longer trip, you get up, you access onto this monorail which is built above the freeway. So, you do have the benefits of security, flexibility, convenience of an automobile as well as the benefits of a light-rail system. And that's the efficiency, the short commute times. [Gary Okino: Yeah. I guess the beauty of the system is because it's on a grade-seperated system. Doesn't mix with highway traffic.] It does not take up any of the road use as the other users, the four of the other five commuters will not be effected by this system because it doesn't take up any of the road space.*

    Response: See response to comment #8.

15. *[Gary Okino: Well, you know, I sort of agree with you. I think the fixed-rail system is the ultimate solution to this. But, you know, the thing that works against a fixed guideway system is the cost of the fixed guideway.] I've been in communications with the inventor. He estimates the rail cost to be $7 million a mile which is much, much less than the prior fixed-rail systems that were proposed for Honolulu. The cost of a station because that's an important part. He says it's approximately the average and it depends on the size and other factors. Roughly about $10 million a station. So, my rough estimates is you can cover the entire highway system, the freeway system that is being covered by this BRT system for about the same price, $7 million a mile and approximately 31 miles of freeway, that's $220 million. If you do two rails, which is not a bad idea, that would be about $440 million. Plus the vehicles would bring it up to .... And the stations ... I estimated ten stations. That's $100 million and with the vehicles, 2,000 MAX-RUFS.*

    Response: See response to comment #8.

16. *If you look at the system, MAX-RUFS is the ten-passenger van type thing that can be used as bus. Can be used like a jitney on the regular roads. It could be used as a van pool. So it has tremendous flexibility and you could buy 2,000 of those and still be within the budget that's allocated for BRT.*

    Response: See response to comment #8.

17. *I think the initial proposal to be parallel to the BRT system, you'd build this rail only over the freeways. That would, you know, at least not be objectionable to the people that are concerned about multi-grade systems on the roadways. You know, you just leave it on the freeways, over the freeways and, you know, I think ... In fact, I said every private vehicle that on this rail is off of the freeway. So it lightens up the traffic on the freeway too. If people prefer driving their vehicles on the freeway, they can. You know, they still can.*

    Response: See response to comment #8.

18. *[Duke Bainum]: Mr. Leong, one question. Did your cost estimates include the purchase of right-of-way?] No. No, it doesn't. Because I... Like I said, you know the freeway system is the only area that I see it as being built initially.*

    Response: Comment noted.

19. *And, I'm hoping that, in conclusion, that I hoping whatever decision that you people make would relieve the current problem with our transportation and will be a great benefit for our community.*

    Response: The commenter is making a statement to the City Council.

20. *As fer as the endurance, the durability of the impact is gonna go on for generations. And that's how I see it. That's why I urge the Council not to select the BRT system.*

    Response: Comment noted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
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DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00589

November 13, 2002

Mr. Bill Leveau
1676 Ala Moana Boulevard, #602
Honolulu, Hawaii 96815

Dear Mr. Leveau:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm a recent arrival who happened to have brought his vehicle with him. Sorry about that. I love Hawaii.*

   Response: Comment noted.

2. *You have a great mass transit system, and I think this will be a great improvement to it.*

   Response: Thank you for supporting the public transportation system and the BRT project.

3. *The one concern I do have is that it would be taking up exclusive lanes, which might make it a little more difficult for the existing traffic.*

   Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

4. *The one positive thing I do like about it is that you're proposing 14-foot lanes which also encompasses room for bicycles. I happen to be a bicycle rider, love it. I rode here from the condominium right across the Yacht Harbor. I have a beautiful view, and I wouldn't move anyplace else.*

   Response: Comment noted.

5. *Unfortunately, I was clipped by a vehicle on Kuhio Street, and that's because it's a fairly narrow street, the lanes are narrow. And that could happen in the future. With the improvements, with the mass transit wider lanes, that allows more room for a bicycle rider, whether it be a person with challenges like myself, or individual children, students going to college, whatever. Hopefully, you can reduce the number of exclusive lanes and allow the vehicles to use the public right-of-way as best as you can.*

   Response: Safety for bicyclists has been taken into consideration in designing the In-Town BRT. The Hawaii Bicycling League has been involved in reviewing the plans as they have evolved.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

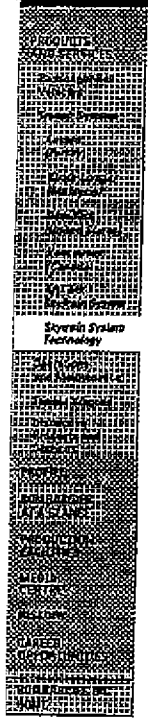
Testimony Against the In-Town BRT portion of the Primary Transportation Corridor Project

Thursday, October 5, 2000
by Wendell Lum, member, Kaneohe Neighborhood Board No. 30

Suggest looking into a faster alternative, an automated people mover (APM) system, which is a light rail transit system but very quiet, not creating traffic congestion by not taking away lanes of traffic with high speed that only a grade-separated exclusive right-of-way can give and guaranteed to take cars off the road by cutting public transportation time significantly with 56 mph maximum speed and in much more comfort and driverless, being fully automated

Example: Look at Vancouver SkyTrain for information of cost in 1994 US dollars for 1986 initial phase including extensions in 1990 and 1994 attached to this written testimony. Being 17.9 miles long it is one of the most heavily used light rail transit system and highly successful. See attached table showing similar existing APM systems in Kuala Lumpur, Malaysia; Docklands, England; Lille, France; Turin, Italy; four cities in Japan and many others under construction currently in various parts of the world. More extensions are currently being proposed for Vancouver.

BOMBARDIER
TRANSPORTATION



Skytrain System Technology

Vancouver's Skytrain is a fully automated, medium-to-high capacity line-haul rapid transit system. The principal features of the technology include Linear Induction Motor (LIM) propulsion combined with a unique steerable axle suspension, which together provide reliable performance and superior ride comfort under stringent alignment constraints and all climatic conditions. The moving block Automatic Train Control (ATC) system enhances the operational flexibility and expandability of the transit system to meet sudden changes in passenger demands and much greater, long-term travel demand.

The main benefits of Skytrain system technology are the very low noise, vibration and electromagnetic interference levels. The LIM propulsion system has no moving parts and therefore requires very little maintenance. This type of propulsion system provides direct linear movement and therefore eliminates the need for gearboxes, which are a major source of noise. Since Skytrain vehicles use magnetic force to accelerate and brake, the friction force between the vehicle wheels and the rails normally required to move a conventional train is not needed.

The Skytrain System proposed for the cities of Vancouver, Burnaby, Coquitlam and New Westminster incorporates the most recent advances in electrical subsystems, and increases the passenger-carrying capacity of the original Skytrain vehicle by 50%. The new vehicle combines the superior automation capabilities that have been demonstrated in existing MK I systems with the capacity to move large numbers of people - a unique solution to line-haul

transportation demands.

The new technology is similar to that currently being implemented on Phase 1 of the Advanced Rapid Transit (ART) MK II in Kuala Lumpur, Malaysia. The Bombardier Consortium, under a turnkey Electrical and Mechanical (E & M) contract, is supplying most of the system-wide elements, including 70 vehicles for the 29-km fully automated dual-track line.

Bombardier Transportation, a member of the AirRail Transit Consortium (ARTC), was awarded the contract for the JFK International Airport automated AIRTRAIN system in May 1998. Incorporating the latest generation of linear motor technology, the JFK System will be 13 km long and will include a fleet of 32 vehicles serving 10 stations.

Skytrain-type Systems have demonstrated over 35 years of safe cumulative service

Phase 1 of the Kuala Lumpur driverless system entered revenue service in September 1998. Serving 24 stations, the System features the second generation of Skytrain vehicles.

The Vancouver Skytrain opened for revenue service in 1986. Its 150-vehicle fleet serves 20 stations along the 28.9 km dedicated route. Skytrain carried over 41 million passengers last year.

The Vancouver Skytrain and the Kuala Lumpur ART MK II are the longest fully automated rapid transit system in the world.

Scarborough's Rapid Transit System, in operation since 1985, has six stations and operates 28 cars on the 7.1-km RT feeder / distributor line.

In revenue service since 1987, the Detroit Downtown People Mover carries upwards of

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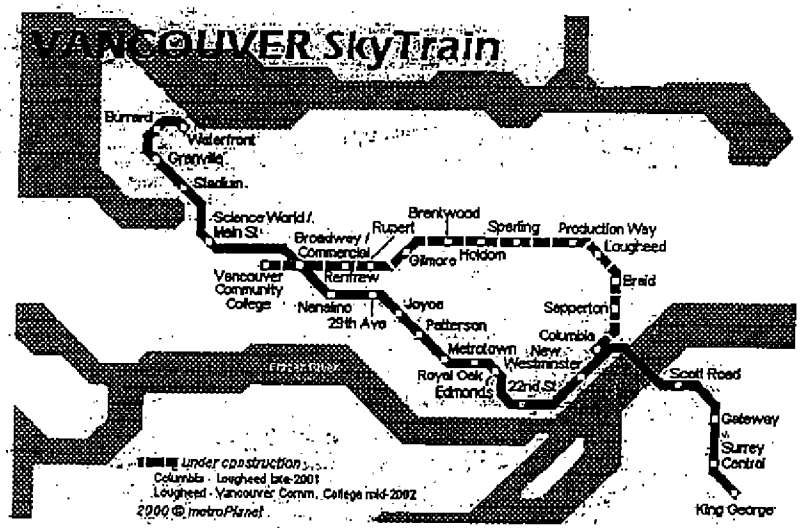
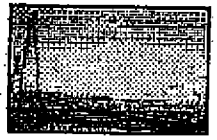
VANCOUVER British Columbia Canada



Vancouver (British Columbia, Canada) is situated on the west coast not too far from the U.S. border. The metropolitan area has about 2 million inhabitants. Vancouver hosted the 1986 World Expo.



SkyTrain on SkyBridge (Photograph courtesy of Nikolaus Schwandl)

The Vancouver Metro, called **SkyTrain**, is an automated light rail line starting in downtown Vancouver and serving the southeastern neighborhoods of the metropolitan area.SkyTrain runs mainly on an elevated structure with trains every 2-3 minutes. Mon-Sat 5:35 - 1:15, Sun 7:50 - 24:15.

Station platforms are 80m long which allows 6-car-trains (usually 4-car-trains used). The average station distance is 730m in the city center area and 1750 in other areas. All stations (not *Granville*) have elevators.

Trains have names like *Spirit of Victoria*, *Spirit of Vancouver*, etc.

History:

Jan 3, 1986 - 21.4 km (15 stations) - *Waterfront - New Westminster*

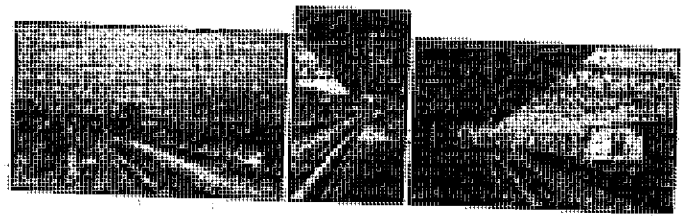
March 16, 1990 - 3.2 km - *New Westminster - Scotts Road* (including Sky Bridge across Fraser River - 616m)

1994 - 4 km - *Scotts Rd - King George*

Total length: 28.6 km (only 1.3 km in a former railway tunnel in downtown Vancouver - *Burrard* and *Granville*, short stretches between *New Westminister* and *Columbia*, and *Scotts Rd - King George* also underground), total traveling time is 39 minutes.

Apart from SkyTrain there is the West Coast Express which only operates into Vancouver in the mornings and from Vancouver in the evenings.

A second line is being built to connect *Broadway* to *New Westminster* scheduled to open late-2001 between *Columbia* and *Lougheed* Mall, the remaining section will be put into service by mid-2002. It will be mostly elevated but partlyunderground. See link below for details.



Pictures courtesy of Matthew Huston

Links

Coast Mountain Bus Company - Skytrain Page - SkyTrain (Official Page)

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57,000 people on peak days and employs 12 cars along a 4.7-km single-lane loop.

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FTA U.S. Department of Transportation

AUTOMATED PEOPLE MOVER APPLICATIONS: A WORLDWIDE REVIEW

L. David Shen[1], Jian Huang[2] and Fang Zhao[3]

ACKNOWLEDGEMENTS

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ABSTRACT

Automated people mover (APM) systems consist of automated, electric-powered, driverless vehicles operated singly or in multi-car trains on steel or concrete guideways. APM systems provide a high quality of service and are capable of moving between 2,000 to 25,000 passengers per hour per direction. Over the past two decades, APM technology has been extensively used for circulation service in airports, recreational parks and central business districts. APM technology has also been used for trunk line transit service, such as the VAL system in Lille, France, and the SkyTrain in Vancouver, Canada, both of which are significantly successful. This paper attempts to conduct a worldwide review of APM applications for urban transit and airport circulation services to obtain a full understanding of the costs, benefits, capabilities and efficiencies of this advanced transit technology. It may be concluded that APM systems are a suitable mode of high level-of-service for trunk line transit service in a medium population area and for circulation services in major activity centers such as airports, recreational and central business district areas.

KEYWORDS

: Automated People Mover, Level-of-Service, Capital Cost, Mass Transit, Guideway Transit System, Airport.

INTRODUCTION

Over the last two decades, the automated people mover (APM) is one of the most significant developments in transit technology. APMs can carry from 2,000 to 25,000 passengers per hour per direction with headways as short as 60 seconds and even shorter than this for small APM systems, offering convenience comparable to riding modern elevators. The ride quality for APMs is among the best of any transit system in the world. APM vehicles travel at speeds up to 90 km/h (56 mph) and accelerate and decelerate smoothly and swiftly. The vehicles, which are typically comprised of cars of urban transit bus size, stop and start automatically, and they can operate in an on-demand mode during off-peak hours to minimize energy consumption or

maintain a good service frequency to reduce passengers' waiting time without incurring too much operating expenses. Besides, APM systems have also kept an excellent record of reliability and safety.

APMs have been extensively operated within restricted major activity centers such as airports, entertainment and educational complexes, large retail and employment centers and urban central business districts (CBD). There have been over fifty airport APM applications worldwide. APMs have their obvious advantages, which include high ride quality, short headways, flexibility in operation, excellent reliability and safety records, etc. APM technology has also been used for trunk line transit services, such as the SkyTrain in Vancouver, Canada, and the VAL system in Lille, France, both of which are significantly successful. Today, one sixth of all transit passengers in the Vancouver region use the SkyTrain for all or part of their daily trip. In other words, the SkyTrain carries 35 million passengers annually at a rate of 110,000 trips per day, making it in the last decade, one of the most heavily used rail transit systems in North America (BC 1994). The VAL system in Lille, France is also an example of a successful line haul APM applications in Europe. In 1993, the Lille VAL system carried 50 million passengers; 230,000 daily on working days. In addition, the farebox recovery ratio of the VAL system is 120 percent, which means it is profitable (The VAL Metro). For the Vancouver SkyTrain the ratio is about 100% (Interview 1994). Some of the line haul APM systems presently in operation or under construction are listed in Table 1.

Table 1. Line Haul APM Systems in the World

System	Status	Length (miles)	No. of Stations	No. of Vehicles	Line Capacity (pphpd)
Ankara Metro, Turkey	UDC[1]	9.4	12	108	-[2]
Docklands, England	Operating	16.7	35	80	15,600
Bordeaux, France	UDC	6.2	16	64	-
Lille, France	Operating	15.7	36	83	24,000
Lyon, France	UDC	-	-	-	-
Mexico City SkyTrain	UDC	13.1	27	60	-
Rennes, France	UDC	5.6	15	16	-
Toulouse, France	Operating	6.2	15	29	-
Turin, Italy	UDC	5.6	16	34	-
Vancouver SkyTrain, Canada	Operating	17.9	19	130	25,000
Taipei, Taiwan	UDC	7.2	12	102	24,000
Yamanote Chiba	Operating	5.0	-	-	1,900
Kokura Kitakyusyu	Operating	5.2	-	-	4,800
Kobe Portliner, Japan	Operating	4.0	9	72	10,800
Kobe Rokkoliner, Japan	Operating	2.8	-	-	10,000
Yokohama, Japan	UDC	6.7	14	95	4,300
Osaka, Japan	UDC	4.1	8	60	5,000

Hiroshima, Japan	UDC	11.4	-	-	4,000

Note:
[1] UDC stands for underconstruction

[2] - indicates not available

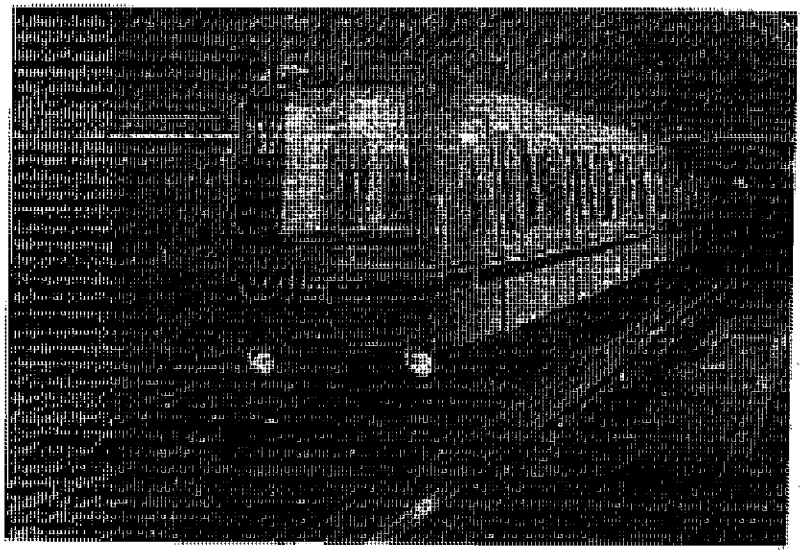
The objective of this paper is to conduct a worldwide review of APM applications for urban transit and airport circulation services to obtain a full understanding of the costs, benefits, capabilities, and efficiencies of this advanced transit technology. In the urban transit area, the Lille VAL, the Vancouver SkyTrain, the Declineds Light Railway in England, and the Miami Metromover will be examined. The SK system in Charles De Gaulle (CDG) International Airport in Paris, France, the APM system in New Denver International Airport and the APM system in Newark International Airport, New Jersey will be reviewed as representatives of airport APM systems. The review of these represented APM systems will be focused on their costs, benefits, capabilities and efficiencies.

URBAN AUTOMATED PEOPLE MOVERS

The VAL System in Lille, France

The VAL system in Lille, France, was the first line-haul APM system in the world. Shown in Exhibit 1, the existing system is 25.3 km in length and has 34 stations. The line capacity of the system is 24,000 passengers per hour. Lille is an old, dense, multi-centered metropolitan area, located in the north of France. It is the fourth largest urban area in the country, with a population of 1.1 million in an area of 600 sq-km.

Exhibit 1 The VAL System in Lille, France



The Lille VAL system was initially conceived as a link to connect the old city with the new town where the new University of Lille campus is located. The decision was made to choose APM technology because of its capacity to provide frequent service while occupying a smaller space. Options to expand the highway were considered, but rejected as being too costly and disruptive to the historic city center. Heavy rail was also considered, but unjustifiable due to the density of the area. In 1993, the Lille VAL system carried 50 million passengers at a rate of 230,000 daily on weekdays (The VAL Metro). Many existing heavy rail systems in the world carry less people than the Lille VAL system.

The SkyTrain in Vancouver, Canada

Greater Vancouver, a metropolitan area located on the west coast of Canada, has a population of about 1.6 million and an area of 640 sq-km. It has a strong, active downtown, low density suburbs with some medium density clusters, many highway bottlenecks and few freeways. In 1980, theSkyTrain system, shown in Exhibit 2, was initiated to provide an alternative to the automobile and bus along a long-established corridor, to channel metropolitan growth into an efficient transit oriented corridor. Additionally, the SkyTrain was built to serve crowds and as a demonstration of new technology for Expo86, whose theme was transportation.

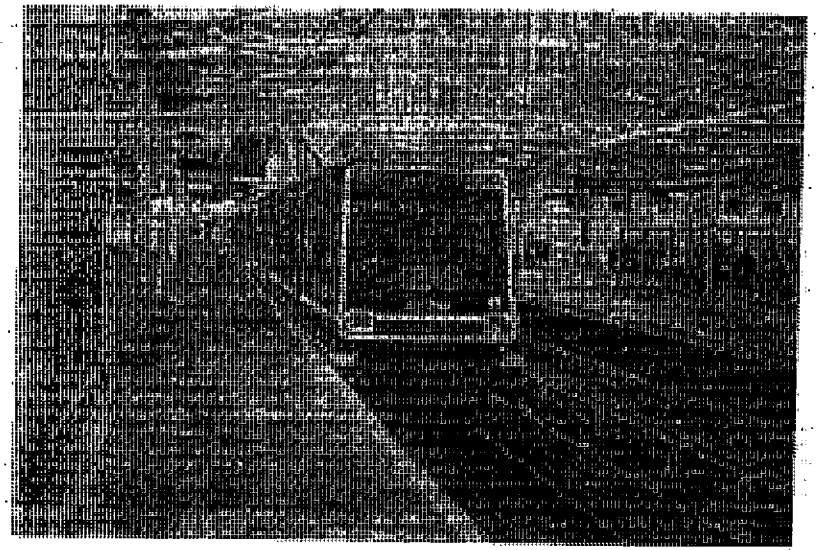
Exhibit 2 The SkyTrain in Vancouver, Canada

The Vancouver SkyTrain was the first line-haul APM transit system in North America. The first phase of the SkyTrain was opened in 1986; Subsequently, two extensions opened in 1990 and 1994. The system is 28.8 km in length and has 20 stations. The line capacity of the system is 25,000 passengers per hour. The SkyTrain system has integrated its fare and operating schedules with the Seabus at the Waterfront station and buses at all stations. In FY94, 35.8 million passenger-trips were made on the SkyTrain at a rate of 133,000 weekday passenger-trips (BC 1994).

Docklands Light Railway in London, England

The Docklands Light Railway (DLR) was initiated by the idea to regenerate Docklands by stimulating real estate redevelopment in this formerly derelict area. The DLR system is also to provide a low volume, low cost but high quality transit linkage into the London Underground and commuter rail networks. The initial system had 15 stations and a length of 12 kilometers, opened in August 1987. The currently existing DLR network consists of four legs radiating from Poplarwhere the head office, control center and engineering facilities are located. Automatically controlled trains, in distinctive blue, white and red livery, run at frequent intervals. The DLR serves parts of the East End of London and London Docklands north of the River Thames. Exhibit 3 shows a DLR train and station platform.

Exhibit 3 Docklands Light Railway System in London, England



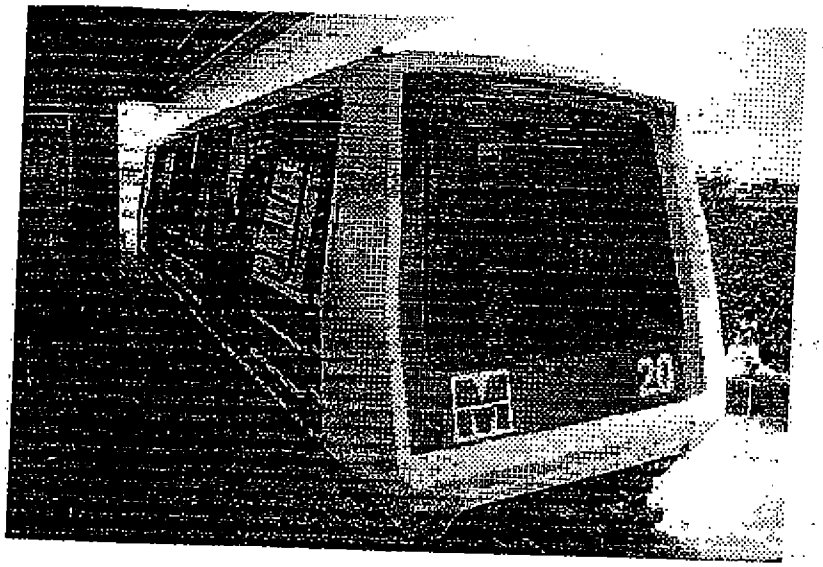
The Railway is operated by Docklands Light Railway Limited: Until March 1992 a wholly-owned subsidiary of London Regional Transport, and now part of the London Docklands Development Corporation. A typical DLR train has a capacity of 284 passengers. The minimum designed headway is two minutes. The current service headway is 10 minutes.

The Metromover in Miami, U.S.A.

As part of the Metropolitan Dade County Transportation Improvement Program, the Metromover was built to provide a means for downtown circulation and serve as a downtown feeder for Metrorail, the heavy rail system (Goldberg and Potter 1985). Construction began in June 1983, and the system opened in May 1986 as the first APM in a downtown setting, with 1.9 miles of double track and 10 stations. The total system cost in 1986 dollars is $159 million, or $83.2 million per mile.

In May 1994, a new extension of the Metromover was opened. The extension adds additional 12stations and 2.5 miles of track to the existing system. The extension is mostly double track and is divided into two legs. The Brickell leg is to the south and consists of six stations and 1.1 miles. The other leg, known as the Omni leg, has its own six stations and 1.4 miles of track. The entire system now consists of 4.4 miles of track and 22 stations and connect to the rapid rail at two locations. The extension costs a total of $228 million (or 91.2 million per mile), 35% of which pays for the guideway and station construction and another 27% is for the vehicles, controls and designs to AEG Westinghouse. Since the opening of the extension in May, daily ridership has increased to 12,500, close to the predicted 13,000. Exhibit 4 shows the Miami Metromover system.

Exhibit 4 Miami Metromover at a Station



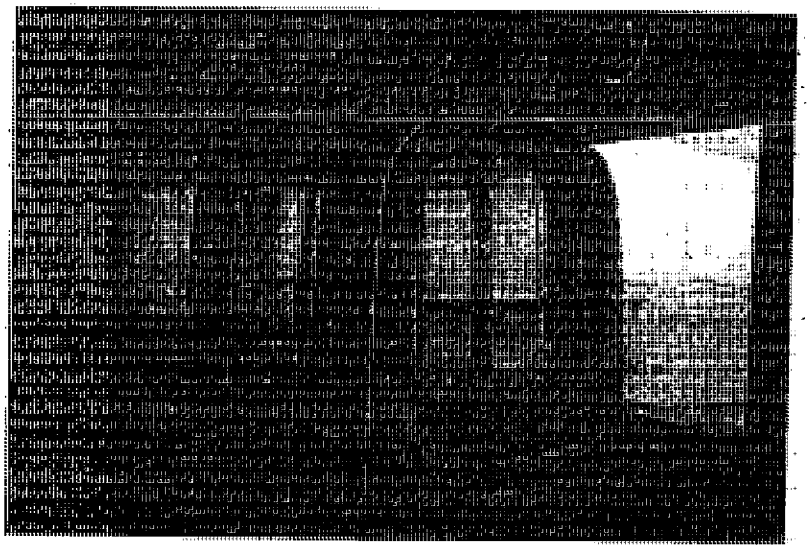
AIRPORT AUTOMATED PEOPLE MOVERS

SK System in CDG International Airport, France

The SK system in Paris Charles De Gaulle (CDG) International Airport, France, consists of Lines 1 and 2, which will be opened for service in 1996 and 1997, respectively. Line 1 has a length of 3,500 m and five stations while Line 2 has a length of 800 m and three stations. The hourly capacity per direction will be 2,900 persons in the initial stage and 5,000 persons in the final stage. Minimum headway will be 36 seconds in the initial stage and 21 seconds in the final stage. Exhibit 5 shows the SK train in CDG airport.

SK systems are comprised of a series of cars (a maximum of 30 passengers per car) is pulled by a cable which continuously circulates at a top speed of 20 mph. The minimum headway between eachcar is 17 seconds. The cars remain in continuous movement. Upon entering stations, the cars detach from the main circulating drive cable, but do not come to a complete stop. They continue to move along the boarding platform at a very low speed (less than one foot per second, or three times slower than the circulating speed of a moving sidewalk) for passenger boarding and exiting. Turntables located at each terminus allow cars to change track and direction in a very limited space. According to experts, the SK system is a suitable passenger transportation system for distances ranging from one thousand feet (305 m) to three miles (4827 m) (SK 1994).

Exhibit 5 Sk System in CDG International Airport, Paris



APM System In New Denver International Airport, U.S.A.

The $5 billion new Denver International Airport (DIA) was opened in February 1995. The 34,000 acre, five runways, 94 gates, 13,000 parking spaces airport is projected to handle 34 million passengers in its opening year and will have the capacity to serve up to 110 million passengers and 1.2 million aircraft operations annually by 2020. As the first major airport built in the U.S. in more than 20 years, DIA represents the state-of-the-art in airport design. From the automated underground train between the terminal and concourses, to the 5,300 mile web of fiber-optics communication system that covers the whole airport, to the most advanced air traffic control system in the world, every piece of this airport was designed to make passenger's journey as convenient and efficient as possible.

The nerve center for the entire airport is a 6,200 feet tunnel that contains the automated transitsystem and the baggage handling system. The transit system, provided by AEG Transportation Systems, includes 16 C-100 vehicles, automatic train control and a power distribution system. The APM system has the capacity to transport 12,000 passengers an hour between the airport's main landside terminal and its three airside concourses. Exhibit 6 shows the platform and screen door of the APM system.

Exhibit 6 Platform and Screen Door for APM System in DIA, Denver

The Airport Monorail System In Newark International Airport, New Jersey, U.S.A.

The estimated $350 million 1.9 miles Monorail system in Newark International Airport is expected to reduce vehicular traffic significantly in the Central Terminal Area by eliminating the numerous on-airport car rental, inter-terminal and parking lot bus operations on the circulating roadways and terminal frontages. The system will provide fast, convenient transportation among the airport's three terminals Parking Lots D and E, and car rental facilities.

The monorail system will consist of fully automated, computer-controlled trains operating on a 1.9 miles long, dual-lane, bi-directional guideway. Passengers will access the system from any one of seven stations: three in Parking Lot D; on each in Terminals A, B and C; and one in Parking Lot E. Fully accessible to all riders including those with restricted mobility. The system will have a capacity of 2,600 passengers per hour between any two stations in each direction, with a waitingtime at any station of less than two minutes during peak periods. 24-hour operations a day, 365 days a year will be implemented after this automated monorail system is completed in October 1995.

he Newark International Airport monorail system is provided by AEG Monorail Systems, Inc. (AMS) including the design and construction of the guideway; fabrication of all vehicles; design and installation of the train controls; communication, propulsion and power distribution systems; and all equipment with the maintenance and control facility. The total fleet for this system will be 12 trains, each train consisting of 6 cars initially or 7 cars ultimately. Accordingly, the passenger capacity of a train will be 78 persons initially and 90 persons ultimately.

SYSTEM CHARACTERISTICS

System characteristics of the four urban transit and three airport circulation APM systems are summarized in Table 2.

CAPITAL COSTS

The capital cost data for each system, as shown in Table 3, was converted to 1994 U.S. dollars with adjustments for time and currency conversion. It should be noted that the capital costs of the airport APM systems do not include the land costs, which may be 5 ~ 10% or more of the total capital cost Additionally, it should be mentioned that airport APM systems have smaller vehicles and lighter guideway.

In order to have a understanding of APM costs compared with those of rapid rail and light rail transit systems, the Washington, D.C., Atlanta, Baltimore and Miami RRT systems are selected based on availability of cost data while the LRT systems in Buffalo, Pittsburgh, Portland and Sacramento are selected to represent LRT systems. Table 4 gives the capital cost ranges and averages of RRT, LRT and urban APM systems. The idea that APMs are expensive may be somewhat of a misperception. The capital costs for APM systems fall between those of LRT and RRT systems. This is very logical

Table 2. System Characteristics of Automated People Movers

System		Lille Val	Vancouver	London DLR	Miami	Paris CDG	Denver Airport APM	Newark Airport APM
Supplier		MARTA	UTDA	GEC/Mowle	AEG	Soule	AEG	AEG
Start Up		1983	1986	1987	1986	1996	1995	1995
Technology		rubber tire, third rail	steel wheel, third rail, LIM	steel wheel, third rail	rubber tire, third rail	steel wheel, cable-drawn	steel wheel, third rail	monorail
Guideway Length	Total	25.3 km (15.7 mi)	28.8 km (17.9 mi)	27.0 km (16.7 mi)	7.1 km (4.4 mi)	4.3 km (2.7 mi)	2.9 km (1.8 mi)	3.1 km (1.9 mi)
	Underground	68%	4%	12%	0%	0%	100%	0%
	Elevated	26%	86%	83%	100%	100%	0%	100%
	At-Grade	6%	10%	5%	0%	0%	0%	0%
No. Stations	Total	36	20	35	21	8	7	7
	Avg. Spacing	0.7 km (0.4 mi)	1.4 km (0.9 mi)	0.7 km	0.3 km	0.5 km	0.4 km	0.4 km
Fleet Size		83 two-car sets	130	80	29	79	16	12
Maximum Speed		80 km/h (50 mph)	90 km/h (56 mph)	80 km/h (50 mph)		36 km/h (line speed)		43.4 km/h (27 mph)
Minimum Headway		60 sec	90 sec	120 sec	60 sec	21 sec	60 sec	60 sec
Train Consists		2, 4 cars	2, 4, 6 cars	2	1, 2 cars	1	2	6, 7 cars
Car normal capacity (psn)		72 (34 seats)	75 (40 seats)	210 (84	100	29	100	13
Car Crash Capacity (psn)		100	100	260	155	29	100	13
Line Capacity (pphpd)		24,000	25,000	15,600	12,000	5,000	12,000	5,400

and reasonable as APM systems, generally speaking, have better levels of service than LRT systems while the capacity of an APM system, even as a trunk line service, is less than that of a RRT system. The average capital cost for airport APMs are less than that of LRT systems.

Table 3. Capital Costs of Line-Haul APM Systems and RRT and LRT Systems (Millions)

System	Year built	Cost in year built	Cost in 1994 US dollars	Route Length (km)	No. stations	Car/Train Capacity (persons)	Per km cost in 1994 US dollars
Lille VAL	1983: phase 1 1984: phase 1b 1989: line 2	'87US$650[1] '87US$567[1]	$1,664	25.3	36	100/400	$65.8
Vancouver SkyTrain	1986: phase 1 1990: ext. 1 1994: ext. 2	US$615[2] US$145[2] Can$127[2]	$1,133	28.8	20	100/600	$39.4
London DLR	1987: phase 1 1991: ext. 1992: ext. 1993: ext.	'87œ77[3] '91œ278 '92œ248 '93œ46	$1,152	27.0	35	260/260	$42.7
Miami Metromover	1986 1994: ext.	US$159 US$228	$492	7.1	21	100/200	$69.3
Paris CDG Airport APM	1996	$100[4]	$100	4.3	8	29/29	$23.2
Denver Airport APM	1995	$149[5]	$149	2.9	7	100/100	$51.4
Newark Airport APM	1995	$350[6]	$350	3.1	7	13/80	$112.9

Note: [1] Source: EcoPlan STS - Lille Case Study Report, 19990 (EcoPlan 1990b)

October 12, 2000

According to the Oahu Regional Transportation Plan, Preliminary Model Run Statistics, Daily Vehicle Delay (000s of hours) comparing year 2000 to year 2025 traffic congestion on all streets and highways will he severe. That's just another reason why I strongly feel a grade separated option for public transit similar to the existing and expanding Vancouver Skytrain system in Vancouver, Canada.

Because it runs on its own tracks, separated from roads, Skytrain eliminates conflicts that are frequent on the road system. And for that reason, its almost always on time. The engines on Skytrain, the linear induction motors, have no moving parts and rarely need maintenance, making the system one of the most reliable options in the world.

Skytrain uses only one kilowatt-hour of electricity per 5.9 passenger miles – about the same amount of power it takes to run a color television for three hours, and far less than other rapid transit systems.

It's quieter than most vehicles. Skytrain's noise emissions are comparable to those of an electric trolley bus. Skytrain produces no air pollution. Skytrain fully automatic cars do not have drivers and can run frequently as one-and-a-half minutes apart.

A current and now ongoing addition to Vancouver's Skytrain system, approximately 13 miles, more or less, with 12 stations, is costing 1.17 billion dollars (Canadian dollars) or about $790 million (U.S. dollars). Construction began in September 1999 and on October 5, 2000, it was announced that construction had reached the 50% point. Also the $790 million (U.S. dollars) includes construction of an 800 meter twin tunnel (2600 feet long) a problem which Honolulu will not have.

Construction should continue until early 2001. For efficiency construction is conducted in several areas at the same time. While building the elevated guideway, SAR Transit, general contractor, will use innovative techniques to reduce costs and neighborhood disruption.

For site preparation, this initial stage of construction involves clearing areas that are slated for construction and relocating any utilities that will obstruct construction. Utilities requiring relocation include gas and telecommunications lines and sewage and water pipelines. In most cases they will be returned to their original locations when construction is complete. Equipment that are necessary include trucks, loaders, chippers, augers, backhoes and graders.

Good lighting and open spaces were the most frequently raised requests among community station design initiatives. Each transit station will be architect designed to enhance or fit the character of the neighborhood or zoning.

Bombardier Transportation, the general contractor, builds the new Skytrain which involves several key areas: utility relocation, construction preparation, guideway construction, station construction and the installation of rails and guideway systems. These steps will not necessarily occur in chronological order; some my take place simultaneously.

Following the completion of the construction elements, residents will experience only minimal

disturbances. This is because much of the subsequent work will take place on top of the guideways, at the stations or from the system control center and other remote sites.

With the new Skytain line comes a new industry for British Columbia. Fifty of the 60 Skytrain cars ordered for the new line will be manufactured in Burnaby, British Columbia, in Bombardier Transportation new Centre for Advanced Systems. The new centre will also market Skytain technology worldwide, with special emphasis nn meeting Asia's growing urban transit needs. Bombardier Transportation principal operations are based in Quebec, Canada.

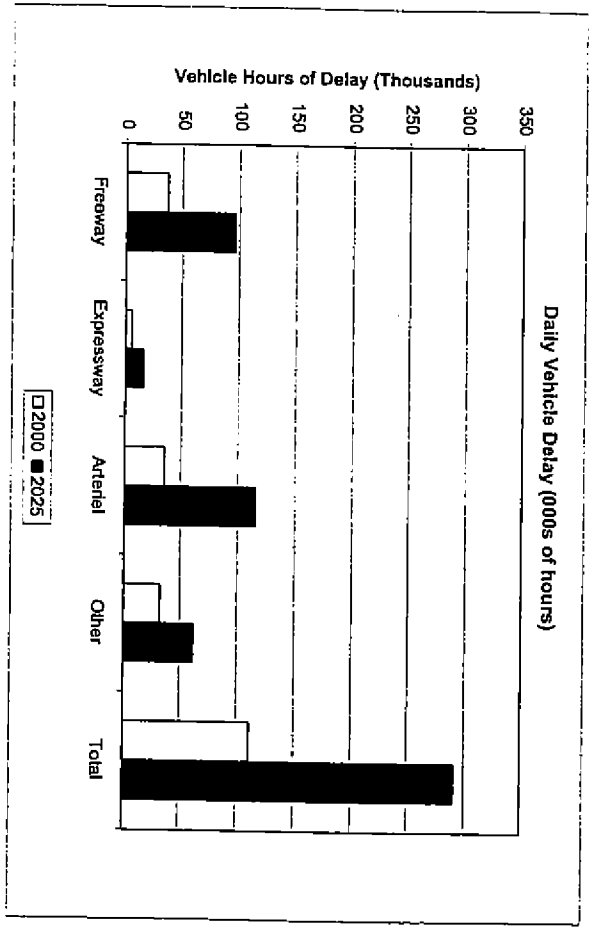
Employment for Bombardier's new Centre for Advanced Transit Systems will create more than 900 permanent, direct and indirect jobs, and generate more that $115 million (Canadian dollars) in wages, salaries and benefits by 2003. In addition, about 2,700 jobs will be created during construction of the new Skytrain line.

Everyone will have a reason to get on board the new Skytrain line – What about the City & County of Honolulu?

Mahalo!

Wendell Lum
(co-chair, Planning Committee, Kancohe Neighborhood Board No. 30)

Oahu Regional Transportation Plan
Preliminary Model Run Statistics

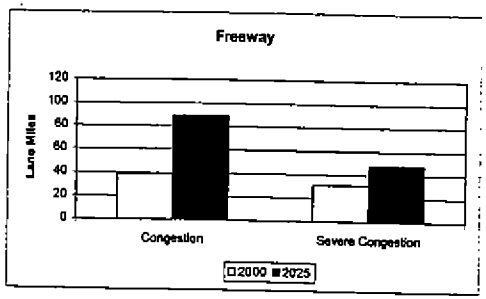


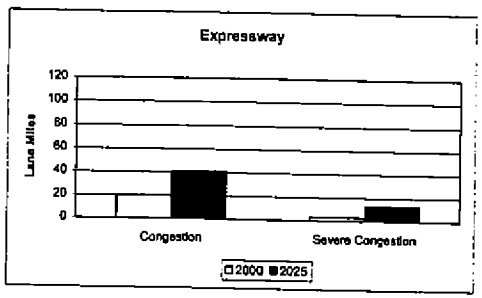
Note: Delay based on difference between freeflow and congested speeds.

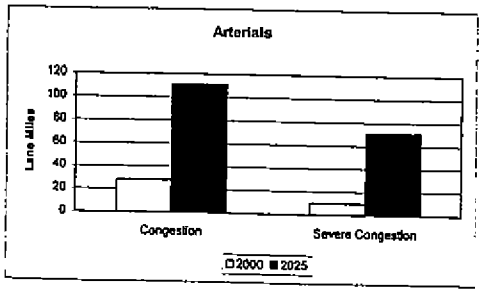
09/12/2000

Oahu Regional Transportation Plan
Preliminary Model Run Statistics

Congested Lane Miles in the AM Period

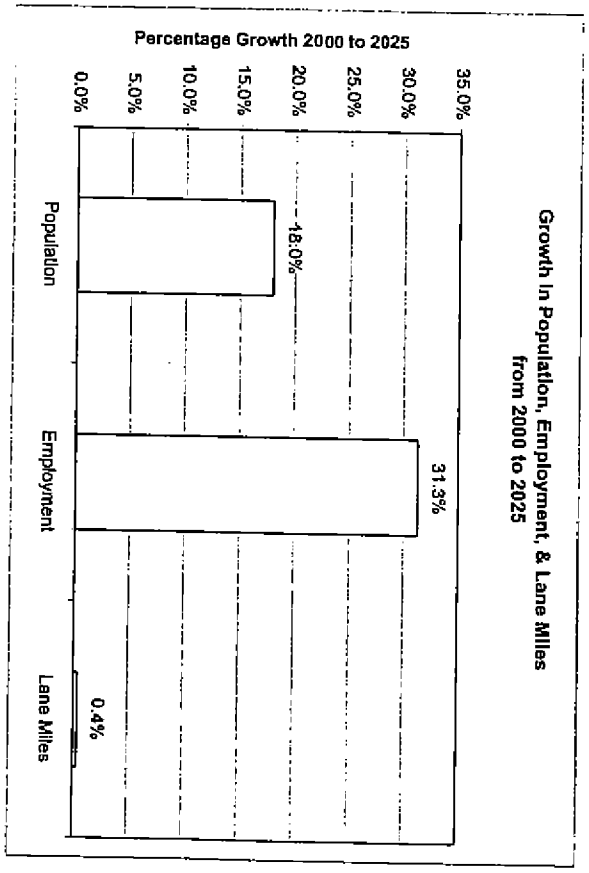






Note:
Congestion based on V/C ratios. 0.8 < V/C < 1.0 for Congestion; V/C > 1.0 for Severe Congestion

Oahu Regional Transportation Plan
Preliminary Model Run Statistics



AR00015905

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MAY 1 2002

Possible Blunder for Primary Corridor Transportation Project

Another faster and much more comfortable mass transit alternative for the In-Town portion of the Primary Corridor Transportation Project for a grade-separated light rail system was left out with a poor explanation in the MIS/Draft EIS. Compare the 1992 proposal of a 15.9 mile grade separated rail system which was projected to cost over a $1 billion U.S. dollars and the current the In-Town BRT of about 12 miles will cost maybe around $400 million.

The latest grade-separated technology now has a less intrusive elevated guide way. An example is the Vancouver Skytrain in Vancouver, British Columbia. An addition of 12.6 mile that is projected for completion after less than three (3) years on September 2002 and announced it will be completed with a surplus on April 16, 2002. The In-Town BRT portion costs are hypothethical yet and definitely more with a suggested long term plan and newer technology in the future.

The Millennium Line includes construction of 13 architect designed glass enclosed transit stations with elevators/escalators, a twin 2500 feet tunnel which Honolulu does not require and twenty (20) pairs of next generation MK II Skytrain cars (260 passengers a pair) at a cost of below $762.5 million U.S. dollars. Guide way construction began in 1999 with MK II cars produced in Burnaby, B.C.

The MIS/Draft EIS of August 2000 (pg. 2-42) states than an 11.8 mile elevated rapid transit system along the presently proposed In-Town BRT alignment would cost on the order of $1.6 billion in 1998 dollars and by comparison, the In-Town BRT system costs are estimated at around $375 million in 1998 dollars but which since has been increased with the Supplemental Draft EIS of March 2002.

A shorter grade-separated light rail system from the proposed Middle Street Transit Station to the University of Hawaii without a Waikiki corridor can make it affordable and expandable in the future. Private local transportation companies can utilize the Hub and Spoke concept off Transit Station(s) to do Waikiki also.

Mahalo,

Wendell Lum

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Councilperson John DeSoto, Honolulu City Council
Councilperson John Henry Felix, Honolulu City Council
Office of Environmental Quality Control, Department of Health
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San Francisco, California 94105-1839

Dear Ms. Turchie:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Enclosed you will find my additional comments to responses I received from a letter received with the Department of Transportation Services responses to my comments of the Supplemental Draft Environmental Impact Statement (SDEIS) dated March 8, 2002 from Ms. Cheryl D. Soon, Director, Department of Transportation Services, City and County of Honolulu.

Mahalo,

Wendell Lum
(member Kaneohe Neighborhood Board No. 30)

cc: Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
Office of Environmental Quality Control
Department of Health
State of Hawaii

Comments	Response	Additional Comments to Responses
After Rounds 1 and 2 of the Oahu Trans 2K meeting, public and agency input was combined with technical analysis to define an initial set of alternatives. Only No-Build, Enhanced Bus/Transportation System Management (TSM), Bus Rapid Transit (BRT), and Light Rail Transit (LRT) were considered. A cost-effective shorter grade-separated light rail alternative most over existing street rights-of-way was not included to be an alternative for the In-Town portion. As the chosen Locally Preferred Alternative (LPA) the last time and within the last ten years it should have been again rationally included, for comparison, once and for all to see and comment on.	A fully grade-separated transit system was considered and rejected since it was determined that the public was not in favor of an elevated transit system because of its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.	From Rounds 1 and 2 of Oahu Trans 2K public meetings there were displays/models/slides of the Bus Rapid Transit Proposal, No-Build, Enhanced Bus/Transportation System Management (TSM), and Light Rail Transit (LRT) but nothing of a grade-separated transit system not even the model produced from the older previous defunct 1992 15.9 mile proposal which was the overwhelming locally preferred alternative (LPA) then but down voted by a single vote by the then Honolulu City Council.
The process should ensure that critical community concerns and technical issues are identified early in the study and addressed in the engineering, environmental, economic, and financial analyses...	The Primary Corridor Transportation Project is following the requirements of the National Environmental Policy Act (NEPA) and Chapter 343 of the Hawaii Revised Statutes (HRS), as amended. The purpose of the NEPA and HRS processes is to ensure that accurate environmental studies are performed, that they are done with public involvement, and that public officials make decisions based on an understanding of environmental consequences. For the past two years the City and County of Honolulu (City) has conducted the 21st Century Oahu visioning process including its transportation component, Oahu Trans 2K. It has been the most extensive community-based transportation planning effort in the City's history and it is the principal public outreach medium for the Primary Corridor Transportation Project. During the DEIS process, in addition to the required scoping meetings, meetings with over 100 governmental agencies, elected officials, businesses, and business, community, and civic organizations to present the elements of the Draft MIS/DEIS Plan and gather information and comments.	Critical community concern which was not explained in detail from the onset and other public meetings and also in the MIS/DEIS of Primary Corridor Transportation Project of August 2000 is the impact of what the loss of one and in many cases two lanes of auto traffic lanes and in many cases only a single lane of auto traffic each way on existing major street rights-of-ways. An inventory of the participants in public meetings held by the City's Department of Transportation Services will show much less than 1% of the population of Honolulu's residents were participants. A significant amount of persons who were in attendance were operators, like myself, and from the City and County of Honolulu's Neighborhood Board System and participants in the Mayor's Vision teams throughout the City and County of Honolulu. Many other local meetings had poor attendance as public records will show.

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	project. A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system because of its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.	of the Trans 2K public meetings. It may be a blunder of the the decade by the current Honolulu City Council and the Department of Transportation Services. The public was never given a chance either by vote or before the Trans 2K meeting began. It was determined before that.
According to the U.S. Department of Transportation website: http://www.fta.dot.gov/research/pdf/ilbrt.pdf there are problems of arterial bus priority treatments (Bus Rapid Transit).	Although there are obstacles to successful implementation of a BRT system, it can provide a flexible and cost-effective method of public transportation. When properly developed in conjunction with land use policies and development plans, the BRT system can provide fast, reliable, and convenient transit service to cities and suburbs. It can also lead to compact, pedestrian-oriented, and environmentally sensitive development that preserves neighborhoods and open space.	The obstacles are many as all at-grade transit alternatives encounter. The In-Town BRT is a short-term help but quickly will add to the traffic gridlock as it takes away lanes of auto traffic. The speed as suggested and shown on video by the City's consultants are hypothetical and shown overlaid on motion pictures without any or real automobile traffic.
Providing high quality service within the downtown sections of metropolitan areas like Honolulu which is the key to the Bus Rapid Transit concept has not been the subject of a comparable effort in the rest of the U.S.	The BRT is based on the most ubiquitous technology around the world - the bus. It has been continually improved and updated with BRT being the most recent application of this proven technology. The key BRT features being proposed in Honolulu have been tested and proven in cities throughout the world including Curitiba and Sao Paolo, Brazil; Brisbane and Adelaide, Australia; Auckland, New Zealand; Vancouver and Ottawa, Canada; Dublin Ireland; Nagoya, Japan; New York City, Los Angeles, Pittsburgh, and Orlando in the U.S.	The variations possible of BRT technology is not well defined for applications that will vary from city to city. But Vancouver, British Columbia in the west coast of Canada has a form of BRT technology but is used only to complement the existing Grade-Separated Elevated Vancouver Skytrain System and not by itself as Honolulu's proposal. Vancouver is enjoying success with its transportation system.
The most basic obstacle to creating bus lanes in Honolulu is the lack of adequate cross section to separate buses from general purpose traffic.	The BRT Alternative is comprised of a mix of exclusive BRT, semi-exclusive BRT and mixed-use lanes. The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly affected, exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes, exclusive transit lanes were retained such as on Dillingham and through Downtown.	This mix of exclusive, semi-exclusive BRT and mixed-use lanes are each a part of the problem of a BRT system. Where are these cars who use the above lanes go? We have many close-by crossing streets which cars today use and there will be more cars in the future and the next generation. There are traffic lights at practically every intersection and high pedestrian traffic in Downtown. It would help with wide street rights-of-ways.

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	Over 70 presentations were made at community-sponsored meetings that were held prior to issuance of the MIS/DEIS. The formal public hearing was held on October 12, 2000. The City Council Transportation Committee has been continuously briefed on the project status since inception. In anticipation of the LPA decision, the City Council Transportation Committee conducted a series of public hearings out in the districts throughout the primary transportation corridor after the MIS/DEIS was distributed. After the LPA was selected, the City Council asked the DTS to continue public dialogue on the project. Community working groups were formed to provide a forum for open dialogue between project sponsors and neighborhood, civic, business and other organizations so that environmental and transportation issues and refinements to project proposals could be discussed. Five working groups were formed and several meetings held with each group regarding the project. As a result of the working groups, the SDEIS has resulted to address the project refinements resulting from the working groups' efforts. In addition to the working groups, the project team members have been meeting with numerous individuals, agencies, and organizations. Over 100 meetings have been conducted since January 2001.	The City Council's Transportation Committee Chair was also the chair of the Oahu Metropolitan Planning Organization (OMPO) which is the lead government agency for projects needing federal funding and whose Policy Committee lacked actual and real public participation as public records will show. He was a strong supporter of the In-Town BRT alternative only. The City Council's Transportation Committee Chair was also the chair of the Oahu Metropolitan Planning Organization (OMPO) which is the lead government agency for projects needing federal funding and whose Policy Committee lacked actual and real public participation as public records will show. He was a strong supporter of the In-Town BRT alternative only. The five (5) working groups selected mostly included individuals who were not familiar with other alternative mass transit systems available but were supporters of the In-Town BRT. They consisted of about 15 individuals, more or less, and their meetings were not advertised for volunteers and I never heard about them until their results were published in OahuTrans 2K reports or in small articles in daily newspapers.
Was it a done deal to guide the process from the beginning by the City's Department of Transportation and its hired consultants to put the Bus Rapid Transit (BRT) as a preferred final choice somehow by eliminating a superior grade-separated light rail alternative?	It is a federal requirement that all alternatives be treated in a balanced manner and the DEIS has been reviewed to ensure that this "balanced treatment" requirement is met. Even at this point in the process, there is no foregone conclusion that the BRT Alternative would be implemented. Until there is a completed Record of Decision (ROD), the preferred alternative is not for certain. After the ROD is issued, construction funding will be procured to implement the	I firmly believe the City's Department of Transportation Services did not ensure that this "balanced treatment" was given to meet the federal treatment requirement that all alternatives were treated in a balanced manner. As it was the Locally Preferred Alternative in 1992 somehow someone made the determination to remove the grade-separated elevated alternative before Round 1

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portion of the corridor.	signal will activate an extension of the green indication for that cycle only. BRT vehicles stopped at a red signal will move concurrently with the through traffic in the same direction, unless the BRT vehicle must turn or change lanes, in which case it will be given a green signal in advance of the general purpose traffic lanes. All traffic signal extensions and advance indications will be timed in the field during actual operation to minimize effects on general traffic flow.	Effects on general purpose and pedestrian traffic is key to avoiding traffic and pedestrian backups which will happen with all the things going on at practically all street intersections in Downtown during peak times and where traffic volume has been made worst with lost or limited auto traffic lanes. With car, resident and tourist population always on the increase situations will only get worse in the future.
Because of the use of narrow platforms because of very narrow street rights-of-way the so-called transit stations will not eliminate the need to restrict boarding to the front door of the bus which takes additional time.	The transit stops will be designed to efficiently handle the expected volume of passengers.	Not much can be done to speed loading and unloading at BRT transit stations which will create delays in transit times as space is limited. Vancouver's Skytrain permits entry and exits through three (3) doors efficiently.
System integration becomes an issue when the need to provide transfers between routes and other forms of public transportation where passengers pay fares at these transfer points with on board payment.	The BRT system will be seamlessly integrated into the hub-and-spoke bus network by implementing well-planned stops, efficient dwell times and a stream-lined fare collection and transfer system to provide convenient and cost-effective service for potential users.	Not much of a problem with the hub-and-spoke bus in outlying areas but integration at BRT transit stations will be with limited space at proposed transit stations and single entry/exit to BRT vehicle.
The DEIS does not give details on the impact with the loss of one and in most cases two lanes of multi-purpose traffic lanes within the proposed corridor.	See Chapter 4 of the MIS/DEIS for the discussion of traffic related impacts.	No quantitative numbers are given in Chapter 4 of MIS/DEIS for discussion on numbers of cars displaced only that there will be more transit riders. BRT has many limitations.
Giving priority to the proposed BRT will cause additional delays at cross streets and pedestrian cross-walks creating additional traffic congestion at these locations.	Traffic signals will not be pre-empted by the BRT. At certain intersections, BRT vehicles approaching a green signal will activate an extension of the green indication for that cycle only. BRT vehicles stopped at a red signal will move concurrently with the through traffic in the same direction, unless the BRT vehicle must turn or change lanes, in which case it will be given a green signal in advance of the general purpose traffic lanes. All traffic signal extensions and advance indications will be timed in the field during actual operation to minimize effects on general traffic flow.	The addition of an In-Town BRT to existing auto traffic including right/left turn-lanes and pedestrian traffic only adds to complexity of another use at each and every intersection. This is another reason of unreliable/slow transit times further delayed by potential accidents, underground infrastructure problems and many others than a system with its own guide way. Comparing cost with Vancouver's Millennium Line addition coupled with strong U.S. dollar and weaker Canadian dollars is worth a look.
A grade-separated light rail system would do the most to improve the capacity of the transportation system to carry people through Honolulu as the population thrives through 2025.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is	Public did support the proposed system as it was proposed in 1992. It was the Honolulu City Council who down-voted it. Today the grade-separated technology is very different

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The need to allow general purpose traffic to use a bus lane for turning interferes with bus operations, increasing travel times and adding to problems of enforcing the restriction of the lane to buses under all other circumstances.	The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly impacted exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes, exclusive transit lanes were retained such as on Kapiolani and through Downtown. The BRT lanes will be clearly delineated and signed. Since large, specially marked BRT vehicles will be utilizing these lanes it will be obvious which vehicles are violators and therefore it will not take much law enforcement manpower to monitor and enforce the lane designation. There will be an enforcement mechanism developed to discourage private vehicles from entering BRT-exclusive lanes. These enforcement mechanisms may be in the form of a fine for entering a BRT-exclusive lane, similar to the fines imposed on the existing HOV lanes.	This mix of exclusive, semi-exclusive BRT and mixed-use lanes are each a part of the problem of a BRT system. It would help but we don't have the luxury of wide street rights-of-ways. I see constant changes to try to balance a workable In-Town BRT with new problems with fewer auto traffic lanes, pedestrian crosswalks, left-turn lanes, traffic back-ups and some traffic grid-lock along with many disgruntled drivers as well as unhappy BRT and bus riders. Especially the ones who have to transfer to the In-Town BRT segment who find out it actually is slower than what was said by the City and its consultants. The In-Town transit stations are far from being comfortable without conveniences and limited in space/seating as I see in the plans because of our narrow street rights-of-ways.
Curbside parking by emergency, delivery, and service vehicles also obstructs bus movements and is particularly disruptive if the bus lane is restricted to a single lane width.	The two technologies under consideration, the Embedded Plate System and the Hybrid Propulsion System both provide the flexibility to operate outside of the designated BRT lanes. Therefore, the BRT vehicles would bypass the vehicle that is parked along the curve by maneuvering around the vehicle.	However the changing of vehicles from diesel powered to another technology being suggested will add to the cost of the system. Bus transit is not as smooth and comfortable as a rail system which is much quicker being always on time at each and every transit station. Accidents will occur as any at-grade transportation system has shown.
A drawback of median bus lanes is that passengers must walk across general purpose traffic lanes to reach the bus stop.	The conceptual design of transit stops located in the median includes features such as railings to discourage transit patrons from exiting the platform except at designated locations. Traffic signals and crosswalks will be provided at BRT stations to allow pedestrians to safely cross the street.	Potential for accidents to happen is still there. Today cross walk signals are ignored by many with lots of jaywalking and running. There is liability with all at-grade traffic situations that possibly will happen sooner or later.
The constraints imposed by traffic signal progression will limit effective application of signal preemption along the In-Town	Traffic signals will utilize prioritization for BRT vehicles not pre-emption. At certain intersections, BRT vehicles approaching a green	Potential for accidents to happen is still there. Today cross walk signals are ignored by many with lots of jaywalking and running.

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deterioration of transit travel times.		
Maintenance and construction projects under our streets within the proposed BRT corridor has potential of nearly shutting down the system sometime in the future if implemented.	The provisions to accommodate maintenance and construction projects within the BRT corridor will be similar to how construction projects within a lane are handled currently – the traffic will be detoured around the construction/maintenance area. The two technologies under consideration the Embedded Plate System, and the Hybrid Propulsion System both provide the flexibility to operate outside of the designated BRT lanes.	A grade-separated elevated light rail system does not ever have to contend with disruption of service with its own guideway. Some of the other technologies suggested are not available today and would add to the cost of the In-Town BRT. BRT detours may be possible if distance is not beyond the limits of the suggested vehicle (s).
Under the Bus Rapid Transit (BRT) alternative because there has been lack of the subject of comparable effort in North America this newer transit alternative application for success is not really known except in Curitiba, Brazil which is very different being under the control of a dictatorship.	The BRT is based on the most ubiquitous technology around the world, -the bus. It has been continually improved and updated with BRT being the most recent application of this proven technology. The key BRT features being proposed in Honolulu have been tested and proven in cities throughout the world including Curitiba and Sao Paolo, Brazil; Brisbane and Adelaide, Australia; Auckland, New Zealand; Vancouver and Ottawa, Canada; Dublin Ireland; Nagoya, Japan; New York City, Los Angeles, Pittsburgh, and Orlando in the U.S.	The bus has improved to current BRT technology but application is done differently in cities that have used it. An example is that BRT technology is also to add or supplement existing transit systems already in place. An example is the one in Vancouver, British Columbia which is used to bring transit riders from outlying areas around the city of Vancouver to use the fast and very comfortable Skytrain. Rouen and Lyon, France use BRT similarly.
Narrow bus stops and limited availability of park and ride facilities are not better able to handle surges in ridership due to possible changes in land use policies in central Oahu, special events and sporting events easily.	The design of the BRT system and transit stops will be able to accommodate peaks in ridership due to special events. For example, to accommodate transit patrons attending a UH football game at Aloha Stadium, the City would coordinate with the Stadium Authority prior to the event to identify alternative parking sites where fans could park and utilize the BRT to attend the game. The current land use plans for Central Oahu and resulting increase in transit ridership was taken into account in the planning of the BRT project.	Narrow transit stops shown in preliminary cross sections of transit stops are what they are bus stops. Many are shown to be 8 feet in width, but probably less, with no human amenities and conveniences like Skytrain's with elevators and escalators to get you there to the platform with even a place for light snacks, a book to read or to make a phone call.
More transfers would be needed for both the In-town BRT and a grade-separated light rail system due to the proposed hub-and spoke-bus network	The BRT system will be seamlessly integrated into the hub-and-spoke bus network by implementing well-planned stops, efficient dwell times and a stream-lined fare collection and transfer system to provide convenient and cost-effective service for potential users.	With the In-Town BRT alternative or even with a grade-separated elevated light rail alternative there is no other way. The hub-and-spoke concept helps to efficiently bring in transit riders from communities outside Downtown.
Today's grade-separated light rail vehicles have noise emissions comparable to those of an electric trolley bus.	There are still many noise factors to be considered associated when designing a rail system. Steel wheels on steel rails require	Vancouver's Skytrain vehicles are exceptionally quiet. An argument by the City's Department of Transportation show lack of

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	discussed in Chapter 2.6.1 of the MIS/DEIS.	using new techniques to install guide way members during construction phase.
Because of its exclusive guideway would increase the mode share of transit more than any other alternative travel time savings for transit patrons, providing most reliable service that would be buffered from traffic delays, improving in-town mobility and strengthening the connections throughout the island of Oahu.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.	Public did support the proposed system in 1992 and chosen as the Locally Preferred Alternative (LPA) as shown in the DEIS in pages on Comments and Responses. A visit to Vancouver to discuss costs is suggested to makes real comparison for the best In-Town system once and for all.
The nature of the exclusive right-of-way for the grade-separated light rail would provide significantly faster travel times within Honolulu.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.	Public did support the proposed system in 1992 and chosen as the Locally Preferred Alternative (LPA). The grade-separated technology is different from 1992 and from costs of the Millennium Line much more affordable with weaker Canadian dollar.
The constant at-grade situations of pedestrians, automobile traffic, traffic lights, emergency vehicles, construction and repairs of underground utilities below the exclusive lanes of the BRT, traffic accidents, long stops because of passenger loading limitations, exceptional narrow bus stops, and more time between vehicles don't help the situation.	The BRT system is an at-grade system and as such does interface with other features at that level. However, the two candidate technologies, the Embedded Plate System and the Hybrid Propulsion System, both provide the flexibility to operate outside of the designated BRT lanes and therefore can easily maneuver around construction areas, emergency vehicles, and traffic.	Every type of an at-grade transit system requires a driver (s) up front as the In-Town BRT needs. Vancouver's Skytrain does not need a driver. Security has been upgraded with the Millennium Line to include glass-enclosed transit stations as the public have asked during comment period on the addition.
Additionally monitoring of both exclusive and shared lanes with the BRT will be a problem and more adjustments to satisfy problems with the communities nearby, currently going on, will cause additional mediation with a Bus Rapid Transit System to further deteriorate the word "rapid."	The BRT lanes will be clearly delineated and signed. Since large, specially marked BRT vehicles will be utilizing these lanes it will be obvious which vehicles are violators and therefore it will not take much law enforcement manpower to monitor and enforce the lane designation. There will be some enforcement mechanism developed to discourage private vehicles from entering BRT-exclusive lanes. These enforcement mechanisms may be in the form of a fine for entering a BRT-exclusive lane, similar to the fines imposed on the existing HOV lanes.	Enforcement of violations of exclusive lanes for the In-Town BRT is just another problem with this at-grade transit proposal. The mix of regular buses with the In-Town BRT and auto traffic among other things add to at-grade traffic situations that will occur every day.
Lack of sufficient cross-section of streets of the corridor creates very narrow bus stops which also prevent faster on-board loading of passengers with a single front entry for verification of fares paid providing further	The transit stops will be designed to efficiently handle the expected volume of passengers.	Lack of wide street rights-of-way in Downtown Honolulu is another negative for the In-Town BRT. Narrow and long transit stops mostly can only be built.

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	New York City, Los Angeles, Pittsburgh, and Orlando in the U.S. If you are referring to the "missing alternative" being the consideration of the a grade-separated light rail system, fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.	The missing alternative is a blunder and I feel the taking away of car lanes or mixing the BRT with cars will cause quicker traffic grid-lock. We love our cars and unless public transit is made much faster than the bus and with many human comforts and conveniences the In-Town BRT will not be successful as some politicians and advocates are suggesting.
A grade-separated light rail can be fast, convenient, reliable, and the right choice among all other alternatives.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.	On the onset from Round 1 of Trans 2k right away I noticed no grade-separated light rail alternative. I cannot see any at-grade vehicle both the In-Town BRT or the at-grade LRT as the best choice among the alternatives. A potential blunder could be happening here.
Building a grade-separated line for the In-Town portion will create many jobs and is a good investment in our city's future.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS. The BRT Alternative will generate jobs related to the operations of the BRT system such as transit drivers and operations and maintenance personnel. Along with transit needs, one of the other goals of the PCTP is to help shape growth in the corridor. The large, underdeveloped parcels along the alignment present opportunities for transit oriented development at these sites, which will result in the creation of jobs.	Both the In-Town BRT and an In-Town grade-separated light rail system will create many jobs. Both will provide growth in, along and around the corridors. However, costs with no need for transit drivers for an elevated system can be a yearly savings which brings down the actual cost of such a system over the long term. More technical and jobs related to the rail system as computers and electronics run the vehicles. Maintenance, as shown by Vancouver's Skytrain engines, having no moving parts rarely need any work making it one of the most reliable and quietest options in the world.
Because it runs on its own tracks, separated from roads this transit system eliminates conflicts that are frequent on the road system.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.	Again the public did have a say, as shown in the DEIS of the 1992, and the alternative chosen was a different and longer corridor of a grade-separated rail system which is different from the technology of today's Millennium Line in Vancouver, B.C.

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	mitigation for brake squeals, vehicle vibration, and electronic propulsion tones. The noise severity will be dependent on the speed of the vehicles, the weight of the vehicles, the type of suspension used in the vehicles, and the track foundation. The costs associated with mitigation can be substantial. The two candidate technologies, the Embedded Plate and Hybrid Propulsion Systems are quieter than the diesel buses currently used.	knowledge or any research done on current modern technology of the latest grade-separated light rail systems which do not require any additional costs to mitigate noise control of any kind as being suggested. Also the vehicles in Vancouver's grade-separated system do not use drivers and have a perfect safety record since inception in 1986.
Today's grade-separated light rail vehicles use far less power than other rapid transit systems and releases no harmful chemicals into our atmosphere.	Technologies proposed for the BRT Alternative include the embedded plate technology which consists of electric vehicles powered by a wayside traction power delivery system or hybrid propulsion system where energy for the traction power is carried on-board the vehicle. The Embedded Plate technology vehicles would emit zero pollutants. The hybrid electric vehicles would be low-emission vehicles because their diesel engines would always be operating at efficient levels. Since the BRT Alternative would utilize either zero or low-emission vehicles, it would substantially reduce the level of particulate emissions (black smoke and soot) at certain intersections and street level locations in comparison to the No-Build and TSM Alternatives, which would continue to use diesel buses.	Both technologies proposed for the In-Town BRT are not really available today. But Vancouver's Skytrain Millennium Line cost of $762.5 million includes costs of all new generation electric cars which are built in Burnaby, British Columbia on the west coast of Canada. Also no drivers are used as they are automatically driven and under control from a primary location. Substantial savings are derived without a driver(s) for each pair of vehicles.
Fully automated and driverless grade-separated light rail vehicles can run more frequently than any BRT vehicle peak and non-peak hours.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.	Public did support the proposed system in 1992 and chosen as the Locally Preferred Alternative (LPA). The City Council down-voted it by a single vote. I can't understand why the public didn't vote for the choices.
Because of lack of a comparable effort for a Bus Rapid Transit System on the mainland and even in Europe I see a missing alternative that should have been considered fairly for all taxpayers.	The key BRT features being proposed in Honolulu have been tested and proven in cities throughout the world including Curitiba and Sao Paolo, Brazil; Brisbane and Adelaide, Australia; Auckland, New Zealand; Vancouver and Ottawa, Canada; Dublin Ireland; Nagoya, Japan;	Again I say BRT technology has evolved but applications vary but most are to complement or add to an already existing transportation system as the use of BRT in Vancouver's Skytrain grade-separated light rail system.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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November 13, 2002.

TPD5/02-01724R
TPD5/02-01860R

Mr. Wendell Lum
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Dear Mr. Lum:

Subject: Primary Corridor Transportation Project

This is a combined response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your October 5, 2000 letter, your oral testimony at the October 5, 2000 Special Transportation Committee Meeting, your October 12, 2000 letter, and your oral testimony at the October 12, 2000 Public Hearing regarding the MIS/DEIS. Part B responds to your May 1, 2002 letter and your May 6, 2002 letter in response to the letter you received on your SDEIS EISPN comments dated March 8, 2002 regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *Suggest looking into a faster alternative, an automated people mover (APM) system, which is a light rail transit system but very quiet, not creating traffic congestion by not taking away lanes of traffic with high speed that only a grade-separated exclusive right-of-way can give and guaranteed to take cars off the road by cutting public transportation time significantly with 56 mph maximum speed and in much more comfort and driverless, being fully automated.*

   Response: As discussed in Section 2.6.1 of the MIS/DEIS and this FEIS, an elevated system was rejected by the public and City Council at the outset of the project because of its unsightliness and high cost.

2. *I'm against this BRT project.*

   Response: Comment noted. It states the commenter's preference for the LPA.

3. *I'm suggesting that the department or the City should go back and look at the automated people mover system.*

   Response: See response to comment #1.

4. *It's faster and it's automatic and actually it's a light-rail system but very quiet, not creating traffic congestion by not taking away lanes of traffic, with high speed and only a grade-separated exclusive right-of-way can give and guarantee to take cars off the road which I doubt this in-town BRT will do because we love our cars and it's time consuming making transfers.*

   Response: See response to comment #1.

5. *The draft EIS talks about 47% of people board the bus when we try to get on BRT will be involved in transfers maybe two or three transfers. And that's very time consuming.*

   Response: The operations plan has been refined to reduce the amount of transferring required between the Regional and In-Town BRT. Also, with a hub-and-spoke system, many connections will take place at transit centers where buses are scheduled to meet at a prescribed time to minimize the wait time for transferring passengers. The travel time savings including the transfers, with the Refined LPA will, in most cases, be faster than the existing system.

6. *Grade-separated vehicles can go up to .... The one in Vancouver has speeds up to 56 miles an hour and is much more comfortable and is automatic and it has a magnetic type of technology. There's no gears and it's quiet and it's well receptive. Worldwide there's lots of cities that have accepted and have gone ahead with construction.*

   Response: See response to comment #1.

7. *According to the Oahu Regional Transportation Plan, Preliminary Model Run Statistics, Daily Vehicle Delay (000s of hours) comparing year 2000 to year 2025 traffic congestion on all streets and highways will be severe. That's just another reason why I strongly feel a grade separated option for public transit similar to the existing and expanding Vancouver Skytrain system in Vancouver, Canada.*

   Response: Year 2025 forecasts indicate that there will be traffic congestion on major traffic arteries regardless of the transit technology. The Refined LPA will permit transit riders to reduce delays from being caught in this congestion wherever the BRT is given priority treatment.

8. *Because it runs on its own tracks, separated from roads, Skytrain eliminates conflicts that are frequent on the road system. And for that reason, it's almost always on time.*

   Response: Priority lanes for the BRT will also make the system better able to maintain schedule adherence.

9. *The engines on Skytrain, the linear induction motors, have no moving parts and rarely need maintenance, making the system one of the most reliable options in the world.*

   Response: See response to comment #1.

10. *Skytrain uses only one kilowatt-hour of electricity per 5.9 passenger miles – about the same amount of power it takes to run a color television for three hours, and far less than other rapid transit systems.*

    Response: The motive power costs of the EPT are also very low.

11. *It's quieter than most vehicles. Skytrain's noise emissions are comparable to those of an electric trolley bus.*

    Response: The noise levels of both the EPT and hybrid-electric propulsion systems would also be very low.

12. *Skytrain produces no air pollution.*

    Response: There will be no mobile source emissions from the embedded-plate propulsion system.

13. *Skytrain fully automatic cars do not have drivers and can run frequently as one-and-a-half minutes apart.*

    Response: The trade-off for installing such a system is the cost of the exclusive right-of-way. An exclusive right-of-way is not an option for the In-Town BRT due to prohibitive construction costs and visual impacts.

14. *According to OMPO's consultant, comparing the years 2000 and 2025, traffic congestion on all streets and highways will be very severe. This is just the reason why I strongly feel that a grade-separated option for public transit similar to the existing and expanding Vancouver Skytrain system in Vancouver, Canada.*

    Response: See response to comment #1.

15. *Because it runs on its own tracks, separated from roads, Skytrain eliminates conflicts that are frequent on the road system. And for that reason, it's almost always on time.*

    Response: See response to comment #8.

16. *The engines on Skytrain, the linear induction motors, have no moving parts and rarely need maintenance, making the system one of the most reliable options in the world.*

    Response: See response to comment #1.

17. *Skytrain uses only one kilowatt-hour of electricity per 5.9 passenger miles -- about the same amount of power it takes to run a color television for three hours, and far less than other rapid transit systems in the world.*

    Response: See response to comment #1.

18. *It's quieter than most vehicles. Skytrain's noise emissions are comparable to those of an electric trolley bus, produces no air pollution, and is fully automatic and is driverless and runs frequently as one and a half minutes apart.*

    Response: See response to comment #11.

19. *What I'm trying to summarize, I don't think the BRT system will do away with congestion. It will add to the congestion of our streets.*

    Response: See response to comment #1.

20. *And a system like the Skytrain is really affordable, and I think we should invite people from like, say, the construction company to Hawaii, and so we can get an idea on the cost.*

    Response: The transit system proposed for Honolulu in the 1990s utilized the same technology as Vancouver's Skytrain. One of the reasons it was eventually rejected by the City Council was that it was too costly (it would have required raising taxes), and it was unsightly.

21. *I believe -- you know, I know the City has spent several million dollars, maybe eight million dollars, but I think it's well worth to investigate the light rail option.*

    Response: See response to comment #1.

22. *And because the vision is very short, I think it has to look into the future, and I think this is the only way to go.*

    Response: Comment noted.

Part B – SDEIS Comments

23. *Another faster and much more comfortable mass transit alternative for the In-Town portion of the Primary Corridor Transportation Project for a grade-separated light rail system was left out with a poor explanation in the MIS/Draft EIS. Compare the 1992 proposal of a 15.9 mile grade seperated rail system which was projected to cost over a $1 billion U.S. dollars and the current the In-Town BRT of about 12 miles will cost maybe around $400 million.*

    Response: A grade separated system was rejected at the outset by the public and City Council as being too costly and unsightly. Selection of a Locally Preferred Alternative has already been made.

24. *The latest grade-separated technology now has a less intrusive elevated guide way. An example is the Vancouver Skytrain in Vancouver, British Columbia. An addition of 12.6 mile that is projected for completion after less than three (3) years on September 2002 and announced it will be completed with a surplus on April 16, 2002. The In-Town BRT portion costs are hypothetical yet and definitely more with a suggested long term plan and newer technology in the future.*

    Response: See response to comment #23.

25. *The Millennium Line includes construction of 13 architect designed glass enclosed transit stations with elevators/escalators, a twin 2500 feet tunnel which Honolulu does not require and twenty (20) pairs of next generation MK II Skytrain cars (260 passengers a pair) at a cost of below $762.5 million U.S. dollars. Guideway construction began in 1999 with MK II cars produced in Burnaby, B.C.*

    Response: See response to comment #23.

26. *The MIS/Draft EIS of August 2000 (pg. 2-42) states that an 11.8 mile elevated rapid transit system along the presently proposed In-Town BRT alignment would cost on the order of $1.6 billion in 1998 dollars and by comparison, the In-Town BRT system costs are estimated at around $375 million in 1998 dollars but which since has been increased with the Supplemental Draft EIS of March 2002.*

    Response: See response to comment #23.

27. *A shorter grade-separated light rail system from the proposed Middle Street Transit Station to the University of Hawaii without a Waikiki corridor can make it affordable and expandable in the future. Private local transportation companies can utilize the Hub and Spoke concept off Transit Stations(s) to do Waikiki also.*

    Response: See response to comment #23.

28. *From Rounds 1 and 2 of Oahu Trans 2K public meetings there were displays/models/slides of the Bus Raid Transit Proposal, No-Build, Enhanced Bus/Transportation System Management (TSM), and Light Rail Transit (LRT) but nothing of a grade-separated transit system not even the model produced from the older previous defunct 1992 15.9 mile proposal which was the overwhelming locally preferred alternative (LPA) then but down voted by a single vote by the then Honolulu City Council.*

    Response: A grade separated system was rejected early on in the PCTP by the public and City Council as being too costly and unsightly. Selection of a Locally Preferred Alternative has already been made.

29. *Critical community concern which was not explained in detail from the onset and other public meetings and also in the MIS/DEIS of Primary Corridor Transportation Project of August 2000 is the impact of what the lost of one and in many cases two lanes of auto traffic lanes and in many cases only a single lane of auto traffic each way on existing major street rights-of-ways.*

    Response: Chapter 4 of the FEIS fully discusses the consequences of converting selected general purpose lanes to priority use by transit vehicles. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

30. *An inventory of the participants in public meetings held by the City's Department of Transportation Services will show much less than 1% of the population of Honolulu's residents were participants. A significant amount of persons who were in attendance were repeaters, like myself, and form the City and County of Honolulu's Neighborhood board system and participants in the Mayor's Vision teams throughout the City and County of Honolulu. Many other local meetings had poor attendance as public records will show.*

    Response: The Primary Corridor Transportation Project has had one of the most extensive public outreach efforts ever undertaken on Oahu.

31. *The City Council's Transportation Committee Chair was also the chair of the Oahu Metropolitan Planning Organization (OMPO) which is the lead government agency for projects needing federal funding and whose Policy Committee lacked actual and real public participation as public records will show. He was a strong supporter of the In-Town BRT alternative only.*

    Response: Comment noted.

32. *The five (5) working groups selected mostly included individuals who were not familiar with other alternative mass transit systems available but were supporters of the In-Town BRT. They*

consisted of about 15 individuals, more or less, and their meetings were not advertised for volunteers and I never heard about them until their results were published in Oahu Trans 2K reports or in small articles in daily newspapers.

Response: Each working group consisted of 30-40 invitees representing neighborhood boards, transportation and environmental organizations, elected officials, government agencies, business people, private transportation providers, etc. Working group members reflected a broad cross section of stakeholders in that particular section of the corridor, including many people who had voiced criticisms of the LPA.

33. *I firmly believe the City's Department of Transportation services did not ensure that this "balanced treatment" was given to meet the federal treatment requirement that all alternatives were treated in a balanced manner. As it was the Locally Preferred Alternative in 1992 somehow someone made the determination to remove the grade-separated elevated alternative before Round 1 of the Trans 2K public meetings. It may be a blunder of the decade by the current Honolulu City Council and the Department of Transportation Services. The public was never given a chance either by vote or before the Trans 2K meeting began. It was determined before that.*

    Response: The Trans 2K meetings explored all the transportation alternatives. The meeting attendees collectively decided very early on that they did not want a grade separated public transportation system.

34. *The obstacles are many as all at-grade transit alternatives encounter. The In-Town BRT is a short-term help but quickly will add to the traffic gridlock as it takes away lanes of auto traffic. The speed as suggested and shown on video by the City's consultants are hypothetical and shown overlaid on motion pictures without any or real automobile traffic.*

    Response: See response to comment #29.

35. *The variations possible of BRT technology is not well defined for applications that will vary from city to city. But Vancouver, British Columbia in the west coast of Canada has a form of BRT technology but is used only to complement the existing Grade-Separated Elevated Vancouver Skytrain System and not by itself as Honolulu's proposal. Vancouver is enjoying success with its transportation system.*

    Response: The BRT will be one component in Honolulu's transportation system, which includes highways, the hub-and-spoke transit system – currently being implemented, private transportation providers, taxis, CityExpress!, TheHandiVan, etc.

36. *This mix of exclusive, semi-exclusive BRT and mixed –use lanes are each a part of the problem of a BRT system. Where are these cars who use the above lanes go? We have many close-by crossing streets which cars today use and there will be more cars in the future and the next generation. There are traffic lights at practically every intersection and high pedestrian traffic in Downtown. It would help with wide street rights-of-way.*

    Response: See response to comment #29.

37. *I see constant changes to try to balance a workable In-Town BRT with new problems with fewer auto traffic lanes, pedestrian crosswalks, left-turn lanes, traffic back-ups and some traffic grid-lock along with many disgruntled drivers as well as unhappy BRT and bus riders. Especially the ones who have to transfer to the In-Town BRT segment who find out it actually is slower than what was*

said by the City and its consultants. The In-Town transit stations are far from being comfortable without conveniences and limited in space/seating as I see in the plans because of our narrow street rights-of-ways.

Response: None of the prognostications cited are forecast to occur with the Refined LPA. The In-Town BRT stops will be substantially larger than existing bus stops. They will be able to accommodate the projected passengers at a high level of comfort, typically at over 15 square feet per passenger (LOS B). Ample seating, overhead covering from sun and rain, information kiosks, and other conveniences will be part of the amenities at each BRT stop. Transit centers will have additional amenities such as restrooms and vending machines.

38. *However, the changing of vehicles from diesel powered to another technology being suggested will add to the cost of the system. Bus transit is not as smooth and comfortable as a rail system which is much quicker being always on time at each and every transit station. Accidents will occur as any at-grade transportation system has shown.*

Response: There are certainly some positive attributes to grade separated transit. In Honolulu, however, these positive attributes have been weighed against the disadvantages and an at-grade BRT system has been selected as the LPA.

39. *Potential for accidents to happen is still there. Today cross walk signals are ignored by many with lots of jaywalking and running. There is liability with all at-grade traffic situations that possibly will happen sooner or later.*

Response: In certain locations where jaywalking pose a safety hazard, measures will be taken to mitigate against it. For example, along S. King Street near Iolani Palace it is proposed to install a barrier, consisting of decorative bollards with chains connected between them, along the edge of the sidewalk next to the curb to discourage jaywalking.

40. *Effects on general purpose and pedestrian traffic is key to avoiding traffic and pedestrian backups which will happen with all the things going on at practically all street intersections in Downtown during peak times and where traffic volume has been made worst with lost or limited auto traffic lanes. With car, resident and tourist population always on the increase situations will only get worse in the future.*

Response: See response to comment #29.

41. *Not much can be done to speed loading and unloading at BRT transit stations which will create delays in transit times as space is limited. Vancouver's Skytrain permits entry and exits through three (3) doors efficiently.*

Response: Boarding and alighting will be much easier with the In-Town BRT. Passengers will be able to get on-and-off from a platform that is at the same height as the bus floor (13 inches) so that there will be no steps to negotiate. Also, because there will be prepayment of fares, passengers will be allowed to both enter and leave from any of 2 or 3 doors on the articulated buses. Passengers in wheelchair and scooters will be able to board and alight directly without the use of a lift. Passengers with baby strollers will also find it much easier to get on-and-off the bus. The net effect of these features is that dwell time at stops will be less.

42. *Not much problem with hub-and-spoke bus in outlying areas but integration at BRT transit stations will be with limited space at proposed transit stations and single entry/exit to BRT vehicles.*

Response: See responses to comments #37 and #41.

43. *No quantitative numbers are given in Chapter 4 of MIS/DEIS for discussion on numbers of cars displaced only that there will be more transit riders. BRT has many limitations.*

Response: Chapter 4 of the FEIS quantifies the number of autos diverted to transit.

44. *The addition of an In-Town BRT to existing auto traffic including right/left turn lanes and pedestrian traffic only adds to complexity of another use at each and every intersection. This is another reason of unreliable/slow transit times further delayed by potential accidents, underground infrastructure problems and many others than a system with its own guide way. Comparing cost with Vancouver's Millennium Line addition coupled with strong U.S. dollar and weaker Canadian dollars is worth a look.*

Response: See response to comment #28.

45. *Public did support the proposed system as it was proposed in 1992. It was the Honolulu City Council who down-voted it. Today the grade-separated technology is very different using new techniques to install guide way members during construction.*

Response: See response to comment #28.

46. *Public did support the proposed system in 1992 and chose as the Locally Preferred Alternative (LPA) as shown in the DEIS in pages on Comments and Responses. A visit to Vancouver to discuss costs is suggested to make a real comparison for the best In-Town system once and for all.*

Response: See response to comment #28.

47. *The grade-separated technology is different from 1992 and from costs of the Millennium Line much more affordable with weaker Canadian dollar.*

Response: See response to comment #28.

48. *Every type of an at-grade transit system requires a driver(s) up front as the In-Town BRT needs. Vancouver's Skytrain does not need a driver. Security has been upgraded with the Millennium Line to include glass-enclosed transit stations as the public have asked during comment period on the addition.*

Response: See response to comment #28.

49. *Enforcement of violations of exclusive lanes for the In-Town BRT is just another problem with this at-grade transit proposal. The mix of regular buses with the In-Town BRT and auto traffic among other things add to at-grade traffic situations that will occur every day.*

Response: The need for enforcement has been taken into consideration in the planning for the Refined LPA, and will be followed through in development of the operations plan during the final design and implementation stages.

50. *Lack of wide street rights-of-way in Downtown Honolulu is another negative for the In-Town BRT. Narrow and long transit stops mostly can only be built.*

    Response: The proposed transit stops are designed to efficiently and comfortably accommodate the boarding, alighting, and waiting of BRT passengers.

51. *A grade-separated light rail system does not ever have to contend with disruption of service with its own guide way. Some of the other technologies suggested are not available today and would add to the cost of the In-Town BRT. BRT detours may be possible if distance is not beyond the limits of the suggested vehicle(s).*

    Response: Actual experience of elevated rail systems show evidence contrary to the assertion that it does not have to contend with disruption of service. Since they operate on fixed tracks any mechanical problem with one vehicle can have serious impacts on operations for hours. In contrast, the proposed BRT, since it is rubber-tired at-grade will have the flexibility to go around any blockage.

52. *The bus has improved to current BRT technology but appilcation is done differently in cities that heve used it. An example is that BRT technology is also to add or supplement existing transit systems already in place. An example is the one in Vancouver, British Columbia which is usad to bring transit riders from outlying areas around the city of Vancouver to use the fast and very comfortable Skytrain. Rouen and Lyon, France use BRT similarly.*

    Response: Comment noted.

53. *Narrow transit stops shown in preliminary cross sections of transit stops are what they are bus stops. Many are shown to be 8 feet in width, but probably less, with no human amenities and conveniences like Skytrains's with elevators and escelators to get you there to the platform with evan a place for light snacks, e book to read or to meke e phone call.*

    Response: The In-Town BRT stops will be a minimum of 8-feet wide, and wider wherever the conditions permit. Since no elevators or escalators are required to reach the platforms, this is ample width for passengers to get on–and-off the buses, circulate and wait. There will be seating provided along with other amenities including overhead protection from sun and rain, ample lighting, maps and information displays, newspaper racks, trash receptacles, and telephones.

54. *With the In-Town BRT alternative or even with a grade-separated elevated light rail alternative there is no other way. The hub-and-spoke concept helps to efficiently bring in transit riders from communities outside Downtown.*

    Response: Comment noted. It is a statement of opinion.

55. *Vancouver's Skytrain vehicles are exceptionally quiet. An argument by the City's Department of Transportation show lack of knowledge or any research done on current modern technology of the latest grade-seperated light rail systems which do not require any additional costs to mitigate noise control of any kind as being suggested. Also the vehicles in Vancouver's grade-separated system do not use drivers and have a perfect safety record since inception in 1986.*

    Response: There will be no need to mitigate noise from the In-Town BRT. The technologies being considered are inherently quiet compared to diesel buses.

56. *Both technologies proposed for the In-Town BRT are not really available today. But Vancouver's Skytrain Millennium Line cost of $762.5 million includes costs of all next generation electric cars which are built in Burnaby, British Columbia on the west coast of Canada. Also no drivers are used as they are automatically driven and under control from a primary location. Substantial savings are derived without a driver(s) for each pair of vehicles.*

    Response: Hybrid-electric buses are available today and will be used for the initial operations.

57. *Public did support the proposed system in 1992 and chosen as the Locally Preferred Alternative (LPA). The City Council down-voted it by a single vote. I can't understand why the public didn't vote for the choices.*

    Response: See response to comment #28.

58. *Again I say BRT technology has evolved but applications vary but most are to complement or add to an already existing transportation system as the use of BRT in Vancouver's Skytrain grade-seperated light rail system.*

    Response: See response to comment #28.

59. *The missing alternative is a blunder and I feel the taking away of car lanes or mixing the BRT with cars will cause quicker traffic gridlock. We love our cars and unless public transit is made much faster than the bus and with many human comforts and conveniences the In-Town BRT will not be successful as some politicians and advocates are suggesting.*

    Response: See response to comment #29.

60. *On the onset from Round 1 of Trans 2K right away I noticed no grade-seperated light rail alternative. I cannot see any at-grade vehicle both the In-Town BRT or the at-grade LRT as the best choice among the alternatives. A potential blunder could be happening here.*

    Response: See response to comment #28.

61. *Both the In-Town BRT and an In-Town grade-seperated light rail system will create many jobs. Both will provide growth in, along and around the corridors. However, costs with no need for transit drivers for an elevated system can be a yearly savings which brings down the actual cost of such a system over the long term. More technical and jobs related to the rail system as computers and electronics run the vehicles. Maintenance, as shown by Vancouver's Skytrain engines, having no moving parts rarely need any work making it one of the most reliable and quietest options in the world.*

    Response: See response to comment #28.

62. *Again the public did have a say, as shown in the DEIS of the 1992, and the alternative chosen was different and longer corridor of a grade-separated rail system which is different from the technology of today's Millennium Line in Vancouver, B.C.*

    Response: See response to comment #28.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00590

November 13, 2002

Mr. Donald Mack
98-288 Kaonohi Street
Aiea, Hawaii 96701

Dear Mr. Mack:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 19, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I do not support the use of the Kam Drive-In site as a bus hub for the following reasons.*

   Response: The former Kamehameha Drive-In site is no longer being considered as a transit center.

2. *It [see above comment] will create more traffic in an already high traffic area and thus compromise safety.*

   Response: See response to comment #1.

3. *Secondly, the buses will bring more noise, exhaust, dust and dirt into our neighborhood. The buses will create a traffic hazard. The double buses will be transiting constantly throughout this hub all day and night. I might also mention that right across the street is Pearl Ridge Elementary School.*

   Response: See response to comment #1.

4. *Now, former Councilman Mufi Hannemann, had proposed a park on this site. He was very emphatic about that. Couple of days ago, having returned from Seattle, I read an old newspaper, Honolulu Advertiser, October 11. And I have this available for your perusal. It says here, "Oahu is badly in need of park space." This article was written by John Whalen, a former City land use director. Briefly, he said that, in terms of park land per capita, urban Honolulu falls way below the average of U.S. cities of similar size and population density for parks.*

   Response: See response to comment #1.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00591

November 13, 2002

Ms. Elizabeth Mack

Subject: Primary Corridor Transportation Project

This responds to your testimony at the October 19, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS:

1. *My daughter has asthma and uses an inhaler. The City's plan to use the Kam Drive-In site as a bus hub for the City's bus system will drastically affect not only her health but elderly who live at Peerlridge Square.*

   Response: The former Kamehameha Drive-In site is no longer being considered as a transit center.

2. *Additionally, I do not support the use of the Kam Drive-In site as a bus hub for the following reasons: Peerlridge Square already has a high pollution from the freeway on the mauka, mountain side and Kaonohi, Moanalua road traffic that flows from the Peerlridge community. Exhaust rises up and affects our health. Buses will further pollute the area and endanger the health of children and elderly who have respiratory problems.*

   Response: See response to comment #1.

3. *High population density in the immediate area of Kam Drive-In ara two condos directly behind it, mauke and thousands of people living on the makai and Ewa side. Buses will create unsightly view for thousands of residents that live in the neighborhood. Ultimately our property values would be diminished.*

   Response: See response to comment #1.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

City & County of Honolulu
Plans to Converting the Kam Drive-Inn
To a City Bus Turn-around

RECEIVED
Oct 20 3 35 PM '00
CITY CLERK
HONOLULU, HAWAII

Presented by:

Randall W. Mack, CPP, CFE
98-099 Uao Place, Suite 2809
Aiea, Hawaii 96701-5009

October 19, 2000

Aloha, I have lived at this address since 1989 and during the past eleven years and I have seen the economy and crime rate go up and down. Currently, Hawaii's crime rate is down 39% and our property values have declined the same amount. The condo that we paid $225,000 in 1989 is now worth approximately $137,000, a 39% decline.

If this project will help sustain or increase the property values then I support your actions. If this project is going to decrease property values and/or increase crime or the risk, then I oppose this project.

I believe that providing on/off-ramps from Kaonohi Street onto H-1 will make it easier for residence to commute to/from work. This should make it more desirable and more people will want to live here, thus increasing the demand and increasing the property values. The increased traffic and noise will have a negative effect and may decrease property values.

The on/off ramps will also make it easier for shoppers to reach the Pearl Ridge Shopping Mall, which should increase business and business values, thus increasing property values; however, the traffic congestion and noise will decrease property values and increase the risk to pedestrians.

Many of the residence that live here do not drive and reside at the Lele Pono because of its close proximity to the shops and stores. Many are on a fixed income and can not survive a levy and/or an increase in property taxes to pay for this project. How will this project be funded?

The community needs more information before the residence can make an intelligent decision whether to support or oppose your project.

I will support this project if it increases the value of my property and I will oppose this project if it increases crime or jeopardizes my safety or the safety of the children and people who live here. Thank you for your time.

Respectfully,

Randall W. Mack, CPP, CFE

Cc: file

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TPD02-00592

November 13, 2002

Mr. Randall W. Mack, CPP, CFE
98-099 Uao Place, Suite 2809
Aiea, Hawaii 96701-5009

Dear Mr. Mack:

Subject: Primary Corridor Transportation Project

This is in response to your October 19, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I believe that providing on/off-ramps from Keonohi Street onto H-1 will make it easier for residents to commute to/from work. This should make it more desirable and more people will want to live here, thus increasing the demand and increasing the property values. The increased traffic and noise will have a negative effect and may decrease property values.*

   Response: Proposed on/off-ramps from Kaonohi Street onto H-1 have been eliminated from consideration. The new BRT-exclusive ramp proposed would be located near Aloha Stadium at Luapele Drive in close proximity to the Aloha Stadium's Overflow Lot that has been identified as a potential park-and-ride/transit center site.

2. *The on-/off ramps will also make it easier for shoppers to reach the Pearl Ridge Shopping Mall, which should increase business and business values, thus increasing property values; however, the traffic congestion and noise will decrease property values and increase the risk to pedestrians.*

   Response: See response to comment #1.

3. *Many of the residents that live here do not drive and reside at the Lele Pono because of its close proximity to the shops and stores. Many are on a fixed income and cannot survive a levy and/or an increase in property taxes to pay for this project. How will this project be funded?*

   Response: This project has been developed following City Council policy to not increase taxes. The financial analysis (Chapter 6 of the FEIS) shows that no increases in existing taxes or new taxes will be required to fund the project as proposed.

4. *The community needs more information before residents can make an intelligent decision whether to support or oppose your project.*

   Response: In addition to the MIS/DEIS, SDEIS and FEIS there have been substantial on-going efforts to inform the public about the primary corridor project and its impacts. These have included numerous public outreach meetings, seven progress newsletters, public hearings before

OMPO and the City Council, and presentations before neighborhood boards and other groups to make sure that the public had adequate information to make an intelligent decision whether to support or oppose the project.

5. *I will support this project if it increases the value of my property and I will oppose this project if it increases crime or jeopardizes my safety or the safety of the children and people who live here.*

   Response: Comment noted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

OCT -4 2000

FROM: Lee Manfredi
4134-1 Keanu Street
Honolulu, HI 96816
Tel/fax: (808) 735-8466

TO: Council member Duke Bainum
Chair, Committee on Transportation
City Council
City and County of Honolulu
Honolulu, HI 96813-3065
Tel: (808) 547-7004 Fax: (808) 523-4220

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HONOLULU, HAWAII

1

Dear Council Member Bainum, October 4, 2000

I'm sorry but I cannot attend the presentation at the Hawaii Convention Center on October 5, 2000 because of a prior commitment but I would like to submit a testimony. I have read, in parts, the nearly 400 pages of the Major Investment Study/ Draft Environmental Impact Statement: Primary Corridor Transportation Project, prepared by the U.S. Department of Transportation, Federal Transit Administration and the City and County of Honolulu, Department of Transportation Services, dated August, 2000. I will not address the environmental effect of this project but only the practicality and economic benefits of such a project for the populace of Honolulu.

On a personal level, the morning drive from Waialae-Kahala to Punahou School in Makiki, which should only take 7 minutes on any given day at any other time than rush hours, takes us 35 minutes. The highways and arterial roads are clogged with automobiles competing with SUVs, bumper to bumper, the entire length of the H-1. This happens all year round, year after year and getting worse. People in Hawaii have an out dated attitude about what a mass transit system is all about so they continue to join in the morning madness mindlessly; it's a habit they have become accustomed to.

The proposal for the Bus Rapid Transit (BRT) is long overdue. It is an excellent response and alternative to the congested roads and highways of this city. I have read many of the complaints against the system, i.e., it will take up parking spaces, noise, etc. but these same people also complained about the H-3 until it was completed and made the commute over to the Windward side a breeze. I have also traveled extensively and taken advantage of any and all mass transit systems in cities around the world; i.e., Hong Kong; Sydney, Australia; Auckland, New Zealand; Quebec, Canada; Paris, France; London, England; Chicago, Illinois; Seattle, Washington; and New York.

2

In many, if not, most, of these cities the mass transit system had become the primary mode of transportation for its populace; the car was a secondary and a luxury. In those cities, the highway use tax, fuel tax, garage parking fees, and parking meter fees were so high that it made it undesirable to drive a car into the city. Eventually, people became accustomed to taking the mass transit system. Two car (or multi-car, here) families are unheard of in these cities. Many families did not own any automobiles at all; regardless of income bracket. The automobile became an economic encumbrance for them.

The BRT will provide service to areas as far away as Kapolei, connecting to Kalihi, downtown, Waikiki and the UH Manoa. The system will transport a greater capacity of people utilizing significantly less space on the roads and highways. Less automobiles in the city centers results in less demand for parking spaces. Utilizing electrical vehicles will result in significantly less noise and air pollution than the existing noise and air pollution from the current petroleum or diesel fuel automobiles in traffic jams.

Hundreds of UH students drive to and from the campuses, one person per car. The UH parking structure and on-campus parking lots are jammed daily with cars, with long lines of waiting cars. Students do not need their own cars, fees for student parking should be raised significantly to discourage using cars to and from the campus; and to encourage the students to rely on the BRT to get to and from their classes.

As a long time resident and taxpayer of the City and County of Honolulu, I think the BRT should and will succeed to replace the existing transportation system. This new plan to network the entire city and the connective regions is superior to any that I have experienced or seen. This plan has my full support.

Sincerely yours,

Lee Manfredi

AR00015920

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00593

November 13, 2002

Mr. Lee Manfredi
4134-1 Keanu Street
Honolulu, Hawaii 96816

Dear Mr. Manfredi:

Subject: Primary Corridor Transportation Project

This is in response to your October 4, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *The proposal for the Bus Rapid Transit (BRT) is long overdue. It is an excellent response and alternative to the congested roads and highways of this city.*

   Response: Thank you for supporting the project.

2. *The BRT will provide service to areas as far away as Kapolei, connecting to Kalihi, downtown, Waikiki and the UH Manoa.*

   Response: The project will provide these connections.

3. *The system will transport a greater capacity of people utilizing significantly less space on the roads and highways.*

   Response: The proposed project will provide greater capacity vehicles and give drivers an option to the automobile.

4. *Less automobiles in the city centers results in less demand for parking spaces.*

   Response: Comment noted. We concur.

5. *Utilizing electrical vehicles will result in significantly less noise and air pollution than the existing noise and air pollution from the current petroleum or diesel fuel automobiles in treffic jams.*

   Response: The air quality and noise analyses results concur with this statement.

6. *Hundreds of UH students drive to and from the campuses, one person per car. The UH parking structure and on-campus parking lots are jammed daily with cars, with long lines of waiting cars. Students do not need their own cars, fees for student parking should be raised significantly to discourage using cars to and from the campus; and to encourage the students to rely on the BRT to get to and from their classes.*

   Response: Comment noted; however, DTS does not manage parking at the University of Hawaii at Manoa.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

BUS/RAPID TRANSIT

Development of the In-Town BRT system between 2002 and 2005. Transit stops, transit centers, and the transitway would be developed together to achieve a completely functional In-Town BRT system by 2005. (p. 2-40)

Sense of "Permanence"

The major transit investment should not only be compatible with, but reinforce, the City's growth shaping goals. To achieve this, the transit system should be seen as a permanent, form-giving component of the mobility system that serves the Urban Core.

For the transit system to achieve a sense of permanence, it should have formal transit stops, be fixed in a permanent alignment, and be designed to be compatible with the varied communities through which it passes. If designed properly, a transit system that would use either steel-wheeled or electric-powered rubber-tired vehicles could achieve this objective.

Power Source

Both the LRT and BRT technologies recommended for the In-Town system would be powered by electric motors... the recommended wayside power distribution system would be a relatively new in-street buried electric power distribution and collection technology referred to as "embedded plate". Embedded plate technology could also be used for BRT vehicles. Hybrid diesel/electric buses do not require a wayside power delivery system, since the power is generated on-board.

Separation from Traffic

...to the maximum extent possible, (BRT) should be separated from adjacent lanes by curbs.

Boarding

...With floor heights as low as 11 inches to approximately 24 inches, these vehicles would use stations with low platforms, and still provide level passenger loading without steps.

System Expansion

If in the future (beyond 2005) the additional capacity is needed... to require multiple units, this capability can be achieved by entraining LRT vehicles, whereas BRT vehicles cannot be entrained.

Capital Cost Difference

Embedded trackwork for an LRT system is estimated to cost substantially more per mile to supply and install than the high-capacity, high-quality paving needed for the BRT transitway (in the range of $8-12 million more per mile). Over approximately 11.8 miles, the cost differential would be $94-142 million. (**Note:** Power Source, states that both LRT and BRT can be powered by new embedded plate technology.)

(pp. 2-54,55, 56)

Note: **The DEIS is deficient**

SMA and Zoning Maps absent for Waikiki area (Figures 3.1-5 A-E)

Transit Center and Transit Station locations and descriptions absent (area covered, structural size and character, combined uses, access impact on surrounding community/communities, etc.) (Figures 3.1-6 A-D and 5.15)

Although Kapiolani Park was placed on the Register of Historic Places in 1992, it is neither listed nor mapped as a Historic Resource in the DEIS (Kapiolani Park Trust Lands include the Honolulu Zoo and portions of Kapahulu Avenue and Jefferson School). (Figure 3.10-1A and Tables 3.10-1 and 5.10-1) However, Kapiolani Park is mapped and listed as an adjacent Parkland Resource in the DEIS (Table 3.11-1 and Figure 3.11-1C).

Travel and Demographics

Note: **Statistics are based on the 1990 Census**

Projected high Ridership numbers to qualify for federal funding are derived from Island-Wide demographic totals not specific to Proposed Route

(pp. 3-43 to 3-50 and 4-4)

Highway Impacts

... Physical and aesthetic constraints make roadway widening within the primary transportation corridor very difficult and expensive, particularly within the Urban Core of Honolulu from Middle Street to Waialae-Kahala. Given the difficulty of adding lanes, future transportation improvements within the Urban Core are principally focused on transporting more people within the same roadway space as provided today.

The primary transportation corridor has two segments, the H-1 freeway segment, and the In-Town segment. ... lengthening and expanding hours of operation along with transit centers and express ramps for direct connection to the zipper lane.

... use of the existing Koko Head-bound shoulder lane would provide added capacity where it is needed most.

Improvements within the In-Town urban core with the TSM and BRT Alternatives focus on converting general-purpose traffic lanes to semi-exclusive and exclusive transit lanes. ... alternative to the automobile for mobility within the Urban Core.

Person Throughput

... reallocating roadway lanes from general-purpose use to transit or ride-share use. The BRT Alternative would provide significant gains in person carrying ability within the Urban Core due to its higher level of transit service than the other alternatives.

This analysis was conducted assuming an In-Town BRT articulated vehicle with a capacity for up to 120 persons per vehicle. By using even higher capacity vehicles (bi-articulated vehicles) or by further increasing the frequency of the BRT service, persons carrying capacity could be increased even more, without the need for additional roadway construction within the transportation corridor.

(p. 4-10)

Regional Roadway Mobility

The zipper lane system is an integral part of the regional BRT component of the BRT Alternative. It allows regional BRT vehicles to bypass much of the congestion that is present in the general purpose lanes on H-1 Freeway today and projected to be much worse in the future.

(p. 4-11)

Summary of Travel Benefits within the Urban Core

... TSM and BRT Alternatives would result in somewhat reduced LOS for auto traffic within the Urban Core. ... given public opposition to major roadway widenings and grade separations, these have been kept to a minimum.

The BRT Alternative offers the ability to accommodate even further increases in travel demand, without major road reconstruction. This could be achieved by using higher capacity BRT vehicles or further increasing the frequency of transit service. (Note: also a possibility of converting to new-technology embedded plate, entrained LRT referenced above)

Sensitivity Analysis

When planning efforts for the DEIS had begun, initial transportation analyses were based on hte 2025 population and employment forecasts for Oahu from a January 1999 draft report by DBEDT.

DBEDT recently revised their 2025 population and employment forecasts... a reduction of about 5%. Despite the revised DBEDT forecast... the net effect on vehicle trips and transit trips would be at most a two percent change. It was therefore deemed unnecessary to re-do the analyses because the change in the forecast was deemed not significant enough to alter the analyses and conclusions in this document substantially.

(p. 4-19)

BRT Route and Parking Impacts

... About 48 unmarked spaces on the makai side of Kapiolani Boulevard between McCully Street and University Avenue would be affected. ... University Avenue (56 unrestricted and 22 restricted).

... Saratoga Road (5 marked spaces), and Kapahulu Avenue (12 marked spaces).

The University Branch of the In-Town BRT could affect roughly 8 off-street parking spaces associated with Club Rock Za near the mauka-Ewa corner of Kapiolani Boulevard and Kalakaua Avenue. ... The discussion on displacements in Section 5.2 also deals with related parking impacts.

(p. 4-22)

In Waikiki, about 1609 meters (5,280 feet) of loading zone would be affected, mostly on Kalakaua and Kuhio Avenues. The In-Town BRT would operate in a semi-exclusive mode in the makai curbside lane of Kalakaua Avenue. As a result, commercial passenger and baggage loading would be restricted to side streets and loading bay areas only. ...

On Kuhio Avenue, BRT vehicles would operate in an exclusive lane mode, mostly in the second lane from the mauka curb. ... In these segments, the BRT system would be configured to operate in the median to allow for loading in those areas fronting the three hotels. The loading zones on the makai side of Kuhio Avenue would not be affected.

(p. 4-24)

In Waikiki, the transitway would follow a curbside alignment on Kalia Road, Saratoga Road, Kalakaua Avenue, Kapahulu Avenue and Kuhio Avenue. ...

On Kalakaua and Kapahulu Avenues, the single Koko Head-bound transitway would run along the makai and Koko Head curbs, respectively. These lanes would be closed to

general-purpose vehicles. ...

On Kuhio Avenue, ... in the Ewa-bound direction, a 4.3 meter (14 feet) wide curbside lane would be provided (to include bicycles)... The wider lane would be an improvement to existing conditions.

To improve or maintain the level of bicycle transportation in the study area, the following bicycle enhancement projects would be provided under the BRT Alternative:

Bike lane on Kalakaua Avenue between Saratoga Road and Kapahulu Avenue;

Bike lane on Kapahulu Avenue between Kalakaua Avenue and Kuhio Avenue;

Widen the west (Ewa)-bound curbside lane on Kuhio Avenue between Kapahulu Avenue and Kalaimoku Street.

(p. 4-27, 28)

Special Event Impacts

None of the alternatives would affect parades and large events, such as Hoolaulea, that are held on Ala Moana Boulevard and/or Kalakaua Avenue, even the BRT could be rerouted during parades, just as the bus routes along these streets are rerouted during parades today. The embedded-plate technology would require the substitution of buses for the BRT vehicles along that branch or branch segment during parades and special events.

(p. 4-29)

Land Use

Among the findings and recommendations of the land use panel was the conclusion that without a major investment in a permanent fixed transit system, the desired growth pattern in the PUC would very likely not happen. The land use panel viewed the PUC as being ``ripe'' for development and redevelopment when the economy rebounds. The panel agreed that appropriate implementation tools need to be established that favor development in the PUC, and discourage or prohibit development where it is not desired.

It was concluded by the land use panel that many of the ingredients are in place in Honolulu to implement a transit system that could be influential in accomplishing the City's stated land use goals. This conclusion was conditioned upon a comprehensive transit/land use implementation strategy developed and managed by a strong land development implementation body.

The land use panel pointed out that an important feature in attracting development along a transit corridor is the availability of already assembled tracts of land. According to... Transit Villages in the 21st Century, 1997...

(p. 5-6)

Displacements and Relocations of Existing Land Uses

Displacements would occur in the following cases:

at certain proposed transit stops, transit centers, and maintenance facilities where the space requirement of the transit feature could not be accommodated within the existing roadway or sidewalk right-of-way; and

along proposed transit alignments where the existing roadway right-of-way would not be adequate for proposed project elements (e.g. widening of Kapiolani Boulevard at Kalakaua Avenue).

(p. 5-25)

Visual Impacts

... The In-Town BRT stops in the Chinatown Special District, and in the Hawaii Capitol Special District would not have canopies or other elements which would impact views of any important landmarks. The transit stop planned in front of the Duke Kahanamoku Statue on Kalakaua Avenue, also would not have a canopy.

Other sensitive areas include the following:

Waikiki Special District
Ala Moana Park (and Kapiolani Park)
Kalia Road in Fort DeRussy
along Kalakaua Avenue
(Note: Kapiolani Park and along Kapahulu Avenue were omitted)

(p. 5-40)

Historic and Archaeological Resources

Because of potential federal participation, this project is required to be in compliance with Section 106 of the National Historic Preservation Act. In accordance with Section 106, the ``effect'' of the project on historic or archaeological resources must be determined by the federal agency proposing or regulating the project.

SHPD staff has indicated the possibility of an ``adverse effect'' on unknown archaeological sites. If an ``adverse effect'' were determined, an MOA would be prepared and would specify possible survey and/or monitoring procedures. The decision as to whether the project would have an ``adverse effect'' on unknown archaeological sites would be made when more detailed information is generated on the preferred alternative.

Construction of the BRT Alternative could uncover archaeological resources during construction of a Middle Street maintenance facility and the widening of Kalia Road in the Fort DeRussy area for the In-Town BRT system, because of previous archaeological finds in these areas.

(Note: The archaeological resources, iwi kupuna, uncovered along Kalakaua Avenue in the vicinity of Kapiolani Park Beach, Kuhio Beach, and Kapiolani Park are ignored in the DEIS!)

As earlier stated, if evidence of archaeological remains or sites are uncovered during construction of the BRT, TSM or No-Build Alternative, work would halt and the SHPD would be contacted immediately to coordinate special handling or investigative procedures.

(p. 5-65, 66)

Parklands and Section 4(f) Evaluation

This section discusses potential impacts to parks and recreational resources in the project area. None of the alternatives would change the character, function or use of any park or recreational resource in the study area, despite that the two build alternatives would use the Aloha Stadium overflow parking lot as a park-and-ride lot. This use of park property would trigger the provisions of Section 4(f) of the U.S. Department of Transportation Act. The TSM and BRT Alternatives would enhance transit access to parks and recreational resources in the project area by improving the level of transit service to parks along the alignments of these alternatives.

Vehicular access to Ala Moana Park would be adversely affected under the BRT alternative because of the conversion of two general-purpose lanes to transit lanes on both Ala Moana and Kapiolani Boulevards.

(Note: The DEIS again ignores Kapiolani Park.)

Section 4(f) evaluation... permits the use of land for a transportation project from a significant publicly-owned public park, recreation area, wildlife and waterfowl refuge, or a historic site only when it has been determined that there is no feasible and prudent alternative to such use. The purpose of Section 4(f) is to limit the circumstances under which such said land can be "used" for transportation projects. The word "use" in this case means:

land is permanently incorporated into a transportation facility

there is a temporary occupancy of land that is adverse in terms of preservation of the resource, or

the project's proximity to the site substantially impairs those functions that qualify the site as a Section 4(f) resource even though no land is permanently

or temporarily acquired... called "constructive use."

The avoidance of Section 4(f) resources was an important consideration in developing and screening the alternatives. None of the alternatives would use or take a historic site. Although elements of the BRT Alternative would traverse historic districts, no buildings important to the integrity of these districts should be used.

Of the many existing and planned public parks and recreational resources in the project area identified in Section 3.1.1, only one would be affected by the alternatives such that a Section 4(f) Evaluation is required. ...

(Note: The DEIS again ignores Kapiolani Park.)

(p. 5-69, 70)

Historic Resources and Archaeology

Depending on which alternative is selected as the Locally Preferred Alternative (LPA), there could be an "adverse effect" on historic resources. A complete discussion of the impacts of each alternative on historic resources is provided in Section 5.10. Should there be an "adverse effect," a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act would be executed. The MOA would stipulate detailed construction-phase mitigation procedures applicable to the specific resource adversely affected. The terms of the MOA would be strictly followed.

With respect to archaeological resources, most of the project would occur in areas that are already heavily urbanized and industrialized. In addition, most of the project requires little excavation. An archaeological contingency procedure would be developed in the unlikely event that unanticipated resources are encountered during construction. The SHPO would be notified immediately if any bones, artifacts or other signs of historic occupation are observed (refer to Sec. 5.10).

Historic buildings and structures are protected under State law...

(p. 5-80 and 82)

Parklands

Parklands are publicly owned. Subsequent developments would not encroach on parks. Impacts on parklands would be assessed during the environmental review process for each subsequent development.

(Note: Again, the DEIS again ignores the Kapiolani Park Trust.)

(p. 5-82)

TSM Alternative

Air pollution emissions... would increase about 20%.

Impacts to the neighbors, historic resources, water resources, and parklands would be similar to those under the No-Build Alternative. These impacts would be associated with the construction of transportation projects expected over the next three years.

Business displacements could be completely avoided under the TSM Alternative. ... Under the TSM Alternative, approximately 326 on-street parking spaces that are currently available during both peak and off-peak hours would be eliminated on Haonohi, Hing, and Beretania Streets. The bulk of the impact would occur in the in-town area along King Street between Middle Street and Waialae Avenue (269 spaces) ... McCully Street to Waialae Avenue 72 spaces.

Under the TSM Alternative, buses would operate on Kuhio Avenue in Waikiki in semi-exclusive lanes, affecting both mauka and makai curbside loading zones. The total impact is the equivalent of 48 loading zones.

The additional federal construction funds associated with the TSM alternative would translate into 947 new jobs created directly and indirectly during project construction.

(pp. 7-9, 10)

BRT Alternative

Through the use of electric bus technology, the BRT Alternative would reduce air and noise emissions ... regional air emissions would be less. ... would generally be quieter than conventional diesel buses. However, as with the TSM Alternative, the Regional BRT system would create a noise impact along a section of H-1 that would require noise mitigation.

... Transit center impacts will be separately analyzed in a subsequent phase since there are multiple alternative sites for each location. Under a worst cast condition, the BRT Alternative could potentially displace up to 12 businesses. Up to two partial displacements are also possible.

(Note: This segmentation of the cumulative project violates State law.)

The additional federal construction funds associated with the TSM alternative would translate into 3,080 person years of jobs created directly and indirectly during project construction.

(Note: What is the differential factor describing "new jobs", above, vs."person years of jobs"?)

(p. 7-10)

Cost-Effectiveness Analysis

...the lower cost per new rider represents the more cost-effective alternative. ... the cost per new rider for the TSM Alternative is $9.74, which is greater than the cost per new rider for the BRT Alternative of $7.67....

(Note: As determined by an assumption of a full 120 passengers per BRT vehicle and based on 1990 island-wide population data?)

(p. 7-11)

Environmental/Socioeconomic Equity and Benefit

... The BRT Alternative would increase daily transit trips by 16.2 percent over the No-Build Alternative. The BRT Alternative is projected to produce a 12.3 percent increase in daily transit trips over the TSM Alternative.

(p. 7-12)

TSM Alternative

... this alternative would not go far in developing attractive alternatives to the private automobile, or in enhancing desired land use development patterns or in supporting the implementation of the City's urban growth strategy that integrates land use and infrastructure planning. There would be some improvement in the linkage between Kapolei and the PUC, and in mobility improvement within the PUC.

This alternative would limit the use of 326 parking spaces ... Air and noise emissions would increase.

The total cost over 25 years would be $518.7 million ...annualized cost would be $41.42 million.

(p. 7-13)
BRT Alternative

... It would substantially increase people-carrying capacity within the corridor and help focus growth along the alignment of the In-Town BRT system. Higher density redevelopment in a transit-supportive manner, particularly at transit centers and transit stops, would be encouraged. ... supporting implementation of an urban growth strategy that integrates land use and infrastructure planning. It would help facilitate desired land use development patterns consistent with the vision for the island.

... transit centers, transit stops, and other project elements ... conditions through cohesively designed structures, street furniture, landscaping and lighting. The quality of urban living would increase.

... Transit patrons would reap travel time savings. However, this Alternative would cause more motorist delay than the TSM Alternative, which is expected to accelerate a switch in travel behavior from automobiles to transit. It would establish an attractive, high capacity linkage between Kapolei and the PUC. It would improve mobility within the PUC, including access to Waikiki because of the In-Town BRT System.

... Parking losses would be greater ... historical impacts would be relatively minor. ... Impacts during project construction would be substantially greater than for the TSM Alternative because of the greater scope and duration of construction, particularly building the In-Town BRT system transitway on arterial streets. The construction, however, will result in significantly more employment being generated than with the other alternatives.

The total cost over 25 years would be $1,060.3 million... Its annualized capital cost (including vehicle replacement) would be $82.6 million. Using FTA criteria, the BRT Alternative would be more cost-effective than the TSM Alternative in attracting new riders.

(p. 7-14)

... While the candidate technologies are in various stages of development and none are yet fully proven in revenue service, a decision on technology need not be made at this point. During the next year or so it is anticipated that both the embedded plate and hybrid diesel-electric technologies will advance to a state where they will be considered service proven. At that time, a decision on technology may be made.

The final selection of the technology for the In-Town BRT system would be based on a detailed evaluation of the technology options. The designs, and test/demonstration results of each technology would be evaluated against specific performance and functional requirements for the In-Town BRT system. These requirements would be provided to the

manufacturers and they would be asked to provide the City with design data and test/demonstration results, as well as prepare written comments on the City's requirements.

An Industry Review would then be undertaken. Separate meetings would be held with each participating manufacturer to review their comments on the City's requirements and discuss the City's questions. Following these meetings and site visits, a technology would be selected.

(p. 2-32)

May 6, 2002

MAY 7 2002

Federal Transit Administration, Region IX
U.S. Department of Transportation
201 Mission Street, Suite 2210
San Francisco, California 94105-1839
Attention: Mr. Raymond Sukys, Director
Office of Planning and Program Development
Ms. Donna Turchie, Senior Transportation Representative

Federal Highways Administration
Prince Jonah Kuhio Kalanianaole Federal Building
300 Ala Moana Boulevard, Room 3-306
Honolulu, Hawaii 96813
Attention: Mr. Abraham Wong, Division Administrator
Mr. Bruce Turner, Assistant Division Administrator

Hawaii Office of Environmental Quality Control
State Office Tower, Suite 702
235 South Beretania Street
Honolulu, Hawaii 96813
Attention: Ms. Genevieve Salmonson, Director

Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813
Attention: Ms. Cheryl Soon, Director

22 Pages Via Facsimile Transmission

Subject: Primary Corridor Transportation Project: Bus Rapid Transit (BRT) Supplemental Draft Environmental Impact Statement

Dear Ms. Turchie, Mr. Wong, Ms. Salmonson, and Ms.Soon:

For the purpose of this response, you will find that the enclosed concerns, questions and comments focus primarily on the proposed In-Town portion of the Proposed BRT Plan. In addition, specific concerns continue to include, but are not limited to, the following:

- lack of correlation to pending Primary Urban Center development plan revisions;
- absence of traffic testing for cumulative traffic impacts of the proposed In-Town BRT;
- absence of information and location of impacts on two significant historic sites and landscapes;
- incomplete community participation and questionable support for specific components, facilities, and routes for the In-Town BRT Waikiki terminus;
- public and private circulator transportation, service and delivery operations impacts;
- infrastructure and utility impacts;
- absence of defined and proven technology;
- absence of cumulative capital costs, operations subsidies and debt service as projected beyond 1998 dollars;
- absence of the defined City taxpayer burden to carry the non-federal cost of the proposed project;
- absence of ancillary facilities descriptions, locations, linkages and impacts on surrounding communities; and
- compromised present quality of life and "Hawaiian Sense of Place", e.g. adverse impact of dedicated/embedded rapid transit infrastructure, equipment, utilities and facilities on scenic viewplanes and landscapes.

Further, there is a question of incomplete expansion and improvement of the present Transportation Service Management program to meet its fullest In-Town potential, including maximizing the hub-and-spoke circulator system, express vehicles, and public and private ridership incentives. Finally, it appears that the larger objective of providing mass transit to serve the greatest number of people over the longest distance in the least amount of time remains to be comprehensively addressed.

Very truly yours,

Michelle Spalding Matson
3931 Gail Street
Honolulu, Hawaii 96815

cc: Oahu Metropolitan Planning Organization
Honolulu City Council

AR00015928

RESPONSE TO THE PRIMARY CORRIDOR TRANSPORTATION PROJECT BUS RAPID TRANSIT (BRT) SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

CONCERNS, QUESTIONS and COMMENTS

Traffic and Roadway Impacts

Reduced Level of Service and Traffic Overflow

The SDEIS states that to give transit the priority necessary to make it an attractive alternative to the automobile, some lanes along the proposed In-Town BRT alignment will need to be converted from general-purpose lanes to transit only lanes, which will ultimately result in reduced number of lanes for general purpose traffic (see 2-19). The SDEIS further states that major regional roadways would still experience traffic bottlenecks in 2025, and only the BRT could provide a non- congested travel mode through key intersections in the Urban Core that still would be at or near capacity, because the In-Town BRT would be buffered from traffic delays, which would result in additional reduced level-of-service for automobile traffic within the Urban Core (see 2-19 and S-8).

Thus, the In-Town BRT becomes a major part of the problem, not the solution. Prioritization of the BRT at congested intersections would mean stopping all other traffic at the intersections it approaches, in effect compounding congestion in the urban core. This, coupled with the integration of exclusive and semi-exclusive transit lanes and median loading platforms, will for the most part preclude normal traffic from using the main arteries of Honolulu due. Therefore, because of such lane restrictions and delays, the City anticipates that motorists will be forced out of their cars onto the In-Town BRT, when in fact, motorists will choose to take alternate routes through surrounding communities and neighborhoods instead.

Indeed, the SDEIS discloses that during construction of In-Town BRT transit lanes within existing streets, a public information program will disseminate information on detours and recommended alternative routes in order to minimize public inconvenience (see S-12 and S-15). Certainly, this information will be helpful to motorists in knowing which surrounding community and neighborhood streets are most accessible.

However, the SDEIS does not address the significant impacts on the surrounding areas resulting first from cumulative construction impacts or subsequently from restricted traffic lanes and the In-Town BRT's prioritization over vehicular traffic. Further, the City has conducted no comprehensive traffic count studies for the major thoroughfares proposed to be converted to BRT corridors, and the City has ignored concerns reflected in measures brought before the City Council and requests at public meetings to test the impacts of such lane closures on Honolulu's urban streets. How would neighborhoods surrounding BRT corridors be buffered from traffic overflow and congestion resulting from the buffered BRT and vehicular level-of-service service delays? How would ensuing traffic congestion otherwise be mitigated in neighborhoods surrounding BRT corridors? Prior to seeking the funds to construct the proposed In-Town BRT, the City must determine the significant physical impact this will have on the areas, communities and neighborhoods, surrounding the In-Town BRT corridors.

By implementing a simple two-to-three-month trial period of coning off the In Town BRT lanes proposed to be closed or limited to through traffic, and ramping up existing express and mauka/makai bus service with a mass transit publicity campaign, the effects of any ridership increase and traffic congestion impacts will become obvious. WHY HAS THE CITY ADMINISTRATION REPEATEDLY REFUSED TO IMPLEMENT THIS TRIAL PROGRAM, AND WHAT TRAFFIC IMPACTS ARE THEY HESITANT TO DISCLOSE? By avoidance of this Comparatively simple and cost-effective trial measure, the City administration appears to be concealing what could become Honolulu's worst traffic nightmare – the significant negative impacts of the In-Town BRT.

Ridership

The SDEIS states that the last detailed boarding study was conducted in 1991; that in February, 2000, DBEDT revised its 2025 general population forecast for Oahu downward by 5%; that the BRT would improve the person-carrying ability within the Urban Core by an average of 11% over the no-build alternative; that such capacity would be only slightly greater than the demand; and that the demand would amount to only a 3.3% increase in work trips (see 3-11 and S-8). Thus there would be a maximum capacity increase of 7.7% for non-work trips. But these trips are not defined and the SDEIS ignores the fact that both the Urban Core resident population and visitor count have continued to decrease over the past ten years.

Indeed, the majority of Honolulu citizens will not give up their automobiles to hop on the In-Town BRT simply to go from point A to point B. Many have two or even three jobs to maintain costly living expenses in Honolulu. Many have active families that require transportation to various activities, such as after-school soccer and baseball in the year-round mild climate. Many transport bulk purchases both during and after work hours from popular warehouse stores. And many of these tasks are required to be accomplished in between the others.

In addition, would the City choose to suffocate private enterprise by attempting to displace non-subsidized private sector passenger transportation with the City subsidized In-Town BRT? Public-private partnerships can be successfully forged to eliminate, rather than create, additional transportation subsidy burdens on the

local taxpayer, thus benefiting the public interest as well as promoting the welfare of private enterprise and the local economy.

Contrary to the City's claims, the BRT will not provide an "attractive alternative" to the automobile. It will provoke a forced alternative to the automobile - one that would be as roundly opposed as the State's recent quickly-failed traffic camera citation program, which is now going to cost the State taxpayers millions of dollars to undo.

Infrastructure Impacts

The SDEIS states that the In-Town BRT vehicles would operate at-grade in exclusive transit lanes along major arterial streets (see Table 2.2-4). In other locations, the In-Town BRT system would operate either in semi-exclusive lanes (used by transportation carriers or vehicles making turns) or in mixed traffic. Along about 38% of its length, the In-Town BRT would run in transit lanes in the median of existing arterial roads (e.g., sections of Kapiolani and Dillingham Boulevards). Along 29% of the alignment, the system would run along the curb in semi-exclusive lanes. Semi-exclusive lanes would be shared with right-turning vehicles, and in the case of Waikiki, with other buses (public and private) and trolleys. For the remaining one-third of the alignment the BRT would operate in mixed traffic (see 2-11).

Many recent failing water mains and sewer lines have already demonstrated the serious impact of providing only one or two lanes available to through traffic. The In-Town BRT would be intensifying this impact by taking the following:

Downtown
- Dillingham - **2 center lanes**
- Iwilei - **2 lanes**
- North King - **2 lanes**
- Hotel - **2 lanes**
- Bishop - **1 curb lane**, makai
- Aloha Tower Drive - **1 curb lane**, makai
- Alakea - **1 curb lane**, mauka

Kaka'ako Makai
- Nimitz - undefined
- Ala Moana - undefined
- Channel - undefined
- Ilalo - undefined
- Ward - undefined
- Auahi - undefined

Kaka'ako Mauka
- Halekauwila - **1 lane**
- South Street - **2 lanes**
- Pohukaina - **2 lanes**
- Auahi - **2 lanes**
- Queen - **2 lanes**

UH-Manoa
- Richards - **1 lane**
- South King - **1 lane**
- Pensacola - **2 curb lanes**, Ewa side
- Kapiolani - a) **2 center lanes** to Atkinson
  - b) transition from 2 center to **2 curb lanes** in mixed traffic to Kalakaua
  - c) **2 curb lanes** to Isenberg
  - d) transition from 2 curb to **2 center lanes** in mixed traffic to University
- University - **2 exclusive center lanes** to South King
- South King to UH - **1 semi-exclusive curb lane**
- UH to Kapiolani - **1 exclusive center lane**

Waikiki Loop
- Ala Moana - a) **1 semi-exclusive makai curb lane** to Kalia
  - b) **1 exclusive mauka center lane** to Hobron, **1 semi-exclusive mauka curb lane** to Kalia
- Kalia - add **2 lanes** to Saratoga
- Saratoga - **2 lanes**
- Kalakaua - **split 1-way couplet**
- Kalakaua to Kapahulu - **1 semi-exclusive makai curb lane**
- Kapahulu to Kuhio - **1 semi-exclusive curb lane** at Waikiki Terminus - Kapiolani Park Transit Stop
- Kuhio to Saratoga - **1 semi-exclusive mauka curb lane**

To compound this conundrum, the City administration proposes to raid the City's Sewer Fund to balance the City's budget to ultimately fund the first $35 million of the Waikiki-to-Downtown segment of the In-Town BRT (see Exhibit C, attached). However, if the Sewer Fund is raided for the first $35 million this year, how will the remaining 82% work trips in automobiles (see S-8) get through the torn-up streets with the BRT consuming traffic lanes as the 100-year-old sewer lines continue to break? The traffic will not magically disappear, as the City administration would have us believe. Again, it will simply be rerouted to a greater magnitude via ripple effect into and through surrounding neighborhoods and communities.

Further, the SDEIS states that the construction implementation schedule would focus construction-phase impacts in one area at a time by geographically distributing the work at each phase of construction, with development of the In-Town BRT system between 2002 and 2006, with the initial fleet of In-Town BRT vehicles being ordered, manufactured and delivered in 2003 and 2004, and with testing and start-up occurring in 2005 (see 2- 25 and 28). However, the SDEIS also states that a decision on the In-Town operating system technology "may" be made in another year, as existing technologies either do not satisfactorily meet the City's expectations and specifications or have not advanced to a state where they are considered service proven. As no decision has been made on an appropriate technology, how can capital and operating costs be projected with any reliability? In addition, the SOEIS states that construction schedules would be phased according to the availability of funds. Therefore, the construction schedule would be flexible and could be delayed according to fiscal constraints (see S-16).

In viewing the above wavering revelations en toto, it does not appear that the City has an efficient and effective plan to implement this project as stated, or to even mitigate its impacts on the Honolulu urban community. With deficiencies of such magnitude, it can be concluded that traffic solutions for Honolulu require further study for more appropriate and effective alternatives.

Notably, the SDEIS states that the BRT would be superior to the TSM alternative in terms of regional mobility, and that greater mobility would be provided by the BRT because of increases in transit and HOV use (see S-8). Thus, the question arises as to why the In-Town BRT is proposed to consume lane space in the urban core when it could be placed in more efficient use over longer distances in the regional Ewa-Downtown application, and when greater flexibility and mobility can be provided by smaller high-occupancy vehicles with a greater number of routes and more convenient stops in the urban core in lieu of fixed 130-person capacity trams on dedicated lanes in a confined area?

Community Impact

The In-Town BRT portends surging land re-development and higher property taxes along transit corridors, forcing small businesses out of once affordable business districts. The SDEIS is not shy about exposing this objective, as it states repeatedly that more desirable land use and development patterns in coordination with specific developers are in store for Honolulu's established urban communities. In fact, the SDEIS identifies one criterion for selection of a new transit technology as being a specific alignment to "evoke the desired land use response from land developers" (see 2-19). Thus, the SDEIS demonstrates little to no concern for the future welfare of the small businesses, patrons, and residents of the areas proposed to be impacted by the In-Town BRT transit corridors, and indeed, is ultimately writing them out of the equation in favor of increased development and density – supporting not the community, but the In-Town BRT.

According to the SDEIS, the proposed In-Town BRT will necessitate 17 businesses to relocate, along with up to 47 partial business displacements. Fair market compensation for land, buildings, and uses would be provided to property owners directly affected by right-of-way requirements, and affected businesses would be encouraged to plan moves in advance so that relocation would occur with minimal delays and inconvenience (see S-10 and S-12). Further, land value increases generated by development rights will cause property taxes to skyrocket, and the remaining small businesses will be unable to survive in the redevelopment area. Thus, for example, the BRT corridor along Dillingham Boulevard would incite removal of small businesses, consolidation of lots, and construction of highest and best use buildings, both in value and density - serving not the community, but the developer.

The SDEIS states that where on-street parking is removed to permit BRT transit lanes, new neighborhood parking facilities would be considered to replace on-street parking, but only if they served a community purpose (see S-8). Thus, many residents in single-family dwellings along BRT transit corridors, including University Avenue, would be without adequate parking for their homes unless this becomes a larger community need. Once determined as a community need in this established residential area, one or more residential lots in a central location would be required to be taken by the City's power of eminent domain to build a multi-level parking garage in order to fulfill the public purpose of replacing the public parking that was lost to the BRT. Again, this appears to be contrary to the welfare of the established community.

Here also, the SDEIS lists another criterion that the selected transit technology must be flexible enough in order to not pre-empt parades or other activities along the alignment. Yet the proposal does nothing to ensure that the In-Town BRT does not disrupt businesses and residences as it bisects the communities and business districts it passes through every 2 to 4 minutes via dedicated transit corridors. In fact, the SDEIS aggressively proposes to remove 912 parking spaces and 725 feet of curbside loading space to provide for dedicated curbside BRT lanes (see 4-25 and 4-26).

This impact would be greatest in commercial business and Waikiki resort zones within the Urban Core, where loading areas are vital and must be accessible in order to ensure efficient and timely delivery of goods and services. However, the SDEIS fails to address established loading requirements of the private trucking and delivery industry in Waikiki and other commercial areas along the In-Town BRT corridors. Further, the SDEIS fails to address the cumulative economic impact of the In-Town BRT on surrounding businesses and resorts, and private delivery and non-subsidized passenger transportation services when one lane is removed from Bishop and Alakea Streets and Kalakaua, Kuhio and Kapahulu

Avenues, and when two lanes are removed from Kapiolani and Dillingham Boulevards and University Avenue.

Impact to Significant Resources

The BRT SDEIS makes no mention that either Kapiolani Park or Irwin Memorial Park are listed on the Hawaii State Register of Historic Places and eligible for the National Register of Historic Places (see Table 5.10-1 on 5-45). Yet, the BRT SDEIS describes the BRT 60-foot trams running curbside to these sites. Further, Kapiolani Park is a known habitat for the white tern, listed as endangered by the State of Hawaii and a federally protected species under the Migratory Treaty Bird Act (see S-11).

There is a serious question as to why the SDEIS does not recognize and acknowledge Kapiolani Park, which is nearly 200 acres, as a significant site contiguous to the proposed In-Town BRT corridor. The SDEIS states that the In-Town BRT terminus is at an undefined transit stop on the Koko Head side of Kapahulu Avenue between Kalakaua and Kuhio Avenues (see 2-16 through 19 and 3-3 through 3-7). This places the BRT Waikiki turnaround transit stop, with attendant 8-ft. wide, 160-ft. long raised loading platform, ADA ramps and railings, and power supply sub-station upon and within the Kapiolani Park Trust lands on Kalakaua Avenue and fronting the Honolulu Zoo (see S-1, 2-12 and sheet TRM 14 dated 7-24-00, Exhibit A as attached). In addition to Kapiolani Park being listed as a Registered Historic Site, the Court has ruled that municipal facilities are not an appropriate use of Kapiolani Park Trust lands (see SP No. 89-0015, Conclusions of Law and Order, 1991).

In view of the above, the location of the proposed BRT route's attendant municipal facilities would therefore appear to be a violation of the historic trust provisions, as well as a significant negative impact on the historic landscape and viewplanes of this historic site.

While the City claims that only shelter and street furniture improvements are planned to be constructed at the Kapiolani Park terminus (see 2-18), there is additional concern that the cumulative impact of the municipal facility components of the In-Town BRT transit system will evolve into much more than a mere bus stop at this terminus. Indeed, the SDEIS states that a) certain local routes would be converted into circulators to feed the In-Town BRT system and new circulator routes would provide frequent service from the transit stop on the Koko Head side of Waikiki (see 2-5); and b) project elements such as ...transit stops... provide urban design opportunities to improve existing landscapes with cohesively designed architectural elements, landscaping, street furniture, street trees and lighting (see S-10.). Thus, Kapiolani Park is planned to be the access point from East Honolulu to the BRT system's Waikiki-to-Downtown route, and there is additional concern that the Design Opportunities the City administration has planned for the proposed BRT project could most assuredly impact the historic landscape of Kapiolani Park as well with expanded parking and transit center amenities to service East Honolulu access to the In-Town BRT system at this Waikiki terminus (see 2-18).

Along with ignoring that the selected Waikiki transit terminus is a historic site, the SDEIS also does not address the visual impact of the 60-foot long, 15-feet-high double tram cars impacting the significant historic park, Diamond Head and shoreline viewplanes every 3 minutes, nor the structural impact of the raised end elongated loading platform and power supply station within the monkeypod trees and open space of this historic landscape along Kapahulu Avenue. From this it can be easily determined that there is much about the Waikiki/Kapahulu segment of the In-Town BRT proposal that remains to be disclosed. There are many more unanswered questions about the impact of such a plan on this historic site, including but not limited to the question of what is to become of this significant area if this East Honolulu public transportation terminus is implemented?

Further, while transit stops, centers and transfer points are shown for the In-town BRT from Iwilei to Kamakee, no transit stops or transfer centers are shown for Waikiki in the SDEIS. However, as with the University/King Transit Stop accessing the mauka In-Town BRT route with peak period service proposed to be generally provided every 5 to 15 minutes and off-peak service every 15 to 30 minutes (see 2 - 7), the Kapahulu Transit Stop at the Waikiki BRT terminus is clearly a foreseeable candidate as a transit center transfer point for bus routes from East Honolulu accessing the Waikiki-to-Downtown In-Town BRT route.

Surely these concerns and any impact disclosures prompted therefrom should be properly addressed in an additional SDEIS specific to the Waikiki segment in accordance with the established Environmental Impact Review process for proposed projects funded by public revenue sources.

As an example, the SDEIS states that the Kaka`ako Makai Branch would operate between the Iwilei transit Center on the Ewa end and an undefined Kapahulu Stop on the Kokohead end (see S-5), and goes on to disclose that portions of the Kaka`eko Mauka and Makai branches on Richards Street have been realigned to address resident input (see S-6), as objections to using Richards Street makai of South King Street for the BRT route lead to requests for the City to explore alternate alignments (see 2-29). Further, the Director of the City Department of Transportation Services, Cheryl Soon, clearly stated at the McCully/Moili`ili Neighborhood Board's regular meeting of February 7, 2002, that the planning process will have as many meetings as needed (see Neighborhood Board #8 Meeting Minutes, page 5).

However, although specific concerns were stated in responses to the BRT MIS/DEIS regarding the Kapahulu end of the proposed BRT route as described, there has been no further opportunity for resident community input regarding the impacts of the proposed In-Town BRT corridor on this area, and more specifically

Kapiolani Park. In fact, interested and affected organizations and individuals, including but not limited to the Kapiolani Park Preservation Society and the Diamond Head/Kapahulu/ St. Louis Heights Neighborhood Board, have been neither directly informed of nor invited to sporadic Waikiki workshops to address the Waikiki segment of the In-Town BRT route. Further, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board was informed by City Councilmember Bainum at their April 11, 2002, regular meeting that there would be no SDEIS published on the In-Town BRT lane relocations, commercial loading zone changes, or any other changes to the Waikiki/Kapahulu portion of the proposal.

Therefore, desired community input on the potential significant impacts of the In-Town BRT on the Kapahulu area has been virtually precluded. Had the few Waikiki workshops occurred openly and informatively, the concern about the potential significant impact on one of area's most prominent historic sites along the proposed In-Town BRT route, Kapiolani Park, could have been brought forth.

Visual Impact to Viewplanes

The SDEIS states that priority treatment for buses would involve minimal physical change, resulting in little or no visual impact to the existing landscape, regardless of land use (see S-10). However, the SDEIS does not address the visual and viewplane impact on the traditional Hawaiian Sense of Place for residents and visitors alike experiencing the 51 futuristic, 60-foot-long double tram cars, 15 feet in height, as they stop in front of historic Iolani Palace, cut along the significant Waikiki ocean shoreline viewplane, and intrude on historic Kapiolani Park landscape and significant Diamond Head resource viewplanes every 3 minutes.

In addition, a tree survey and impact analysis for the In-Town BRT identified 144 trees that would be impacted by the project, of which 36 trees are classified as "notable", i.e., important to the urban landscape character, either individually or grouped to comprise a recognized and important element of the visual landscape (see S-11). According to the SDEIS, a certified arborist determined that 25 trees were too old or otherwise unsuitable for successful transplantation, and these trees would be replaced elsewhere with City stock trees. Further, removing and relocating ten (10) "notable" mature monkeypod trees from Kapiolani Boulevard (see S-14) would unquestionably have a grave effect and significant impact on the visual character and integrity of this area!

Financial Planning Deficiencies

Assumptions

The SDEIS states that a financial plan analysis, conducted by consultants hired by the City administration, assessed the City's ability to operate and maintain the proposed transportation network, and financial plans were developed based on two key **assumptions** among others: 1) that the full scope of each alternative must be completed without raising taxes, and 2) that the City's high bond rating must not be affected. The SDEIS further states that funding would be sought from multiple federal and local sources, and that City general obligation bonds would be used to fund up to 47% of the cost of the project and additional general obligation bonds would be issued to fund early construction activities in **anticipation** of later federal or State reimbursement (see S-15, 16 and 18).

However, the above assumptions did not factor in the fact that the State has now declined to assist with the financing of the proposed project. This would appear to place an unduly burdensome risk on the City's taxpayers and have the potential to jeopardize the City's bond rating.

The SDEIS defines the local funding for this $1 billion project as $285.9 million in general obligation bonds with interest and principal debt service paid by the local taxpayer, and the City highway fund for $35.7 million, with the remainder of the $904 Million - $422.3 Million and $160 Million - coming from Federal Transit Administration and Federal Highway Funds, respectively. For FY 2002 to 2010, the average total annual impact on the City taxpayer general fund (89%) and highway fund (11%) required for capital cost and operating cost subsidy would be: $107.8 Million for the regional BRT system (see S-18).

The SDEIS further states that based on the above assumptions, major existing revenue sources were examined and costs were then compared to the revenue projected to be available from these sources over the nine-year period of FY 2002 to FY 2010, the period within which all of the capital improvements except vehicle replacements would be implemented. However, this could be somewhat misleading, as the SDEIS states that construction schedules would be phased according to the availability of funds and would be flexibly adjusted according to fiscal considerations (see S-16). Therefore, considering the question of availability of funds and the phasing of flexible construction schedules this may mean that in view of the State withdrawing from the project, construction may be delayed indefinitely or discontinued permanently with any shortage of local funds.

Costs in 1998 Dollars

Further, because the SDEIS addresses the cost of the proposed project in terms of 1998 dollars, the SDEIS appears to be highly misleading and without regard for the total debt cost and capital expense outlay over the implementation phase of the proposed project.

The SDEIS states that capital costs for the regional BRT from Kapolei to Kapahulu would cost $904 million over nine years from FY 2002 to FY 2010, and that construction of the In-Town BRT transit lanes and acquisition of a fleet

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of 51 high capacity electric vehicles would cost $345.5 million with the balance of the capital costs to expand existing maintenance facilities and increase the transit fleet to 730 buses. The SDEIS further states that the capital costs for the In-Town BRT would be $388.2 million from FY 2002 to FY 2025 (see S-17 and S-6).

However, Table 2.3-1 on 2-26 of the SDEIS lists a different set of numbers – $355.64 million for the In-Town BRT with a total cost of $999.5 million, and notes this increase includes $32.8 million for the addition of the Kaka'ako Makai branch and the Pensacola St. realignment, $8.3 Million for 13 additional In-Town BRT vehicles, and $14.5 Million for BRT alternative refinements.

In any event, the question remains centered on the mixed juggling of the numbers and whether these costs are limited to capital costs only, while annual inflation factors from the 1998 level through 2025 and debt service, including City taxpayer repayment of principal and interest, should be more properly disclosed as well.

Local Taxpayer Cost - A Quality of Life Impact

The non-federal capital cost of the proposed BRT project is to be financed through City taxpayer-reimbursed General Obligation bonds. The SDEIS states: "BRT would result in over 18% WORK TRIPS on transit...and 14.7% with no-build" (see S-8). This is only a 3.3% increase in work trips at a cost of nearly $1 Billion in 1998 dollars, not including debt service.

Further, the operations and maintenance cost is projected at a whopping 71% to be subsidized by City taxpayers to supplement collected fares (see 6-1). According to the SDEIS, operations and maintenance subsidies for the regional BRT in 1998 dollars would be $133 million in FY 2025, and the total estimated operating cost for the regional BRT system would be $188.4 million in FY 2010 (see S-6, 17 and 18). Thus, all but at least $55.4 million of the operations and maintenance costs of the regional BRT system will be subsidized by the Honolulu taxpayer in FY 2025 - a 71% subsidy to increase work trips only 3.3%. Yet, Councilmember Bainum's Resolution adopted by the City Council last year places a 33% ceiling on any transit subsidy (see Exhibit B, attached).

Together, as formulated in the SDEIS, this is going to cost the City taxpayers annually $83 million in capital costs and $133 million in operations subsidy, with In-Town fares only covering 4% of the additional operations cost. This capital and operations cost totals $216 million City taxpayer dollars paid annually as of 2010, with undefined debt service and inflation costs.

The SDEIS defines the local funding for this $1 billion project as $285.9 million in general obligation bonds with interest and principal debt service paid by the local taxpayer, and the City highway fund for $35.7 million, with the remainder of the

$904 million capital investment (in 1998 dollars) - $422.3 million and $160 million – coming from Federal Transit Administration and Federal Highway Funds, respectively (see S-18). Here the City anticipates a 64% : 36% funding ratio for funding from federal and local sources, respectively. However, federal funding practices indicate that high-end transportation projects in the $1 billion range, such as that proposed for Honolulu, would only be funded at a 50% : 50% matching fund ratio, as the more costly the project, the less federal funding match awarded. Further, according to national experts in this area, this would be allocated at only $100 million annually for five years to help ensure accountability.

Moreover, current indications are that the Congressional re-authorization dollar amount is going to be controversial this year in a battle of how much will be inserted in the transportation bill. In addition, the Federal Transportation Administration has confirmed that the State has withdrawn support of the Honolulu BRT project proposal and is no longer part of the BRT financing equation.

Yet, the City administration "anticipates" federal and state funding reimbursement "later", and the City administration "assumes" that the $1 billion-plus transportation project will be completed without raising taxes, and that the City's bond rating will not be affected (see S-16 and S-18).

Does the City and County of Honolulu have the financial capacity to afford this? Under the City's current fragile financial condition it would appear that this would place an unduly burdensome weight on Honolulu City taxpayers, as well as negatively affect the City's current bond rating to the point where such rating agencies as Moody's, Standard & Poor's, and Fitch's could downgrade City bonds to junk-bond rating, causing financing costs to soar even higher for City taxpayers. Rather than paying down the debt load, the present City administration advocates restructuring the City's debt load by creating more debt to pay off existing debt, spinning the City taxpayers, those ultimately responsible for satisfying both principal and interest paid on capital improvement general obligation bonds, into an ever deeper fiscal black hole. Therefore, the In-Town portion of the proposed BRT system, with all its inherent problems and impacts on the urban core, will be much, much more than a bad investment for City taxpayers – it will become an unwieldy fiscal burden on the citizens of Honolulu.

Conclusion

The proposed In-Town BRT is a very restrictive undertaking. It restricts the free flow of traffic. It restricts the free enterprise of private carriers by threatening their livelihood. It restricts open discussion of reasonable alternatives for REAL traffic congestion solutions. And last, but certainly not least, it restricts

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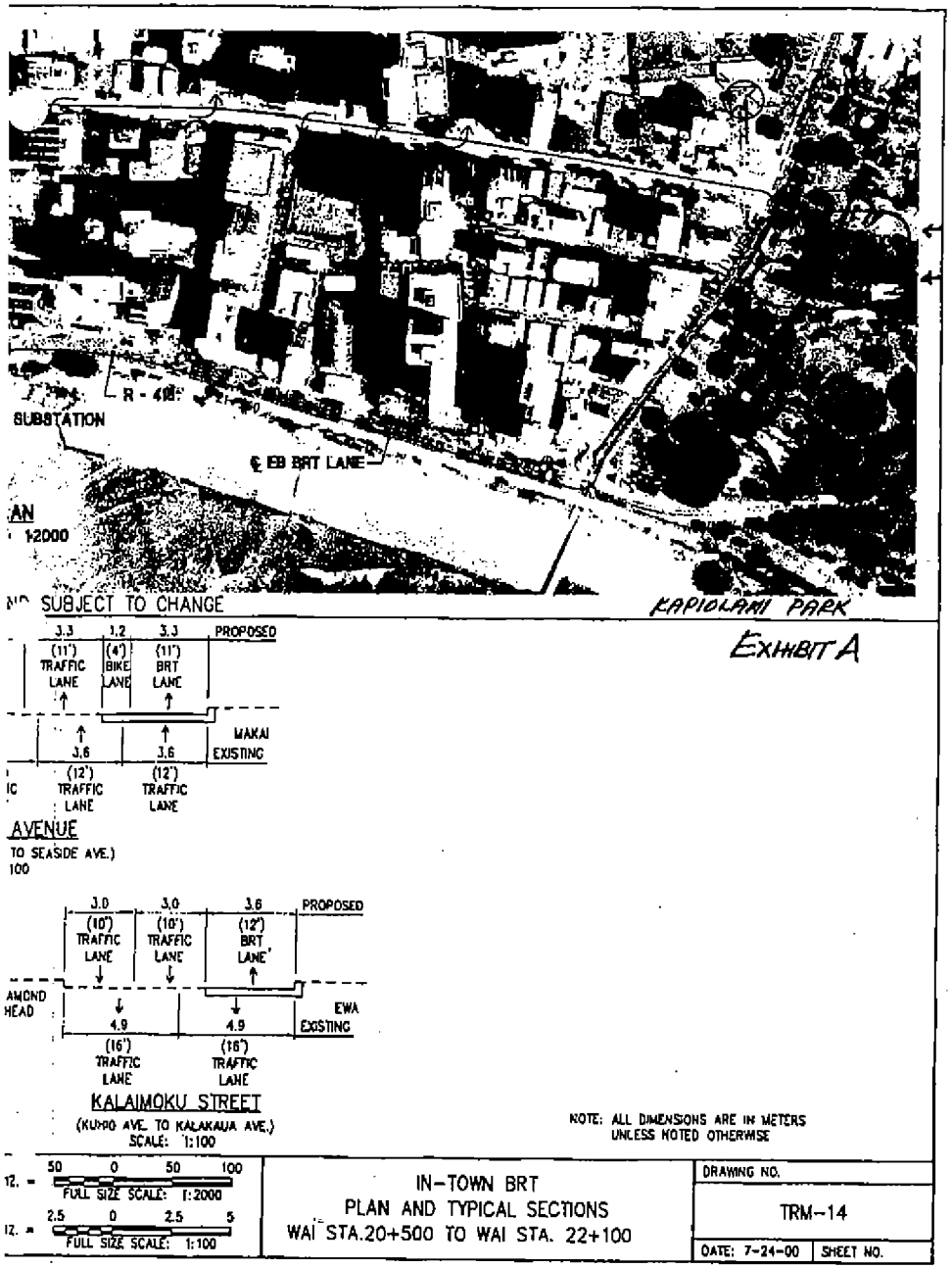
advancement of the quality of life in our urban area by overburdening the City taxpayers with unwieldy capital and operations costs.

What does the In-Town BRT really mean? It means compounded congestion on main thoroughfares by 60-foot trams every 2 to 4 minutes that eat up traffic lanes. In spite of the City administration's claims, this will not get cars off the road. It will cause cars to circum-navigate the main traffic thoroughfares into surrounding communities and neighborhoods, increasing congestion, noise and pollution in residential areas. The construction jobs are temporary - but the impact on our streets, in our neighborhoods, and on our livelihoods will be here to stay for several generations if the In-Town BRT is allowed to roll forward.

The In-Town BRT is the wrong system for Honolulu's contained urban area. The solution to Oahu's urban traffic gridlock is over the longest distance to serve the greatest number of people in the least amount of time. This transportation proposal should be focusing instead solely upon addressing Oahu's transportation needs between Kapolei, the "Secondary Urban Center," and Honolulu's urban core (see S-3). Ironically, what is most practical and less costly for the higher density in-town Honolulu Urban Core surrounded by smaller mountain, valley and shoreline communities and business districts, is a combination of far more accessible, flexible and convenient public and private circulator and express routes – that which was rejected by the City administration in favor of the In-Town BRT.



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CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

No. 00-29, CD1

RESOLUTION

EXHIBIT B

ESTABLISHING A POLICY ON FUNDING THE OPERATING COST OF THE CITY BUS SYSTEM.

WHEREAS, the public transit system of the City and County of Honolulu is comprised of the bus system which provides regularly scheduled, fixed route service and the special transit service which provides paratransit services for persons with disabilities; and

WHEREAS, the City bus system benefits the general welfare by increasing public mobility, lessening traffic congestion by diverting people from cars, reducing emissions and pollutants associated with vehicular travel, and decreasing the demand for limited on- and off-street parking; and

WHEREAS, as an essential municipal service, the City bus system is heavily patronized as evidenced by the following statistics reported by the Department of Transportation Services: actual ridership of 73.1 million in fiscal year 1997-98 and 69.7 million in fiscal year 1998-99 and projected ridership of 70 million in fiscal year 1999-2000; and

WHEREAS, notwithstanding the heavy public use and benefits derived from the City bus system, a large portion of the operating cost of the City bus system is subsidized by nonusers via the City's general and highway funds; and

WHEREAS, a smaller portion is funded by the farebox revenues which have ranged from 20 to 30 percent of the operating cost of the City bus system in recent years; and

WHEREAS, recognizing the monetary demands of the operating cost of the bus system on the City budget, the Council's 1995 Budget Summit recommended that the City Administration and the Council find a means of limiting the subsidy for the bus operations to 70%, or a similar amount, so that the subsidy does not grow unreasonably high; and

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

No. 00-29, CD1

RESOLUTION

WHEREAS, to date, no policy exists on the desired farebox recovery ratio, which is the ratio of bus fare revenues to operating cost, and the desired subsidy levels for the City bus system; and

WHEREAS, the Council finds that such a policy is necessary to guide the City administration and the Council in the proper planning and budgeting for the City bus system which includes:

(1) Establishing a ridership goal for each fiscal year which must be achieved in order to generate the necessary fare revenues for that year;

(2) Encouraging an evaluation of the impact of ridership forecasts and fare revenue projections when considering budgetary decisions affecting service levels; and

(3) Setting a percentage limit on the subsidy for the City bus system;

now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu that the funding of the annual operating cost of the City bus system, excluding special transit service and debt service, be governed by the following policy:

(1) Bus fares shall be adjusted as provided under this policy so that the farebox recovery ratio does not fall below 27 percent nor exceed 33 percent; and

(2) The portion of operating cost remaining after application of paragraph (1) and intergovernmental grants shall be funded with the City's highway funds and general funds;

and

AR00015936

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

No. 00-29, CD1

RESOLUTION

BE IT FURTHER RESOLVED that at the same time that the Mayor submits the annual executive operating and capital budgets to the Council for its consideration, the Mayor submit a report to the Council on: 1) the actual farebox recovery ratio for the previous fiscal year; 2) the estimated ratio for the current fiscal year, and 3) the projected ratio for the budgeted fiscal year; and

BE IT FURTHER RESOLVED that upon the adoption of this Resolution, all subsequent annual executive operating budgets submitted by the Mayor to the Council shall comply with this policy; and

RESOLUTION

BE IT FINALLY RESOLVED that the Clerk is directed to transmit a copy of this Resolution to the Mayor, the Director of Budget and Fiscal Services, the Director of Transportation Services and the Transportation Commission.

INTRODUCED BY:

Duke Bainum

Councilmembers

DATE OF INTRODUCTION:

February 15, 2000

Honolulu, Hawaii

(OCS/011001/mg)

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

I hereby certify that the foregoing RESOLUTION was adopted by the COUNCIL OF THE CITY AND COUNTY OF HONOLULU on the date and by the vote indicated to the right.

ATTEST:

GENEVIEVE G. WONG
City Clerk

JON C. YOSHIMURA
CHAIR AND PRESIDING OFFICER

Dated 1/24/01

ADOPTED MEETING HELD 1/24/01	AYE	NO	A/E
BAINUM	X		
DACHOLA	X		
DeSOTO	X		
FELIX	X		
HOLMES	X		
MANSHO	X		
MIRIKITANI		X	
OKINO	X		
YOSHIMURA	X		
	8	1	0

Reference:

Report No. Trans-33

Resolution No.

00-29
CD1

AR00015937

EXHIBIT C

SECTION 8. The monies described in Section 1 for the fiscal year July 1, 2002 to June 30, 2003 are appropriated as indicated in the following projects and public improvements in the UTILITIES OR OTHER ENTERPRISES function. Nothing in this section shall be construed as restricting the allocation of monies among the work phase appropriations (e.g., planning, design, and construction).

PROJECT NUMBER	FUNCTIONS, PROGRAMS & PROJECTS	WORK PHASE	SOURCE OF FUNDS	TOTAL ALL FUNDS
	UTILITIES OR OTHER ENTERPRISES			
	MASS TRANSIT			
	TRANSPORTATION SERVICES			
2003005	BRT IWILEI TO WAIKIKI ALIGNMENT	4,000,000 L	35,000,000 HI	35,000,000
	Acquire right-of-way, design and construct roadway and system infrastructure improvements to support BRT between Iwilei and Waikiki.	3,000,000 D 28,000,000 C 2,000,000 I		
1978005	BUS ACQUISITION PROGRAM	50,000 I	15,186,000 HI	15,186,000
	Procurement and provision of quality assurance inspection in the manufacture, delivery, and testing of buses.	15,136,000 E		
2001120	BUS BAY IMPROVEMENTS	10,000 L	340,000 HI	340,000
	Secure right-of-way, design and construct bus bay improvements.	50,000 D 260,000 C 20,000 I		
2002501	BUS REHABILITATION	480,000 E	480,000 HI	480,000
	Purchase and install equipment to extend the life and useful service of the bus.			
2001507	BUS ROUTE STUDY	500,000 P	500,000 HI	500,000
	Expand system-wide survey and data collection to include the Primary Urban Center, East Honolulu, and the Windward Oahu areas.			
2001116	BUS STOP ADA ACCESS IMPROVEMENTS	75,000 D	600,000 HI	600,000
	Design and construct ADA improvements at bus stops.	500,000 C 25,000 I		

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

ORDINANCE _____
BILL 20 (2002)

PROJECT NUMBER	FUNCTIONS, PROGRAMS & PROJECTS	WORK PHASE	SOURCE OF FUNDS	TOTAL ALL FUNDS
2003007	BUS STOP SITE IMPROVEMENTS	2,000 L	748,000 HI	748,000
	Plan, design and construct bus stop site improvements,including bus shelters, bus pads, bus bays, landscaping and furniture, at various islandwide locations to include but not limited to, Waialua Town, and various locations in Koolauloa.	50,000 P 336,000 D 360,000 C		
1999300	BUS/PARATRANSIT SUPPORT EQUIPMENT UPGRADE	320,000 E	320,000 HI	320,000
	Purchase bus/paratransit support equipment.			
1993063	HANDI-VAN ACQUISITION PROGRAM	20,000 I	960,000 HI	960,000
	Procure and provide QA inspection in the manufacture, delivery, and testing of new vans.	940,000 E		
1994523	HIGH TECH BUS PASS	2,200,000 E	2,200,000 HI	2,200,000
	Continue and expand installation of "smart card" system.			
2003225	KALIHI KAI TRANSIT CENTER (DILLINGHAM OFF-RAMP)	350,000 P	350,000 HI	350,000
	Conduct environmental studies and planning development for a transit center on the makai side of Dillingham Boulevard, near its intersection with Kamehameha Highway.			
2003043	KAMEHAMEHA HIGHWAY TRANSIT CORRIDOR & TRANSIT CENTERS	50,000 P	50,000 HI	50,000
	Plan transit corridor and transit centers improvements.			
1999317	MIDDLE STREET TRANSIT CENTER	500,000 D	7,150,000 HI	7,150,000
	Design and construct transit center improvements.	5,850,000 C 550,000 I 250,000 R		
2003040	MILILANI TRANSIT CENTER	390,000 C	399,000 HI	399,000
	Construct and inspect transit center improvements.	9,000 I		

AR00015938

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01827R

November 13, 2002

Ms. Michelle Spalding Matson
3931 Gall Street
Honolulu, Hawaii 96815

Dear Ms. Matson:

Subject: Primary Corridor Transportation Project

This responds to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your participation in a September 28, 2000 meeting, your oral testimony at the October 5, 2000 Special Transportation Committee Meeting, your oral testimony at the October 12, 2000 formal Public Hearing, your oral testimony at the October 26, 2000 Special Transportation Committee Meeting, and your oral testimony at the November 14, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS. Part B responds to your oral testimony at the April 20, 2002 public hearing and your May 6, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *Embedded trackwork for an LRT system is estimated to cost substantially more per mile to supply and install than the high-capacity, high-quality paving needed for the BRT transitway (in the range of $8-12 million more per mile). Over approximately 11.8 miles, the cost differential would be $94-142 million. (**Note:** Power Source, states that both LRT and BRT can be powered by new embedded plate technology.)*

   Response: The added cost for the LRT is for the steel tracks and additional utility relocation required. These costs are seperate and in addition to the cost of the traction power system, which for both the BRT and LRT could be touchable embedded-plate technology.

2. *SMA and Zoning Maps absent for Waikiki area (Figures 3.1-5 A-E).*

   Response: The Special Management Area for Waikiki was shown on MIS/DEIS Figure 3.1-8D, Special Manegement Area: Kalihi – University. Zoning meps for Waikiki were shown on MIS/DEIS Figure 3.1-5D, Zoning Map: Kalihi - University.

3. *Transit Center and Transit Station locations and descriptions absent (area covered, structural size and character, combined uses, access impact on surrounding community/communities, etc.) Figures 3.1-6 A-D and 5.15).*

   Response: The transit centers and park-and-rides identified in the FEIS as an independant project, or where the transit center will not be built for 12 years or more, will undergo their own environmental review process to address their related impacts and mitigation measures. At that time, details about each individual transit center's specific location, physical characteristics and operations will be documented.

4. *Although Kapiolani Park was placed in the Register of Historic Places in 1992, it is neither listed nor mapped as a Historic Resource in the DEIS (Kapiolani Park Trust Lands include the Honolulu Zoo and portions of Kapahulu Avenue and Jefferson School). (Figure 3.10-A and Tables 3.10-1 and 5.10-1) However, Kapiolani Park is mapped and listed as an adjacent Parkland Resource in the DEIS (Table 3.11-1 and Figure 3.11-1C).*

   Response: Thank you for the information about Kapiolani Park, which is listed on the State Register of Historic Places. This information is included in the FEIS.

5. *Statistics are based on the 1990 Census.*

   Response: Much of the demographic information (e.g., census tract data) needed for the MIS/DEIS was not available at the time the document was completed. The FEIS includes the most up to date census information available.

6. *Projected high ridership numbers to qualify for federal funding are derived from islandwide demographic totals not specific to Proposed Route.*

   Response: The travel forecasts for the Primary Corridor Transportation Project were developed using travel forecasting procedures developed for the Oahu Metropolitan Forecasting Model Development Project. These procedures simulate the choices made by residents, business, and visitors regarding the nature, number, mode, time-of-day, and geographic orientation of trips that they make on a typical weekday. The procedures have been developed with data obtained in extensive surveys of Oahu households, transit riders, and air passengers. Future year forecasts reflect the population and employment forecasts that have been prepared by DBEDT and the zonal allocations that have been prepared by the City Department of Planning and Permitting.

   The ridership forecasting process uses geographic specific transit networks which simulate the precise alignment of each bus route in the network. These simulation networks were prepared uniquely to reflect the route locations and service frequencies in each of the three alternatives. In accordance with FTA guidelines, in evaluating the performance of the alternatives the same distribution of future population and employment is assumed. Since it does not allow the differences in growth-shaping potential to be included in the analysis, the ridership results for the Refined LPA are likely understated rather than overstated when compared to the No-Build and TSM Alternatives.

7. *The BRT Alternative offers the ability to accommodate even further increases in demand, without major road construction. This could be achieved by using higher capacity BRT vehicles or further increasing the frequency of transit service. (**Note:** also a possibility of converting to new technology embedded plate, entrained LRT referenced above.)*

   Response: The statement referred to in the MIS/DEIS states "The BRT Alternative could accommodate even further increases in travel demand beyond 2025 without major road construction". This statement is assuming the BRT Alternative is already implemented and its facilities constructed and therefore any future travel demand past 2025 can be accommodated without additional roadway construction.

   There is no plan to convert to LRT in the future.

8. *The In-Town BRT stops in the Chinatown Special District, and in the Hawaii Capitol Special District would not have canopies or other elements which would impact views of any important landmarks. The transit stop planned in front of the Duke Kahenamoku Statue on Kalakaua Avenue, also would not have a canopy. Other sensitive areas include the following: Waikiki Special District / Ala Moana Park (and Kapiolani Park / Kalia Road in Fort DeRussy / along Kalakaua Avenue (Note: Kapiolani Park and along Kapahulu Avenue were omitted.)*

   Response: Kapiolani Park has been added as a visually sensitive area in the FEIS.

9. *The archaeological resources, iwi kupuna, uncovered along Kalakaua Avenue in the vicinity of Kapiolani Park Beach, Kuhio Beach, and Kapiolani Park are ignored in the DEIS!*

   Response: An assessment of the archaeological resources in the study area has been conducted for the FEIS and is discussed in Chapter 5. The project is aware of the potential that excavation work may uncover cultural/archaeological resources in certain areas. Therefore, we will employ archaeological monitoring during excavation work at certain locations, such as in Waikiki.

10. *[Parklands and Section 4(f) Evaluation] This section discusses potential impacts to parks and recreational resources in the project area. None of the alternatives would change the character, function or use of any park or recreational resource in the study area, despite that the two build alternatives would use the Aloha Stadium overflow parking lot as a park-and-ride lot. This use of park property would trigger the provisions of Section 4(f) of the U.S. Department of Transportation Act. The TSM and BRT Alternatives would enhance transit access to parks and recreational resources in the project area by improving the level of transit service to parks along the alignments of these alternatives. Vehicular access to Ala Moana Park would be adversely effected under the BRT alternative because of the conversion of two general-purpose lanes to transit lanes on both Ala Moana and Kapiolani Boulevards. (Note: The DEIS again ignores Kapiolani Park.)*

    Response: Kapiolani Park, which includes Honolulu Zoo, was identified on Table 3.11-1 of the MIS/DEIS as a park and recreational resource. A Section 4(f) Evaluation and park impact analysis regarding Kapiolani Park (Honolulu Zoo) was not conducted because it was uncertain at that time whether the traction power supply station (TPSS) would remain at that location. However, as a result of comments received regarding substation locations and further project refinements since the MIS/DEIS was released, the proposed TPSS location originally shown in the Kapiolani Park area will be relocated to a different site Ewa of Kapahulu Avenue. It should be noted that the substations will only be constructed if the technology selected, such as embedded-plate, requires them.

11. *Of the many existing and planned public parks and recreational resources in the project area identified in Section 3.1.1, only one would be affected by the alternatives such as a Section 4(f) Evaluation is required. ... (Note: The DEIS again ignores Kapiolani Park.)*

    Response: See response to comment #10.

12. *Parklands are publicly owned. Subsequent developments would not encroach on parks. Impacts on parklands would be assessed during the environmental review process for each subsequent development. (Note: Again, the DEIS again ignores the Kapiolani Park Trust.)*

    Response: See response to comment #10.

13. *Through the use of electric bus technology, the BRT Alternative would reduce air and noise emissions ... regional air emissions would be less. ... would generally be quieter than conventional diesel buses. However, as with the TSM Alternative, the Regional BRT system would create a noise impact along a section of H-1 that would require noise mitigation. ... Transit center impacts will be separately analyzed in a subsequent phase since there are multiple alternative sites for each location. Under a worst [case] condition, the BRT Alternative could potentially displace up to 12 businesses. Up to two partial displacements are also possible. (Note: This segmentation of the cumulative project violates State law.)*

    Response: Cumulative impacts are addressed in the MIS/DEIS, SDEIS, and FEIS Section 5.13.1. The transit centers that will be constructed whether or not the Refined LPA is constructed will be analyzed as separate projects and have separate environmental documents prepared. The Primary Corridor Transportation Project's EIS addresses the impacts associated with the Kapolei Transit Center, North-South Road Park-and Ride and Aloha Stadium Transit Center.

14. *The additional federal construction funds associated with the TSM alternative would translate into 3,080 person years of jobs created directly and indirectly during project construction. (Note: What is the differential factor describing "new jobs", above, vs. "person years of jobs"?)*

    Response: One of the economic impact measures in the FEIS is the number of person years of jobs generated during construction of the project. The forecasts include direct construction jobs created as well as jobs created through the multiplier effect into the economy of these new jobs. The reason that they are referred to as new jobs is that they would not exist unless there was an influx of "new" federal money from discretionary grants. The reason these jobs are stated as person years of jobs is that they are temporary during the construction period of the project. Permanent jobs (e.g. bus drivers, mechanics, etc.) are also presented in the economic impact section (5.1) of the FEIS.

15. *...the lower cost per new rider represents the more cost-effective alternative. ... the cost per new rider for the TSM Alternative is $9.74, which is greater than the cost per new rider for the BRT Alternative of $7.67... (Note: As determined by an assumption of a full 120 passengers per BRT vehicle and based on 1990 Islandwide population data?)*

    Response: The cost-effectiveness measure utilizes the forecasted transit ridership for the year 2025 for each alternative. Transit ridership forecasts are based on a projected population of 1,083,000 for Oahu in 2025. Ridership forecasts assume that BRT vehicles will have loads of 100 passengers per vehicle during the peek hour in the area between Honolulu Community College and Union Mall but that they will have fewer passengers on board at other locations and at other times.

16. *The Draft Environmental Impact Statement for the proposed primary corridor transportation project is deficient because it is missing key information. It should be returned for completion before it is further considered.*

    Response: It is to be expected that there would be relevant information missing in the MIS/DEIS. The environmental review process allows for agencies and the public to review the MIS/DEIS and to inform the sponsoring agency of any missing information. The FEIS incorporates additional and updated information.

17. *For example, the draft EIS we are provided with has a map showing a circular rapid transit route through Waikiki. No specific transit stops or larger transit centers are on the map. Although in recent meetings, we were provided with more detailed photographs with specific transit stops only. However, three major transit centers are listed on a chart in the draft EIS. But the draft EIS describes the location of only two of what we now have been told are ten major transit centers planned.*

    Response: Regarding the examples given, possible locations of transit stops in Waikiki are shown on MIS/DEIS Figure 2.2-5 and possible locations of transit centers are shown in MIS/DEIS Figure 2.2-3. Refined locations are shown in the corresponding figures in the FEIS.

18. *And what of peripheral parking to serve proposed dual tram rapid transit in Waikiki. Again, no locations to provide parking for outsiders and hotel employees are disclosed. What impact will this have on surrounding communities.*

    Response: Park-and-ride locations which could be used by workers and others destined for Waikiki are shown in Table 4.4-1 of the FEIS.

19. *Further, the draft EIS states that the total cost of the system over 25 years will be "$1,060.3 million." In similar terms, this means the cost of $1 billion. However, in recent meetings, we were told that this is really not true because the cost will only be $800 million. But within 25 years, $200 million will be needed for new equipment. This brings us to what new equipment will be needed within 25 years.*

    Response: In addition to the Regional and In-Town BRT elements, the Refined LPA includes expansion of the present bus fleet and the normal replacement of vehicles within this fleet over time as they reach the end of their useful life (assumed to be 12 years for buses and 15 years for BRT vehicles).

20. *It is disclosed in the draft EIS the dual tram rapid transit dedicated lane electro-plate technology which is demonstrate preferred by the City administration for Honolulu but not yet fully tested in Trieste, Italy or built elsewhere can also be adapted for light-rail transit. In the draft EIS we are told that the contemplated tram rapid transit cannot be entrained or coupled with additional cars but light-rail transit can.*

    Response: The statement that embedded plate technology is being developed by the manufacturers for application on light rail as well as buses is not to say that the City is still considering LRT as a candidate technology for Honolulu. LRT has been rejected as an option.

21. *We are told that the ridership projections extend to the year 2025. If and when more capacity is needed, will we then convert the duel tram rapid transit to light-rail transit with that 200 million. Will we then have a monorail train running through Waikiki and beyond to the Ala Wai Canal river walk and central park restaurants and shops were the golf course is now.*

    Response: There is no plan to convert the BRT to LRT post-2025.

22. *In conclusion, what are the historical integrity and character of Honolulu. We are told that the draft EIS and shown at meetings that there will be a bullet shape double tram slicing past Iolani Palace. This plastic bullet will also be slicing past to the majestic Moana Hotel, the Waikiki shoreline viewplanes and historic Kapiolani Park.*

    Response: The physical appearance of the In-Town BRT vehicle has not been determined. The photo simulations are illustrative only of the type of technologies that have been implemented elsewhere. A vehicle could be designed unique to Honolulu to reflect a consensus vision of what is meant by "Hawaiian Sense of Place". In any event, the operation of vehicles would not affect the character of any historic property along the In-Town BRT alignment.

23. *Is this the administration's interpretation of Hawaiian sense of place that has been so consistently eluding them? Does this mean that if Waikiki can't be Las Vegas at the moment at least Waikiki can mimic the artificial trappings of Las Vegas. Is this what the Japanese tour executive meant when he recently stated, "The most important asset in Waikiki is its beautiful nature, but we really would like to see some other products." To this we say thanks, but no thanks.*

    Response: See response to comment #22.

24. *The City is nearing completion of reducing four traffic lanes to three lanes along Kalakaua Avenue in order to expand the Kuhio Beach recreation area. With the proposed addition of a dedicated rapid transit lane, traffic will be reduced to two lanes, including stopping and loading by commercial and other transportation vehicles. There is foreseeable increased congestion and gridlock consequent to separated transit corridor lanes and platforms consuming major portions of traffic arteries and thoroughfares, even if fewer people are driving cars and more are using rapid transit. The DEIS states that such would result in a reduced level of service for auto traffic within the urban core, but it is silent on how traffic congestion and gridlock will be mitigated with lane closures along Kapiolani Boulevard and within Waikiki.*

    Response: The changes in lane designations identified above have already been completed and were incorporated into the planning for the Refined LPA. The lanes designations for the Refined LPA on Kalakaua Avenue between Saratoga Road and Uluniu Avenue, is three mixed-traffic lanes and a semi-exclusive curb lane shared by the BRT, private buses, and right-turning autos. On Kalakaua Avenue between Uluniu Avenue and Kapahulu Avenue the BRT will operate in mixed traffic so there will be no change from today (i.e. three mixed traffic lanes).

    The forecasts of year 2025 travel demand have changed from the DEIS to the FEIS, but the traffic analyses still indicate that the Refined LPA will not result in more congested traffic operations along the BRT corridors than the TSM or No-Build Alternatives. At the same time, the transit level of service (LOS) will be consistently better with the Refined LPA since it will provide an alternative, less congested mode of transportation to travelers in these corridors. This is especially beneficial in the Waikiki area where all alternatives are projected to result in congestion for motorists on Kuhio Avenue. Traffic operations for motorists on Kalakaua Avenue are projected to be similar between all Alternatives, since the BRT will be in semi-exclusive and mixed-flow lanes.

25. *And what of the peripheral parking to serve the proposed duel tram rapid transit in Waikiki? The PUC-DP draft revision portends "a comprehensive transportation system can be accomplished only through the use and development of parking spaces on the periphery." The Joint Waikiki Task Force report states that peripheral parking locations need to be provided and that passenger service should be allowed to be structured by the employers for hotels and shops. A Waikiki Improvement Association representative recently stated, "The tram will improve access to Waikiki for employees. The priority is to accommodate the Waikiki work force."*

    Response: There are no parking locations proposed or planned as part of the Refined LPA beyond those specifically identified in the FEIS. The only new parking planned as part of this project would be at designated transit centers and park-and-rides, shown in Table 4.4-1 in the

FEIS. The park-and-rides shown are well outside of Waikiki, and could be used by Waikiki workers for accessing the BRT system thereby reducing the number of autos entering and parking in Waikiki.

26. *Sites suggested for Waikiki use have included Kapahulu basayard, Kapahulu Library, Jefferson School and the zoo parking lot. However, Kapahulu Advisory Group members have expressed concerns that a transit center and parking facility would work against uniting the Kapahulu Community, and that the site, which is not centrally located along Kapahulu Avenue, would be mainly used as parking for employees of Waikiki hotels, which have been established.*

   Response: See response to comment #25.

27. *Again, no locations to provide parking for outsiders and hotel employees are disclosed in the DEIS. In Kapahulu, where there is a concerted effort to calm traffic and revitalize the community business district, providing peripheral parking for 38,000 Waikiki hotel employees would have a devastating impact on the community.*

   Response: See response to comment #25.

28. *How can a rapid transit alternative be considered for Waikiki when it is undisclosed in the DEIS what impact transit centers and associated peripheral parking will have on the surrounding communities?*

   Response: There are no transit centers proposed in Waikiki, only eight transit stops. There are no parking locations proposed or planned to support the in-Town portion of the BRT beyond those specifically identified in the FEIS. The only new parking planned as part of this project would be at designated transit centers and park-and-rides.

29. *Specific to the Diamond Head Special District, the DEIS curiously ignores the Diamond Head Historic, Cultural and Scenic District, within which is situated Kapiolani Park Trust lands. Here, a rapid transit stop is planned contiguous to the zoo parking lot. The DEIS mentions nothing about the proposed transit stop in the park and the impact on the historic Trust lands, which are registered on the State register. This is not even mentioned in the DEIS.*

   Response: Thank you for information about Kapiolani Park, which is listed on the State Register of Historic Places, and the Diamond Head Special District. These resources are identified as such in the FEIS. The Kapahulu transit stop, while adjacent to Honolulu Zoo, will not use any of its property. The transit stop will not affect the historic characteristics of Kapiolani Park, and will be consistent with the land use objectives of the Diamond Head Special District. In addition, after conducting a survey of urban street trees, the project will not relocate any tree along Kapahulu Avenue.

30. *In addition, the DEIS states that the embedded plate technology of the rapid transit system requires substations every one-half mile. That is 24 buildings about the size of a small one-story house. Such a rapid transit electric substation is planned on Kapiolani Park Trust lands at the zoo parking lot adjacent to the transit stop. Notably, a court order precludes the use of Kapiolani Park Trust lands from being used for municipal facilities and provides for addition of adjacent lands to the Trust to compensate for ongoing municipal use of such lands for a fire station, while continuing to retain such lands within the Trust.*

   Response: See response to comment #10.

31. *Also of significant absence in the DEIS is the fact that Kapiolani Park was listed on the State of Hawaii Register of Historic Places. Yet, the DEIS discloses that the monkeypod trees at this location are planned to be removed, relocated or cut down for rapid transit purposes.*

   Response: See response to comment #29.

32. *Such significant impacts and the impacts on the surrounding community through which transit riders would commute to park at the zoo parking lot are not addressed in the DEIS. This leads us to believe that the cumulative impact of the larger project has not been addressed, much less disclosed, in the DEIS.*

   Response: The Kapahulu transit stop, while adjacent to Honolulu Zoo, would not use any of its property. The time limits on the metered parking at the zoo would be a deterrent to its use by BRT commuters. Discussion of potential cumulative impacts of the project with other past, present and reasonably foreseeable future actions is provided in Section 5.13 of the FEIS.

33. *In conclusion, the community visioning team emphasizes that traffic calming solutions are required to ensure that Kapahulu Avenue adequately services and complements that area's street-front retail activity and to mitigate against the transformation of the town's main street into an unintended freeway.*

   Response: There is no plan to transform Kapahulu Avenue into an unintended freeway as part of the primary corridor transportation project. To the contrary one of the goals of the project is to encourage people to use public transportation so that the island's communities are more livable and less dominated by private autos.

34. *However, the PUC-DP draft revision advocates urban villages and dedicated high-capacity transit corridors proposed for Date Street, Kapahulu Avenue and Waialae Avenue in the Kaimuki area. Again, none of the indicated high-capacity transit corridor extensions and associated cumulative impacts of the larger project on surrounding communities are addressed in the DEIS. We emphasize that this should be accomplished before the DEIS is given further consideration.*

   Response: Discussion of potential cumulative impacts of the project with other past, present and reasonably foreseeable future actions is provided in Section 5.13 of the FEIS.

35. *A Kaimuki Transit Center is shown in the DEIS, which states that the transit center would provide enhanced local circulation and access to the BRT system. At an OMPO meeting, a clarification was requested for the referenced Kaimuki Transit Center. The response clarified that the facility would be located on Waialae Avenue. Why is the Kaimuki Transit Center designated with no perceivable transit connection or location?*

   Response: The transit hub in Kaimuki would be an on-street transfer point on Koko Head Avenue just makai of Waialae Avenue. It would be a convenient place for local residents to transfer between local circulator routes and routes which connect Kaimuki with other parts of the island.

36. *Again, none of the indicated extensions and associated cumulative impacts of the larger project on the surrounding communities are addressed. We emphasize that this should be accomplished before it is given any further consideration.*

   Response: Discussion of potential cumulative impacts of the project with other past, present and reasonably foreseeable future actions is provided in Section 5.13 of the FEIS.

37. *Why would the City entertain the notion to intrusively impact internal traffic patterns and visitor center support services with a high-capacity transit corridor in Waikiki? Would not this transit experiment be better suited and better placed in the more open areas of Kapolei and Central Oahu – where there could be more efficient use of time-proven technology and more time saved for more people over longer distances to the downtown destination?*

Response: The Refined LPA includes a Regional BRT component and an In-Town BRT component. The Regional BRT will serve Kapolei and Central Oahu. The FEIS Chapter 4 presents the traffic and transportation effects resulting from implementing the Refined LPA. The Refined LPA would not affect visitor center support services and will improve the ambience in Waikiki by significantly reducing the number of diesel buses.

38. *Peripheral parking locations are undisclosed.*

Response: All parking facilities proposed as part of the Refined LPA are identified as park-and-rides or transit centers with parking in Table 4.4-1 in the FEIS.

39. *We understand that BRT Waikiki terminus is proposed for Kapahulu Avenue yet the only available parking is at the Zoo. This park is trust land and it has been ruled by the court that municipal facilities including the power substations of which one is located in the park on the plan would not be a proper use of the park.*

Response: As a result of comments received regarding the substation locations and further project refinements since the MIS/DEIS was released, the traction power supply station originally shown in the Kapiolani Park area was relocated to a location on Kuhio Avenue. (See FEIS Appendix B.) It should be noted that the substations will only be constructed if the embedded plate technology were selected.

Part B – SDEIS Comments

40. *I'm here today to testify in opposition to the in-town portion of the BRT proposal in its entirety.*

Response: Thank you for attending the public hearing and expressing your preference for the project.

41. *This is a very restrictive undertaking. It restricts the free flow of traffic.*

Response: It is not the conversion of lanes that will create the congestion, the congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

42. *It restricts the free enterprise of private carriers by threatening their livelihood.*

Response: The Refined LPA is not designed to serve patrons of private transportation services. Section 5.1.5 of the SDEIS and FEIS provides additional details.

43. *It restricts open discussion of reasonable alternatives for real traffic congestion solutions.*

Response: A full range of transportation alternatives were considered and evaluated with extensive public input. Chapter 2 of the FEIS describes the alternatives that were considered during the course of the project.

44. *And last, but certainly not least, it restricts advancement of the quality of life in our urban area by overburdening the City taxpayers with unwieldy capital and operations costs.*

Response: The Refined LPA has been developed using value engineering to keep costs down so as not to overburden City taxpayers. Also the financing plan uses a phased approach to project implementation based on funding availability so as not to require an increase in City taxes.

45. *What does the In-Town BRT really mean? It means compounded congestion on main thoroughfares by a 60-foot tram every two to four minutes that eat up the traffic lanes.*

Response: See response to comment # 41.

46. *In spite of the City Administration's claims, this will not get cars off the road. It will cause cars to circumnavigate the main traffic thoroughfares into surrounding communities and neighborhoods, increasing noise and pollution in residential areas.*

Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

Even though there will be diversion of some motorists to transit with the Refined LPA, some traffic is likely to shift between parallel major thoroughfares. Tables 4.4-3 and 4.4-6 in the FEIS summarize these shifts. The neighborhood roadways adjacent to BRT corridor are generally discontinuous, making them inconvenient alternatives to the main thoroughfares for use by through traffic. While not forecast to occur, if traffic infiltration does become an issue, DTS has a variety of traffic calming measures that they can use to mitigate these types of problems.

47. *The SDEIS states BRT would result in over 18 percent work trips on transit and 14.7 percent with no-build. That's only a 3.3 percent increase in work trips at a cost of nearly one billion in 1998 dollars, not including debt service.*

Response: The cost of building new roads and widening existing roads to accommodate these motorists if they weren't diverted to transit would be much more costly.

48. *And the operations and maintenance is a whopping 71 percent subsidized by City taxpayers to supplement the fares taken in.*

Response: City Council members have consistently recognized the need to keep transit fares reasonable through a subsidy. In 2001 the City Council adopted Resolution 00-28, CD-1, that states in part, that the farebox recovery ratio will not fall below 27 percent nor exceed 33 percent. The balance is met by a General Fund subsidy.

49. *Yet Councilmember Beinum says in regards to – City Council, last year, places a 33 percent ceiling on any transit subsidy.*

Response: See response to comment #48.

50. *Together this is going to cost the City texpeyers 83 million in capital cost and 133 million in operations subsidy, with in-town feres only covering four percent of the operating costs.*

Response: This is incorrect. Debt service payments on GO bonds for BRT related capital costs will average $4.4 million per year. Average annual operating and maintenance costs for the BRT (i.e. costs in addition to the No-Build) would be $7.2 million in 2007 and $21.1 million in 2016. These are in YOE dollars. The fares will cover 27 percent of the BRT O&M costs, not 4 percent.

51. *This capital and operating cost totals $216 million in City taxpayer dollars paid annually as of 2010, with only three minutes saved for Downtown to Waikiki.*

Response: The average annual increase in total City contribution over the No-Build Alternative for the period 2003 to 2016 would be $30.2 million in YOE dollars.

52. *Also, what the BRT really means is land development and higher property taxes along transit corridors, forcing small businesses out of once affordable business districts. The SDEIS is not shy about exposing this objective as it states repeatedly that more desirable land use and development patterns in coordination with specific developers are in store for our now stable urban communities.*

Response: By itself, the In-Town BRT would have little influence on land use development in the PUC. In order for land use objectives identified in the Draft Update of the PUC DP to materialize, certain policies or actions would have to be implemented, such as changes in zoning regulations, land consolidations, tax incentives, changes in market conditions, etc. The value added by the In-Town BRT is that it would support transit-oriented development, such as mixed-use higher density land uses. Regardless of how the PUC DP process concludes, the PUC will continue to be highly populated and contain most of the employment on the island. These characteristics of the PUC necessitate a good public transportation system now and in the future.

53. *Construction jobs are temporary, but the impact on our streets, in our neighborhoods, and on our livelihoods will be here to stay for several generations if the In-Town BRT is allowed to roll forward on the fast track, driven right at us by the big bucks boys. This is the wrong system for Honolulu's constrained urban area. The solution to gridlock is over the longest distance to serve the greatest number of people in the least amount of time.*

Response: Comment noted. It is a statement of opinion. Besides providing temporary construction jobs, permanent jobs will result from the BRT project because of the need for additional drivers, mechanics, etc. Among all of the alternatives considered, the Refined LPA will serve the greatest number of Oahu residents at a reasonable cost.

54. *Lack of correlation to pending Primary Urban Center development plan revisions.*

Response: Discussion of project consistency with the Draft Update of the Primary Urban Center Development Plan is provided in Section 5.1 in both the MIS/DEIS and the FEIS.

55. *Absence of traffic testing for cumulative traffic impacts of the proposed In-Town BRT*

Response: The way the Refined LPA will offset the conversion of general purpose lanes to transit priority use is by attracting enough people out of the cars to reduce the number of autos on the road. The OMPO travel demand forecasting models used on this project are among the most sophisticated in the world. These models have indicated that the types of upgrades in transit service proposed with the Refined LPA will be successful in attracting enough people out of their autos to offset the proposed loss of lanes to general purpose traffic. The diversion of people from auto to transit will not happen overnight and could not happen during a "test" period involving the coning off of lanes since the features of the BRT system would not be in place and it would not be perceived as a permanent alternative that gives people confidence that they have an option once they give up their car. Coning off lanes in the absence of the BRT in place proves nothing that isn't known already.

56. *Absence of information and location of impacts on two significant historic sites and landscapes.*

Response: The potential impacts to historic sites are discussed in Section 5.10 in the MIS/DEIS, SDEIS, and FEIS.

57. *Incomplete community participation and questionable support for specific components, facilities, and routes for the In-Town BRT Waikiki terminus.*

Response: The BRT project's community involvement activities began in 1998 with the Trans 2K meetings and have continued throughout project development. Community participation activities have included five Trans 2K meetings, working group meetings, and hundreds of neighborhood board, city council, organization, etc. meetings where the project has been discussed.

58. *Public and private circulator transportation, service and delivery operations impacts.*

Response: There will be transportation impacts as a result of the BRT, including parking and loading impacts, as discussed in Chapter 4. Mitigation will be considered on a case by case basis for areas of concentrated parking and loading impacts. Loading areas in Waikiki and other commercial areas along the In-Town BRT corridor will still be available at designated hours. In some cases in Waikiki, new pull out bays will be constructed to accommodate passenger vehicle loading and unloading on Kuhio Avenue.

59. *Infrastructure and utility impacts*

Response: Section 5.12 presents the Construction Activity Impacts to Infrastructure and Utilities.

When relocation or modifications of existing active utilities are necessary, efforts will be made to keep them in service during construction.

60. *Absence of defined and proven technology*

Response: The City will be proceeding with hybrid-electric vehicles on the In-Town BRT. These vehicles have been proven in revenue service and are commercially available. In 2008 a decision will be made whether to proceed with embedded-plate technology, which by then should have had enough time being in revenue service in other cities to be considered service proven. If it hasn't proven itself the City has the option of continuing with hybrid-electric vehicles.

61. *Absence of cumulative capital costs, operations subsidies and debt service as projected beyond 1998 dollars.*

Response: Capital costs, operating subsidies, and debt service are shown in Year of Expenditure dollars throughout the financial narrative and tables. Year of Expenditure dollars are calculated to include a projected rate of inflation, using a combination of national and state trends.

62. *Absence of the defined City taxpayer burden to carry the non-federal cost of the proposed project*

Response: The local costs are identified by type, year, Year of Expenditure amount, and proposed revenue source.

63. *Absence of ancillary facilities descriptions, locations, linkages and impacts on surrounding communities; and*

Response: Comment noted. It is a statement of opinion. The MIS/DEIS, SDEIS, and FEIS present the benefits and impacts associated with the BRT project, including ancillary facilities.

64. *Compromised present quality of life and "Hawaiian Sense of Place", e.g. adverse impact of dedicated / embedded rapid transit infrastructure, equipment, utilities and facilities on scenic viewplanes and landscapes*

Response: No project element, including transit centers and stops, traction power supply stations (TPSS), and ramps, are expected to adversely affect important or scenic viewplanes. Transit stops within historic and special districts will be carefully planned and designed to not impact the sensitive viewplanes, landscapes or other important characteristics of these districts.

65. *Further, there is a question of incomplete expansion and improvement of the present Transportation Service Management program to meet its fullest In-Town potential, including maximizing the hub-and-spoke circulator system, express vehicles, and public and private ridership incentives.*

Response: The phasing for the In-Town BRT will involve a transition over time from the existing bus system to a hub-and-spoke system that complements the BRT.

66. *Finally, it appears that the larger objective of providing mass transit to serve the greatest number of people over the longest distance in the least amount of time remains to be comprehensively addressed.*

Response: The FEIS clearly and comprehensively addresses how the Refined LPA within given financial constraints will serve the greatest number of people over the longest distances in the least amount of time.

67. *The SDEIS states that to give transit the priority necessary to make it an attractive alternative to the automobile, some lanes along the proposed In-Town BRT alignment will need to be converted from general-purpose lanes to transit only lanes, which will ultimately result in reduced number of lanes for general purpose traffic (see 2-19).*

Response: This is a correct statement.

68. *The SDEIS further states that major regional roadways would still experience traffic bottlenecks in 2025, and only the BRT could provide a non-congested travel mode through key intersections in*

the Urban Core that still would be at or near capacity, because the In-Town BRT would be buffered from traffic delays, which would result in additional reduced level-of-service for automobile traffic within the Urban Core (see 2-19 and S-8).

Response: The FEIS corrects this statement so that it is clear that it is not the conversion of lanes that will create the congestion, the congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

69. *Thus, the In-Town BRT becomes a major part of the problem, not the solution. Prioritization of the BRT at congested intersections would mean stopping all other traffic at the intersections it approaches, in effect compounding congestion in the urban core.*

Response: The potential for the BRT vehicles to extend the green phase will only be implemented at locations where it will not significantly impact cross street traffic.

70. *This, coupled with the integration of exclusive and semi-exclusive transit lanes and median loading platforms, will for the most part preclude normal traffic from using the main arteries of Honolulu due.*

Response: See response to comment #68.

71. *Therefore, because of such lane restrictions and delays, the City anticipates that motorists will be forced out of their cars onto the In-Town BRT, when in fact, motorists will choose to take alternate routes through surrounding communities and neighborhoods instead.*

Response: See response to comment #68.

72. *Indeed, the SDEIS discloses that during construction of In-Town BRT transit lanes within existing streets, a public information program will disseminate information on detours and recommended alternative routes in order to minimize public inconvenience (see S-12 and S-15). Certainly, this information will be helpful to motorists in knowing which surrounding community and neighborhood streets are most accessible.*

Response: We concur and will work with not only the immediate neighborhoods surrounding the construction area, but with local media to alert the general public of construction activities, recommended detours, etc.

73. *However, the SDEIS does not address the significant impacts on the surrounding areas resulting first from cumulative construction impacts or subsequently from restricted traffic lanes and the In-Town BRT's prioritization over vehicular traffic.*

Response: The MIS/DEIS, SDEIS, and FEIS, Chapter 4 present the traffic and transportation effects associated with implementing the BRT. Chapter 5, Section 5.12 presents the construction impacts and Section 5.13 presents the cumulative effects.

74. *Further, the City has conducted no comprehensive traffic count studies for the major thoroughfares proposed to be converted to BRT corridors.*

Response: Traffic impact analyses have been performed for all of the streets along which the In-Town BRT will operate. The findings are discussed in detail in Chapter 4.

75. *And the City has ignored concerns reflected in measures brought before the City Council and requests at public meetings to test the impacts of such lane closures on Honolulu's urban streets.*

Response: See response to comment #55.

76. *How would neighborhoods surrounding BRT corridors be buffered from traffic overflow and congestion resulting from the buffered BRT and vehicular level-of-service service delays?*

Response: See response to comment #46.

77. *How would ensuing traffic congestion otherwise be mitigated in neighborhoods surrounding BRT corridors?*

Response: See response to comment #46.

78. *Prior to seeking the funds to construct the proposed In-Town BRT, the City must determine the significant physical impact this will have on the areas, communities and neighborhoods, surrounding the In-Town BRT corridors.*

Response: This was done in the MIS/DEIS, SDEIS, and FEIS.

79. *By implementing a simple two-to-three-month trial period of coning off the In-Town BRT lanes proposed to be closed or limited to through traffic, and ramping up existing express and mauka/makai bus service with a mass transit publicity campaign, the effects of any ridership increase and traffic congestion impacts will become obvious. WHY HAS THE CITY ADMINISTRATION REPEATEDLY REFUSED TO IMPLEMENT THIS TRIAL PROGRAM, AND WHAT TRAFFIC IMPACTS ARE THEY HESITANT TO DISCLOSE? By avoidance of this comparatively simple and cost-effective trial measure, the City administration appears to be concealing what could become Honolulu's worst traffic nightmare – the significant negative impacts of the In-Town BRT.*

Response: The way the Refined LPA will offset the conversion of general purpose lanes to transit priority use is by attracting enough people out of the cars to reduce the number of autos on the road. The OMPO travel demand forecasting models used on this project are among the most sophisticated in the world. These models have indicated that the types of upgrades in transit service proposed with the Refined LPA will be successful in attracting enough people out of their autos to offset the proposed loss of lanes to general purpose traffic. The diversion of people from auto to transit will not happen overnight and could not happen during a "test" period involving the coning off of lanes since the features of the BRT system would not be in place and it would not be perceived as a permanent alternative that gives people confidence that they have an option once they give up their car. Coning off lanes in the absence of the BRT in place proves nothing that isn't known already.

80. *The SDEIS states that the last detailed boarding study was conducted in 1991; that in February, 2000, DBEDT revised its 2025 general population forecast for Oahu downward by 5%; that the BRT would improve the person-carrying ability within the Urban Core by an average of 11% over the no-build alternative; that such capacity would be only slightly greater than the demand; and that the demand would amount to only a 3.3% increase in work trips (see 3-11 and S-8). Thus*

there would be a maximum capacity increase of 7.7% for non-work trips. But these trips are not defined and the SDEIS ignores the fact that both the Urban Core resident population and visitor count have continued to decrease over the past ten years.

Response: The economy has been weak in Honolulu for the past decade. This is not forecast to last forever. The planning horizon for the FEIS is the year 2025. The economy is expected to recover between now and then and the growth in population and jobs forecast are expected to be realized.

81. *Indeed, the majority of Honolulu citizens will not give up their automobiles to hop on the In-Town BRT simply to go from point A to point B. Many have two or even three jobs to maintain costly living expenses in Honolulu. Many have active families that require transportation to various activities, such as after-school soccer and baseball in the year-round mild climate. Many transport bulk purchases both during and after work hours from popular warehouse stores. And many of these tasks are required to be accomplished in between the others.*

Response: The BRT will give Oahu residents an alternative to driving their cars, but is not intended to replace the automobile. It only takes a small percentage of auto drivers to divert to transit to make a significant difference.

82. *In addition, would the City choose to suffocate private enterprise by attempting to displace non-subsidized private sector passenger transportation with the City subsidized In-Town BRT?*

Response: The Refined LPA is not expected to drive any private carriers out of business. The service the In-Town BRT will provide is oriented to residents and workers in the urban core not to tourists, which is the market served by private carriers. The BRT will not take business away from tour bus and shuttle operators, since it will not pick-up tourists at their hotels and take them on various scenic tours. It will not take them to-and-from the Airport. It will not take them to-and-from their hotels and the Convention Center. It will not pick them up at the cruise ship terminal and carry them and their luggage directly to their hotels. And unlike the private shuttles it is not designed to operate in a loop that only goes between Waikiki hotels and the various tourist sites of interest. Some tourists may end up using BRT since it does serve some of the same destinations that the tourists want to go to, but the In-Town BRT goes to these places because most of these are also major employment sites or sites where local residents go to as well. The number of tourists expected to use the public transit system with the Refined LPA is forecast to be no greater proportionally than today (i.e. around 10-15 percent of total daily boardings).

83. *Public-private partnerships can be successfully forged to eliminate, rather than create, additional transportation subsidy burdens on the local taxpayer, thus benefiting the public interest as well as promoting the welfare of private enterprise and the local economy.*

Response: Where it is possible, and cost-effective to do so the City intends to contract with private passenger carriers to provide some of the service in the hub-and-spoke network.

84. *Contrary to the City's claims, the BRT will not provide an "attractive alternative" to the automobile. It will provoke a forced alternative to the automobile – one that would be as roundly opposed as the State's recently quickly-felled traffic camera citation program, which is now going to cost the State taxpayers millions of dollars to undo.*

Response: Comment noted. It is a statement of opinion. No one will be forced to ride the BRT.

85. *The SDEIS states that the In-Town BRT vehicles would operate at-grade in exclusive transit lanes along major arterial streets (see Table 2.2-4). In other locations, the In-Town BRT system would operate either in semi-exclusive lanes (used by transportation carriers or vehicles making turns) or in mixed traffic. Along about 38% of its length, the In-Town BRT would run in transit lanes in the median of existing arterial roads (e.g., sections of Kapiolani and Dillingham Boulevards). Along 29% of the alignment, the system would run along the curb in semi-exclusive lanes. Semi-exclusive lanes would be shared with right-turning vehicles, and in the case of Waikiki, with other buses (public and private) and trolleys. For the remaining one-third of the alignment the BRT would operate in mixed traffic (see 2-11).*

Response: These are quotes from the SDEIS. They do not require a response.

86. *Many recent failing water mains and sewer lines have already demonstrated the serious impact of providing only one or two lanes available to through traffic. The In-Town BRT would be intensifying this impact by taking the following:*

Downtown
- *Dillingham – 2 center lanes*
- *Iwilei – 2 lanes*
- *North King – 2 lanes*
- *Hotel – 2 lanes*
- *Bishop – 1 curb lane, makai*
- *Aloha Tower Drive – 1 curb lane, makai*
- *Alakea – 1 curb lane, mauka*

Kakaako Makai
- *Nimitz – undefined*
- *Ala Moana – undefined*
- *Channel – undefined*
- *Ilalo – undefined*
- *Ward – undefined*
- *Auahi – undefined*

Kekeeko Mauka
- *Halekauwila – 1 lane*
- *South Street – 2 lanes*
- *Pohukaina – 2 lanes*
- *Auahi – 2 lanes*
- *Queen – 2 lanes*

- *Richards – 1 lane*
- *South King – 1 lane*
- *Pensacola – 2 curb lanes, Ewa side*
- *Kapiolani*
  - *a) 2 center lanes to Atkinson*
  - *b) transition from 2 center to 2 curb lanes in mixed traffic to Kalakaua*
  - *c) 2 curb lanes to Isenberg*
  - *d) transition from 2 curb to 2 center lanes in mixed traffic to University*

- *University – 2 exclusive center lanes to South King*
- *South King to UH – 1 semi-exclusive curb lane*
- *UH to Kapiolani – 1 exclusive center lane*

Response: Further refinements have been made to the In-Town BRT to reduce traffic impacts since publication of the SDEIS. It is not the conversion of lanes however that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

87. *UH Manoa*
- *Richards – 1 lane*
- *South King – 1 lane*
- *Pensacola – 2 curb lanes, Ewa side*
- *Kapiolani*
  - *a) 2 center lanes to Atkinson*
  - *b) transition from 2 center to 2 curb lanes in mixed traffic to Kalakaua*
  - *c) 2 curb lanes to Isenberg*
  - *d) transition from 2 curb to 2 center lanes in mixed traffic to University*
- *University – 2 exclusive center lanes to South King*
- *South King to UH – 1 semi-exclusive curb lane*
- *UH to Kapiolani – 1 exclusive center lane*

Response: See response to comment #86.

88. *Waikiki Loop*
- *Ala Moana -*
  - *a) 1 semi-exclusive makai curb lane to Kalia*
  - *b) 1 exclusive mauka center lane to Hobron, 1 semi-exclusive mauka curb lane to Kalia*
- *Kalia – add 2 lanes to Saratoga*
- *Saratoga – 2 lanes*
- *Kalakaua – split 1-way couplet*
- *Kalakaua to Kapahulu – 1 semi-exclusive makai curb lane*
- *Kapahulu to Kuhio – 1 semi-exclusive curb lane at Waikiki Terminus – Kapiolani Park Transit Stop*
- *Kuhio to Saratoga – 1 semi-exclusive mauka curb lane*

Response: See response to comment #86.

89. *To compound this conundrum, the City administration proposes to raid the City's Sewer Fund to balance the City's budget to ultimately fund the first $35 million of the Waikiki-to-Downtown segment of the In-Town BRT (see Exhibit C, attached). However, if the Sewer Fund is raided for the first $35 million this year, how will the remaining 62% work trips in automobiles (see S-8) get through the torn-up streets with the BRT consuming traffic lanes as the 100-year-old sewer lines continue to break? The traffic will not magically disappear, as the City administration would have us believe. Again, it will simply be rerouted to a greater magnitude via ripple effect into and through surrounding neighborhoods and communities.*

Response: The City Council has approved the budget for funding the first branch of the In-Town BRT. In the City's representative form of government it is the Council's decision as to how public funds are spent each year.

90. *Further, the SDEIS states that the construction implementation schedule would focus construction-phase impacts in one area at a time by geographically distributing the work at each phase of construction, with development of the In-Town BRT system between 2002 and 2006, with the initial fleet of In-Town BRT vehicles being ordered, manufactured and delivered in 2003 and 2004, and with testing and start-up occurring in 2005 (see 2-25 and 28). However, the SDEIS also states that a decision on the In-Town operating system technology "may" be made in another year, as existing technologies either do not satisfactorily meet the City's expectations and specifications or have not advanced to a state where they are considered service proven. As no decision has been made on an appropriate technology, how can capital and operating costs be projected with any reliability?*

Response: The phasing plan as outlined in the FEIS calls for the use of hybrid-electric buses initially along the In-Town BRT, with a decision to convert to embedded-plate technology (EPT) made in 2008, if EPT is service proven by then.

91. *In addition, the SDEIS states that construction schedules would be phased according to the availability of funds. Therefore, the construction schedule would be flexible and could be delayed according to fiscal constraints (see S-16). In viewing the above wavering revelations en toto, it does not appear that the City has an efficient and effective plan to implement this project as stated, or to even mitigate its impacts on the Honolulu urban community. With deficiencies of such magnitude, it can be concluded that traffic solutions for Honolulu require further study for more appropriate and effective alternatives.*

Response: The MIS/DEIS, SDEIS, and FEIS Chapter 2 present the project's implementation plan, and Chapter 6 presents the financing plan. The environmental documents present the traffic and transportation impacts in Chapter 4 and environmental impacts in Chapter 5. No further study is needed.

92. *Notably, the SDEIS states that the BRT would be superior to the TSM alternative in terms of regional mobility, and that greater mobility would be provided by the BRT because of increases in transit and HOV use (see S-8). Thus, the question arises as to why the In-Town BRT is proposed to consume lane space in the urban core when it could be placed in more efficient use over longer distances in the regional Ewa-Downtown application, and when greater flexibility and mobility can be provided by smaller high-occupancy vehicles with a greater number of routes and more convenient stops in the urban core in lieu of fixed 130-person capacity trams on dedicated lanes in a confined area?*

Response: Buses operating as collectors will pick-up people in the less dense outlying areas and bring them to transit hubs where they can transfer to longer distance express buses that benefit from using the priority lanes on H-1 and In-town on designated arterials. It is only logical to employ the priority lane concept along the sections of the corridor where the most people will be riding the system in the same direction at the same time and that is in the urban core not in the outlying areas.

The Regional BRT includes A.M. and P.M. zipper lanes along H-1that will benefit both bus passengers and HOV occupants. In-Town bus passengers will benefit from the BRT priority lanes and HOV occupants will benefit from the reduced congestion overall with the Refined LPA, and more specifically from SDOT projects that will increase the capacity of H-1 and Nimitz Highway by the addition of a contra-flow HOV lane.

93. *The In-Town BRT portends surging land re-development and higher property taxes along transit corridors, forcing small businesses out of once affordable business districts. The SDEIS is not shy about exposing this objective, as it states repeatedly that more desirable land use and development patterns in coordination with specific developers are in store for Honolulu's established urban communities. In fact, the SDEIS identifies one criterion for selection of a new transit technology as being a specific alignment to "evoke the desired land use response from land developers" (see 2-19). Thus, the SDEIS demonstrates little to no concern for the future welfare of the small businesses, patrons, and residents of the areas proposed to be impacted by the In-Town BRT transit corridors, and indeed, is ultimately writing them out of the equation in favor of increased development and density – supporting not the community, but the In-Town BRT.*

Response: The potential for an area to change depends upon many factors of which transportation accessibility is just one factor. Land use policies, zoning, parcel size and availability, availability and condition of utilities, and market demand are other factors. As the Refined LPA is implemented the City needs to establish land use policies and incentives that encourage the retention of small businesses where it is deemed important to do so and to focus development interest on designated redevelopment areas and sites.

94. *According to the SDEIS, the proposed In-Town BRT will necessitate 17 businesses to relocate, along with up to 47 partial business displacements. Fair market compensation for land, buildings, and uses would be provided to property owners directly affected by right-of-way requirements, and affected businesses would be encouraged to plan moves in advance so that relocation would occur with minimal delays and inconvenience (see S-10 and S-12). Further, land value increases generated by development rights will cause property taxes to skyrocket, and the remaining small businesses will be unable to survive in the redevelopment area. Thus, for example, the BRT corridor along Dillingham Boulevard would incite removal of small businesses, consolidation of lots, and construction of highest and best use buildings, both in value and density – serving not the community, but the developer.*

Response: See response to comment #93.

95. *The SDEIS states that where on-street parking is removed to permit BRT transit lanes, new neighborhood parking facilities would be considered to replace on-street parking, but only if they served a community purpose (see S-8). Thus, many residents in single-family dwellings along BRT transit corridors, including University Avenue, would be without adequate parking for their homes unless this becomes a larger community need. Once determined as a community need in this established residential area, one or more residential lots in a central location would be required to be taken by the City's power of eminent domain to build a multi-level parking garage in order to fulfill the public purpose of replacing the public parking that was lost to the BRT. Again, this appears to be contrary to the welfare of the established community.*

Response: In urban communities such as Downtown, McCully/Moiliili, and Ala Moana trade-offs need to be made on the best use of the limited public rights-of-way along arterial streets. In the case of University Avenue far more people will benefit from increasing the people carrying ability

of this street then will be impacted by the removal of on-street parking. There are 78 on-street parking spaces on University Avenue that will be removed to enable over 6,000 passengers a day a less congested route. Whether replacement parking is needed is up to the community. Representatives from the affected Neighborhood Board indicated, at least initially, that they did not think that replacement parking would be required by the community if it involved the loss of any residences, businesses, or parks. Other approaches that do not require the displacement of residences, businesses, or parks, (e.g. using diagonal parking on some local streets; shared use of commercial or institutional parking at night by residents, etc.) can also be explored if the community wants replacement parking.

96. *Here also, the SDEIS lists another criterion that the selected transit technology must be flexible enough in order to not pre-empt parades or other activities along the alignment. Yet the proposal does nothing to ensure that the In-Town BRT does not disrupt businesses and residences as it bisects the communities and business districts it passes through every 2 to 4 minutes via dedicated transit corridors. In fact, the SDEIS aggressively proposes to remove 912 parking spaces and 725 feet of curbside loading space to provide for dedicated curbside BRT lanes (see 4-25 and 4-26).*

Response: BRT operation will be much like that of a bus, and bus service is currently provided on virtually all streets proposed for use by the BRT. Therefore, no impact on neighborhoods and businesses is expected from the BRT operation, beyond those disclosed in the EIS. BRT operation will not adversely bisect communities and business districts, as demonstrated by the Hotel Street bus mall operations in the downtown/Chinatown area.

On-street parking and loading zone impacts have been reduced since the MIS/DEIS. There will be some parking and loading space impacts as a result of the BRT, as discussed in Sections 4.3 and 4.4 of the FEIS. Mitigation will be considered on a case by case basis for areas of concentrated parking and loading impacts. Freight loading areas in Waikiki and other commercial areas along the In-Town BRT corridor will still be available at the currently designated hours. In some cases in Waikiki, new pull out bays will also be constructed to accommodate commercial vehicle loading and unloading (e.g. on Kuhio Avenue).

97. *This impact would be greatest in commercial business and Waikiki resort zones within the Urban Core, where loading areas are vital and must be accessible in order to ensure efficient and timely delivery of goods and services. However, the SDEIS fails to address established loading requirements of the private trucking and delivery industry in Waikiki and other commercial areas along the In-Town BRT corridors. Further, the SDEIS fails to address the cumulative economic impacts of the In-Town BRT on surrounding businesses and resorts, and private delivery and non-subsidized passenger transportation services when one lane is removed from Bishop and Alakea Streets and Kalakaua, Kuhio and Kapahulu Avenues, and when two lanes are removed from Kapiolani and Dillingham Boulevards and University Avenue.*

Response: Impacts to passenger and freight loading zones have been reduced since publication of the MIS/DEIS. Freight loading areas in Waikiki and other commercial areas along the In-Town BRT corridor will still be available at the currently designated hours. No lanes will be converted for BRT use on Bishop Street, Alakea Street, or Kapahulu Avenue. Private buses will share the curbside BRT priority lanes on Kalakaua and Kuhio Avenues. Measures have been taken on Dillingham Boulevard (widening, turnouts, and use of alternate access) to accommodate freight delivery.

98. *The BRT SDEIS makes no mention that either Kapiolani Park or Irwin Memorial Park are listed on the Hawaii State Register of Historic Places and eligible for the National Register of Historic Places (see Table 5.10-1 on 5-45). Yet, the BRT SDEIS describes the BRT 60-foot trams running curbside to these sites.*

Response: Kapiolani Park is identified as an historic property in the FEIS because a transit stop will be located adjacent to the park. The transit stop will be constructed within the Kapahulu Avenue right-of-way, and no park property will be used. In response to concerns expressed at a meeting with representatives of the Kapiolani Park Preservation Society the location of the BRT stop on Kapahulu has been shifted further mauka. (See Appendix B Drawing No. I-35).

Irwin Memorial Park will not be affected by the project since the BRT will operate in mixed traffic using existing streets and the existing bus stops near the Maritime Museum at Aloha Tower Marketplace.

99. *Further, Kapiolani Park is a known habitat for the white tern, listed as endangered by the State of Hawaii and a federally protected species under the Migratory Treaty Bird Act (see S-11).*

Response: This information about the white tern is disclosed in Section 5.7 of the FEIS, which also states the results of interagency coordination that has been conducted with the State Department of Land and Natural Resources, Division of Forestry and Wildlife (DLNR-DOFAW) and the U.S. Fish and Wildlife Services (USFWS).

100. *There is a serious question as to why the SDEIS does not recognize and acknowledge Kapiolani Park, which is nearly 200 acres, as a significant site contiguous to the proposed In-Town BRT corridor. The SDEIS states that the In-Town BRT terminus is at an undefined transit stop on the Koko Head side of Kapahulu Avenue between Kalakaua and Kuhio Avenues (see 2-16 through 19 and 3-3 through 3-7). This places the BRT Waikiki turnaround transit stop, with attendant 8-ft. wide, 160-ft. long raised loading platform, ADA ramps and railings, and power supply sub-station upon and within the Kapiolani Park Trust lands on Kalakaua Avenue and fronting the Honolulu Zoo (see S-1, 2-12 and sheet TRM 14 dated 7-24-00, Exhibit A as attached). In addition to Kapiolani Park being listed as a Registered Historic Site, the Court has ruled that municipal facilities are not an appropriate use of Kapiolani Park Trust lands (see SP No. 89-0015, Conclusions of Law and Order, 1991).*

Response: The In-Town BRT stop will not use any part of Kapiolani Park. The transit stop will be totally within the Kapahulu Avenue right-of-way, including provisions for ADA access. The TPSS will be located in an empty lot on the Ewa-makai corner of Kapahulu Avenue and Kuhio Avenue. It will not be placed on park property.

In response to concerns expressed at a meeting with representatives of the Kapiolani Park Preservation Society the location of the BRT stop on Kapahulu has been shifted further mauka. (See Appendix B Drawing No. I-35).

101. *In view of the above, the location of the proposed BRT route's attendant municipal facilities would therefore appear to be a violation of the historic trust provisions, as well as a significant negative impact on the historic landscape and viewplanes of this historic site.*

Response: See response to comment #100.

102. *While the City claims that only shelter and street furniture improvements are planned to be constructed at the Kapiolani Park terminus (see 2-18), there is additional concern that the cumulative impact of the municipal facility components of the In-Town BRT transit system will evolve into much more than a mere bus stop at this terminus. Indeed, the SDEIS states that a) certain local routes would be converted into circulators to feed the In-Town BRT system and new circulator routes would provide frequent service from the transit stop on the Koko Head side of Waikiki (see 2-5); and b) project elements such as ...transit stops ... provide urban design opportunities to improve existing landscapes with cohesively designed architectural elements, landscaping, street furniture, street trees and lighting (see S-10). Thus, Kapiolani Park is planned to be the access point from East Honolulu to the BRT system's Waikiki-to-Downtown route, and there is additional concern that the Design Opportunities the City administration has planned for the proposed BRT project could most assuredly impact the historic landscape of Kapiolani Park as well with expanded parking and transit center amenities to service East Honolulu access to the In-Town BRT system at this Waikiki terminus (see 2-18).*

Response: The Kapahulu BRT stop will be an on-street transfer point for some circulator bus routes not an off-street transit center. To serve circulator routes the local bus stop at curbside on the Ewa side of Kapahulu Avenue at Cartwright Road will be relocated to Lemon Road. The BRT stop will be across the street at curbside on the Koko Head side of Kapahulu Avenue. Transferring passengers will use the crosswalk at Lemon Road to connect between the routes. There is sufficient right-of way on both sides of Kapahulu Avenue to accommodate the stops without interfering with pedestrian flows or impacting Kapiolani Park. Design of the BRT stop will take into account the historic landscape of Kapiolani Park.

What is proposed is not an off-street transit center or a park-and-ride. In fact the services which will be added should make Kapiolani Park even more accessible by transit and help reduce the auto and parking congestion that exists in the area today.

103. *Along with ignoring that the selected Waikiki transit terminus is a historic site, the SDEIS also does not address the visual impact of the 60-foot long, 15-feet-high double tram cars impacting the significant historic park, Diamond Head and shoreline viewplanes every 3 minutes, nor the structural impact of the raised and elongated loading platform and power supply station within the monkeypod trees and open space of this historic landscape along Kapahulu Avenue. From this it can be easily determined that there is much about the Waikiki/Kapahulu segment of the In-Town BRT proposal that remains to be disclosed. There are many more unanswered questions about the impact of such a plan on this historic site, including but not limited to the question of what is to become of this significant area if this East Honolulu public transportation terminus is implemented?*

Response: The In-Town BRT transit stop near Kapiolani Park will require special design treatment, similar to other proposed transit stops in or near Chinatown, the Capitol District, Thomas Square and other important visual and historic locales.

Visual impact analysis is not appropriate for vehicles, including the In-Town BRT vehicles, which are essentially more environmentally friendly buses. For your information, the height of the BRT vehicles would be about ten and a half feet, not 15 feet.

As described in response to comment #102, the TPSS will not be located in Kapiolani Park.

The Kapahulu Avenue Transit Stop will not be used as a transit center. Although transfers will occur, they will be conducted in the same manner as bus transfers are conducted today at many on street transfer locations.

104. *Further, while transit stops, centers and transfer points are shown for the In-town BRT from Iwilei to Kamekee, no transit stops or transfer centers are shown for Waikiki in the SDEIS. However, as with the University/King Transit Stop accessing the mauka In-Town BRT route with peak period service proposed to be generally provided every 5 to 15 minutes and off-peak service every 15 to 30 minutes (see 2-7), the Kapahulu Transit Stop at the Waikiki BRT terminus is clearly a foreseeable candidate as a transit center transfer point for bus routes from East Honolulu accessing the Waikiki-to-Downtown In-Town BRT route.*

Response: As indicated in response to comment #102, it will be an on-street transfer point not an off-street transit center.

105. *Surely these concerns and any impact disclosures prompted there from should be properly addressed in an additional SDEIS specific to the Waikiki segment in accordance with the established Environmental Impact Review process for proposed projects funded by public revenue sources.*

Response: The MIS/DEIS, SDEIS, and FEIS Chapter 2 presents the project description, including the Waikiki BRT stops. The environmental documents also disclose the impacts and benefits associated with implementing the BRT project.

106. *As an example, the SDEIS states that the Kakaako Makai Branch would operate between the Iwilei Transit Center on the Ewa end and an undefined Kapahulu Stop on the Koko head end (see S-5), and goes on to disclose that portions of the Kakaako Mauka and Makai branches on Richards Street have been realigned to address resident input (see S-6), as objections to using Richards Street makai of South King Street for the BRT route lead to requests for the City to explore alternate alignments (see 2-29). Further, the Director of the City Department of Transportation Services, Cheryl Soon, clearly stated at the McCully/Moiliili Neighborhood Board's regular meeting of February 7, 2002, that the planning process will have as many meetings as needed (see Neighborhood Board #8 Meeting Minutes, page 5).*

However, although specific concerns were stated in responses to the BRT MIS/DEIS regarding the Kapahulu end of the proposed BRT route as described, there has been no further opportunity for resident community input regarding the impacts of the proposed In-Town BRT corridor on this area, and more specifically Kapiolani Park. In fact, interested and affected organizations and individuals, including but not limited to the Kapiolani Park Preservation Society and the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board, have been neither directly informed of nor invited to sporadic Waikiki workshops to address the Waikiki segment of the In-Town BRT route.

Response: The proposed BRT project will not affect Kapiolani Park. DTS has coordinated with the Kapiolani Park Preservation Society and attended and responded to questions at many Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board meetings.

107. *Further, the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board was informed by City Councilmember Balnum at their April 11, 2002, regular meeting that there would be no SDEIS published on the In-Town BRT lane relocations, commercial loading zone changes, or any other changes to the Waikiki/Kapahulu portion of the proposal.*

Response: The MIS/DEIS, SDEIS and FEIS reflect the effects associated with the project including any proposed lane configuration or commercial loading zone changes, etc.

108. *Therefore, desired community input on the potential significant impacts of the In-Town BRT on the Kapahulu area has been virtually precluded. Had the few Waikiki workshops occurred openly and informatively, the concern about the potential significant impact on one of the area's most prominent historic sites along the proposed In-Town BRT route, Kapiolani Park, could have been brought forth.*

Response: The proposed BRT project will not affect Kapiolani Park. It will provide another transportation means to access the park.

109. *The SDEIS states that priority treatment for buses would involve minimal physical change, resulting in little or no visual impact to the existing landscape, regardless of lane use (see S-10). However, the SDEIS does not address the visual and viewplane impact on the traditional Hawaiian Sense of Place for residents and visitors alike experiencing the 51 futuristic, 60-foot-long double tram cars, 15 feet in height, as they stop in front of historic Iolani Palace, cut along the significant Waikiki ocean shoreline viewplane, and intrude on historic Kapiolani Park landscape and significant Diamond Head resource viewplanes every 3 minutes.*

Response: As stated above, the BRT vehicles will be about ten and a half feet tall, not 15 feet. The look of the vehicles will be selected with community input. We do not understand how the impact described is any different than what currently occurs today with city buses, which pass through the Capitol District and Waikiki, near the shoreline.

110. *In addition, a tree survey and impact analysis for the In-Town BRT identified 144 trees that would be impacted by the project, of which 36 trees are classified as "notable", i.e., important to the urban landscape character, either individually or groped to comprise a recognized and important element of the visual landscape (see S-11). According to the SDEIS, a certified arborist determined that 25 trees were too old or otherwise unsuitable for successful transplantation, and these trees would be replaced elsewhere with City stock trees. Further, removing and relocating ten (10) "notable" mature monkeypod trees from Kapiolani Boulevard (see S-14) would unquestionably have a grave effect and significant impact on the visual character and integrity of this area!*

Response: Monkeypod trees on Kapiolani Boulevard that will be effected by the proposed action will be relocated on-site, meaning they will be moved with minimal trimming and replanted in the same vicinity. Therefore, the visual character or integrity of this area will be maintained.

111. *The SDEIS states that a financial plan analysis, conducted by consultants hired by the City administration, assessed the city's ability to operate and maintain the proposed transportation network, and financial plans were developed based on two key assumptions among others: 1) that the full scope of each alternative must be completed without raising taxes, and 2) that the City's high bond rating must not be effected. The SDEIS further states that funding would be sought from multiple federal and local sources, and that City general obligation bonds would be used to fund up to 47% of the cost of the project and additional general obligation bonds would be issued to fund early construction activities in anticipation of later federal or State reimbursement (see S-15, 16 and 18).*

Response: $40 million in State Highway Funds were removed as a capital revenue source and replaced with a combination of City GO Bond proceeds and FTA Section 5309 New Start grant funds. The increase of GO Bonds did not affect the City's capacity to fund the project, nor the City's future bond rating position.

112. *However, the above assumptions did not factor in the fact that the State has now declined to assist with the financing of the proposed project. This would appear to place an unduly burdensome risk on the City's taxpayers and have the potential to jeopardize the City's bond rating.*

Response: See response to comment #111.

113. *The SDEIS defines the local funding for this $1 billion project as $285.9 million in general obligation bonds with interest and principal debt service paid by the local taxpayer, and the City highway fund for $35.7 million, with the remainder of the $904 million – $422.3 million and $160 million – coming from Federal Transit Administration and Federal Highway Funds, respectively. For FY 2002 – 2010, the average total annual impact on the City taxpayer general fund (89%) and highway fund (11%) required for capital cost and operating cost subsidy would be: $107.8 Million for the regional BRT system (see S-18).*

Response: The FEIS financial plan demonstrates that the project can be financed without the use of State highway funds. Adjustments were made in phasing, revenue sources, and the amounts used from the various revenue sources in any given year. The changes made in the SDEIS and the FEIS demonstrates, in part, how the basic financial plan can be adjusted to account for changing conditions.

114. *The SDEIS further states that based on the above assumptions, major existing revenue sources were examined and costs were then compared to the revenue projected to be available from these sources over the nine-year period of FY 2002 to FY 2010, the period within which all of the capital improvements except vehicle replacements would be implemented. However, this could be somewhat misleading, as the SDEIS states that construction schedules would be phased according to the availability of funds and would be flexibly adjusted according to fiscal considerations (see S-16). Therefore, considering the question of availability of funds and the phasing of flexible construction schedules this may mean that in view of the State withdrawing from the project, construction may be delayed indefinitely or discontinued permanently with any shortage of local funds.*

Response: See response to comment #113.

115. *Further, because the SDEIS addresses the cost of the proposed project in terms of 1998 dollars, the SDEIS appears to be highly misleading and without regard for the total debt cost and capital expense outlay over the implementation phase of the proposed project.*

Response: The cost of the proposed project in the FEIS uses 2002 dollars, inflated to Year of Expenditure dollars in each of the project years.

116. *The SDEIS states that capital costs for the regional BRT from Kapolei to Kapahulu would cost $904 million over nine years from FY 2002 to FY 2010, and that construction of the In-Town BRT transit lanes and acquisition of a fleet of 51 high capacity electric vehicles would cost $345.5*

million with the balance of the capital costs to expand existing maintenance facilities and increase the transit fleet to 730 buses. The SDEIS further states that the capital costs for the In-Town BRT would be $388.2 million from FY 2002 to FY 2025 (see S-17 and S-6).

However, Table 2.3-1 on 2-26 of the SDEIS lists a different set of numbers -- $355.64 million for the In-Town BRT with a total cost of $999.5 million, and notes this increase includes $32.8 million for the addition of the Kakeako Makai branch and the Pensacola St. realignment, $8.3 Million for 13 additional In-Town BRT vehicles, and $14.5 Million for BRT alternative refinements.

In any event, the question remains centered on the mixed juggling of the numbers and whether these costs are limited to capital costs only, while annual inflation factors from the 1998 level through 2025 and debt service, including City taxpayer repayment of principal and interest, should be more properly disclosed as well.

Response: While the numbers have changed from the SDEIS to the FEIS due to further refinements to the project, you are misstating the SDEIS. On page S-17 it states that the capital cost of the entire "Refined BRT" (not the "Regional BRT" as you incorrectly indicate) is projected to be $904 million in YOE dollars for the period 2002-2010. It also states that the cost of the In-Town BRT portion in YOE for this same period would be $345.5 million.

The reason for the difference with Table 2.3-1 is that Table 2.3-1 reflects capital costs for the period 2002-2025 expressed in 1999 dollars. So there is a difference in the time frames and in the use of present and future dollars.

Debt service for the bonded portion of these capital costs is reflected in the cash flow analyses in Appendix E of the SDEIS and FEIS.

117. *The non-federal capital cost of the proposed BRT project is to be financed through City taxpayer-reimbursed General Obligation bonds. The SDEIS states: "BRT would result in over 18% WORK TRIPS on transit ... and 14.7% with no-build" (see S-8). This is only a 3.3% increase in work trips at a cost of nearly $1 billion in 1998 dollars, not including debt service.*

Response: The nearly $1 billion includes the normal replacement of the entire bus fleet over a 23 year period. This roughly $440 million in capital costs would be needed whether the BRT system were built or not. More to the point, however is that the cost of improving the transit system to attract additional riders out of their autos is less than half of what the cost would be to widen the roads to carry these same people if they remained in their autos. (See Chapter 2, Section 2.6.1 of the FEIS for the Highway Alternative).

118. *Further, the operations and maintenance cost is projected at a whopping 71% to be subsidized by City taxpayers to supplement collected fares (see 6-1). According to the SDEIS, operations and maintenance subsidies for the regional BRT in 1998 dollars would be $133 million in FY 2025, and the total estimated operating cost for the regional BRT system would be $188.4 million in FY 2010 (see S-6, 17 and 18). Thus, all but at least $55.4 million of the operations and maintenance costs of the regional BRT system will be subsidized by the Honolulu taxpayer in FY 2025 -- a 71% subsidy to increase work trips only 3.3%. Yet, Councilmember Balnum's Resolution adopted by the City Council last year places a 33% ceiling on any transit subsidy (see Exhibit B, attached).*

Response: The FEIS shows a 67 percent public operating subsidy.

In July 2001, the City Council adopted a policy that requires the bus farebox recovery ratio to not fall below 27 percent nor exceed 33 percent. The 33 percent ceiling is a ceiling on the amount of the bus fare, not a ceiling on the transit subsidy. This describes the Council's policy of the appropriate level of public support for the ongoing operations and maintenance of a public transportation system. The FEIS financial analysis assumes a 27 percent farebox recovery ratio.

119. *Together, as formulated in the SDEIS, this is going to cost the City taxpayers annually $83 million in capital costs and $133 million in operations subsidy, with In-Town fares only covering 4% of the additional operations cost. This capital and operation cost totals $216 million City taxpayer dollars paid annually as of 2010, with undefined debt service and inflation costs.*

The SDEIS defines the local funding for this $ 1 billion project as $285.9 million in general obligation bonds with interest and principal debt service paid by the local taxpayer, and the City highway fund for $35.7 million, with the remainder of the $904 million capital investment (in 1998 dollars) -- $422.3 million and $160 million -- coming from Federal Transit Administration and Federal Highway Funds, respectively (see S-18). Here the City anticipates a 64% : 36% funding ratio for funding from federal and local sources, respectively. However, federal funding practices indicate that high-end transportation projects in the $1 billion range, such as that proposed for Honolulu, would only be funded at a 50%:50% matching fund ratio, as the more costly the project, the less federal funding match awarded. Further, according to national experts in this area, this would be allocated at only $100 million annually for five years to help ensure accountability.

Response: You are mixing costs for the entire island-wide transit system with fare revenue for only the In-Town BRT. The correct numbers for the In-Town BRT that were in the SDEIS are an annual O&M cost of $20.5 million in year 2010 in YOE dollars with annual fare revenue of $5.13 million.

The financial plan presented in Chapter 6 shows that a combination of funding sources will be used. Federal sources of capital funding will be FTA formula and grant funds, and FHWA highway program funds. The federal portion of FTA New Starts funds can be as high as 80 percent, but are typically 50 percent shared with the local entity. The Refined LPA assumes a 50 percent federal share for these funds. FHWA funds are 90 percent federally funded for projects on the Interstate highway system and 80 percent for other eligible highways. Since some portions of the project will be funded with FTA funds and some with FHWA funds the average federal share is projected to be about 65 percent.

120. *Moreover, current indications are that the Congressional re-authorization dollar amount is going to be controversial this year in a battle of how much will be inserted in the transportation bill. In addition, the Federal Transportation Administration has confirmed that the State has withdrawn support of the Honolulu BRT project proposal and is no longer part of the BRT financing equation.*

Response: This is factually incorrect. The State has not withdrawn support for the BRT project. To the contrary, OMPO which is the agency responsible for allocating federal funding for transportation projects has included funding for the Refined LPA in its updated long-range plan. The OMPO Policy Committee which makes these decisions is primarily comprised of State legislators and City Council members. What has been agreed to at OMPO is that the state will not be supplying the local match for some project elements that was assumed in the DEIS (this amounted to $40 million total). The City instead will supply the match, which is what was shown in the SDEIS and is now shown in the FEIS.

121. *Yet, the City administration "anticipates" federal and state funding reimbursement "later", and the City administration "assumes" that the $ billion-plus transportation project will be completed without raising taxes, and that the City's bond rating will not be affected (see S-16 and S-18).*

Response: While the conclusions stated are correct, they are not the City administrations conclusions, they are the conclusions of extensive financial analyses, the results of which are presented in Chapter 6 of the FEIS.

122. *Does the City and County of Honolulu have the financial capacity to afford this? Under the City's current fragile financial condition it would appear that this would place an unduly burdensome weight on Honolulu City taxpayers, as well as negatively affect the City's current bond rating to the point where such rating agencies as Moody's, Standard & Poor's, and Fitch's could downgrade City bonds to junk-bond rating, causing financing costs to soar even higher for City taxpeyers. Rather than paying down the debt load, the present City administration advocates restructuring the City's debt load by creating more debt to pay off existing debt, spinning the City's taxpayers, those ultimately responsible for satisfying both principal and interest paid on capital improvement general obligation bonds, into an ever deeper fiscal black hole. Therefore, the In-Town portion of the proposed BRT system, with all its inherent problems and impacts on the urban core, will be much, much more than a bad investment for City taxpayers – it will become an unwieldy fiscal burden on the citizens of Honolulu.*

Response: As shown in the table below, the additional City revenues required to supplement debt service payments from the Highway Fund comprise no more than 0.75% of the City's Operating Budget in any one year. This amount is thus quite modest in comparison to the total resources the City makes available for its annual operating costs.

ESTIMATED ADDITIONAL CITY FUNDS REQUIRED FOR DEBT SERVICE FOR REFINED LPA

	Operating Budget	Additional Debt Svc over Highway Fund	Percent of Budget
FY 2002	894,234,610		
FY 2003	896,000,000	0	0.00%
FY 2004	1,016,500,000	0	0.00%
FY2005	1,086,200,000	0	0.00%
FY 2006	1,103,700,000	668,252	0.06%
FY 2007	1,147,200,000	3,029,022	0.26%
FY 2008	1,177,600,000	4,463,634	0.38%
FY 2009	1,212,310,000	6,672,519	0.55%
FY 2010	1,246,679,300	8,431,998	0.68%
FY 2011	1,286,138,678	9,152,805	0.71%
FY2012	1,324,723,859	9,002,063	0.68%
FY2013	1,364,465,585	10,296,863	0.75%
FY2014	1,404,360,949	8,120,231	0.58%
FY2015	1,445,289,293	6,271,871	0.43%
FY2016	1,487,494,561	8,891,344	0.60%
FY2017	1,530,921,754	9,336,197	0.61%
FY2018	1,575,616,776	10,611,835	0.69%
FY2019	1,621,615,563	11,210,802	0.69%
FY2020	1,668,959,509	12,276,159	0.74%
FY2021	1,717,684,522	11,846,202	0.69%
FY2022	1,767,832,054	7,637,032	0.44%
FY2023	1,819,443,836	8,575,354	0.48%
FY2024	1,872,562,010	10,592,910	0.57%
FY2025	1,927,231,169	8,212,203	0.43%

Notes
Operating Budget estimates for 2002 - 2013 provided by City Finance Department.
Operating Budget estimates for 2014 - 2025 assume the Operating Budget will increase annually at the compound annual growth rate demonstrated over the 2002-2013 period (2.92%).
Additional Debt Service over Highway Fund is the funding required in addition to the maximum level of funds projected to be available for debt service from the Highway Fund, assuming a 0.5% annual growth of the Highway Fund.

123. *The proposed In-Town BRT is a very restrictive undertaking. It restricts the free flow of traffic. It restricts the free enterprise of private carriers by threatening their livelihood. It restricts open discussion of reasonable alternatives for REAL traffic congestion solutions. And last, but certainly not least, it restricts advancement of the quality of life in our urban area by overburdening the City taxpeyers with unwieldy capital and operations costs.*

Response: Comment noted. It is a statement of opinion. The BRT project will provide Oahu residents with another transportation option and as a result has the potential to enhance the quality of life.

124. *What does the In-Town BRT really mean? It means compounded congestion on main thoroughfares by 60-foot trams every 2 to 4 minutes that eat up traffic lanes. In spite of the City administration's claims, this will not get cars off the road. It will cause cars to circumnavigate the main traffic thoroughfares into surrounding communities and neighborhoods, increasing congestion, noise and pollution in residential areas. The construction jobs are temporary – but the impact on our streets, in our neighborhoods, and our livelihoods will be here to stay for several generations if the In-Town BRT is allowed to roll forward.*

Response: Comment noted. It is a statement of opinion without substantiation.

125. *The In-Town BRT is the wrong system for Honolulu's contained urban area. The solution to Oahu's urban traffic gridlock is over the longest distance to serve the greatest number of people in the least amount of time. The transportation proposal should be focusing instead solely upon addressing Oahu's transportation needs between Kapolei, the "Secondary Urban Center," and Honolulu's urban core (see S-3). Ironically, what is most practical and less costly for the higher density in-town Honolulu Urban Core surrounded by smaller mountain, valley and shoreline communities and business districts, is a combination of far more accessible, flexible and convenient public and private circulator and express routes – that which was rejected by the City administration in favor of the In-Town BRT.*

Response: It was the City Council and OMPO Policy Committee that selected the BRT as the LPA, not the City Administration.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under seperate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00594

November 13, 2002

Mr. David Maxwell
P.O. Box 15849
Honolulu, Hawaii 96830-5849

Dear Mr. Maxwell:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'd like to talk about the economic impact. Our country had eight years of prosperity, and now I think we're going to have four years of disparity.*

   Response: Comment noted.

2. *As an unemployed person, I will not be paying taxes until I get a job. So I think you guys should think before you ink.*

   Response: Comment noted.

3. *And also, technology changes every day. I think, in the next ten years, the bus system that we have now will be some kind of different bus system.*

   Response: We concur.

4. *And once you start this project, you won't be able to change it. That's all I had to say.*

   Response: The project has been refined as a result of our community involvement activities. In addition, one of the benefits of BRT is that the routing can be revised, if required without a major disruption to service. This differs from light rail, which is stationary and the rails, electric source, etc. would result in major disruptions if changes were required.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

4/20/02

APR 2 0 2002

Ms. Cheryl Soon, Director
Department of Transportation Services
City & County of Honolulu

Dear Ms. Soon,

I am in support of the Bus Rapid Transit program all the way!

The BRT is a good start for introducing a mass transit program in Hawaii. There are many of us that rely on public transportation and welcome improvements to our existing Bus system, and I think this is definitely the way to go.

Thank you for your insight.

Laurie McCollum

Laurie McCollum

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD02-00596

November 12, 2002

Ms. Laurie McCollum

Subject: Primary Corridor Transportation Project

This is in response to the comments in your April 20, 2002 letter regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I am in support of the Bus Rapid Transit program all the way!*

   Response: Thank you for supporting the project.

2. *The BRT is a good start for introducing a mass transit program in Hawaii. There are many of us that rely on public transportation and welcome improvements to our existing Bus system, and I think this is definitely the way to go.*

   Response: We appreciate you attending the public hearing and supporting the project.

Thank you for your interested in this project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: Helen McCune

Representing: myself

Address: 2464 PRINCE EDWARD

Please make any comments below:

let's have a bus that goes all the way from Waikiki to Waialae Ave. The trolley costs $ + doesn't take passes. Then we can patronize those businesses, and also provide an alternate route to Kahala Mall

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00596

November 13, 2002

Ms. Helen McCune
2464 Prince Edward
Honolulu, Hawaii 96815

Dear Ms. McCune:

Subject: Primary Corridor Transportation Project

This responds to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

Let's have a bus that goes all the way from Waikiki to Waialae Ave. The trolley costs $ and doesn't take passes. Then we can patronize those businesses and also have an alternate route to Kahala Mall.

Response: This is a comment about the present bus system and not the proposed project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

October 26, 2000

RECEIVED
Oct 27 3 48 PM '00
CITY C.
HONOLULU, HI

TESTIMONY BEFORE THE CITY AND COUNTY OF HONOLULU
COUNCIL COMMITTEE ON TRANSPORTATION ON THE PRIMARY
CORRIDOR TRANSPORTATION PROJECT

Thank you Chairman Bainum and Committee Members. I am Ed McInerny, a concerned private citizen.

While I don't believe anyone in this room would agree that the No-Build alternative offered in the MIS/DEI's Summary is a viable solution, care must be taken in giving consideration to the other alternatives.

My primary concern this evening, has to do with the proposed implementation of the Transportation System Management (TSM) and the Bus Rapid Transit (BRT) concepts and their effect.

In the case of the in-town BRT system and the proposed use of electrified vehicles on exclusive transitory lanes along existing streets, I am genuinely concerned as to the effect this may have on the traffic patterns in those areas.

In addition, during the construction phase of the project, what will the impact be on businesses and other transportation providers along the proposed route. In high density areas such as Waikiki, what will be the effect on both freight and passenger loading zones and their impact on those industries? Will emergency service such as Police, fire and Ambulances be affected in these areas?

While any change can sometimes be disruptive, thought must be given and sensible solutions sought out.

In conclusion, I am not opposed to improvements to Oahu's Transit System, but can only hope that any of the alternatives you select will help to enhance our existing award winning transportation system.

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00597

November 13, 2002

Mr. Ed McInerny
1878B 10th Avenue
Honolulu, Hawaii 96816

Dear Mr. McInerny:

Subject: Primary Corridor Transportation Project

This responds to your October 26, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *In the case of the In-Town BRT system and the proposed use of electrified vehicles on exclusive transitory lanes along existing streets, I am genuinely concerned as to the effect this may have on the traffic patterns in those areas.*

   Response: Chapter 4 of the MIS/DEIS and FEIS address anticipated transportation impacts.

2. *In addition, during the construction phase of the project, what will the impact be on businesses and other transportation providers along the proposed route.*

   Response: Section 5.12 of the MIS/DEIS and FEIS discuss the impacts of construction activities.

3. *In high density areas such as Waikiki, what will be the effect on both freight and passenger loading zones and their impact on those industries?*

   Response: In the public outreach for the project, the City established a Working Group (WG) for the Waikiki area which included representatives from hotels, retail and service industries, commercial passenger and freight carriers, and residents. One topic of discussion was the proposed BRT lane configurations for the various segments of the In-Town BRT in Waikiki. In addition, a detailed study of passenger and freight loading activities was performed and reviewed with the Waikiki WG. Discussions with this working group led to revisions in the

proposed project that resulted in no appreciable loss of on-street loading space along the streets affected by the BRT. This was achieved by allowing freight carriers to use the BRT shared lane during legal delivery hours (10 p.m. to 9 a.m. on Kalakaua Avenue and 10 p.m. to 7:30 a.m. on Kuhio Avenue); the BRT would simply pass around a stopped loading truck by using the adjacent traffic lane.

4. *Will emergency service such as Police, fire and Ambulances be affected in these areas?*

   Response: On the contrary, the proposed network of exclusive and semi-excusive BRT lanes will greatly enhance emergency vehicle times by providing an uncongested lane for such vehicles to reach incident locations. With proper emergency traffic signal preemptions in place, BRT vehicles will be able to move out of the exclusive lane at the nearest intersection to allow emergency vehicles to pass through the intersection unimpeded by either left turning or cross street traffic.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

The Honorable Jon Yoshimura, Chair,
and Members of the City Council
City and County of Honolulu
Honolulu, Hawaii 96813

November 13, 2000

Nov 13 5 26 PM '00
CITY CLERK
HONOLULU

Dear Chair Yoshimura and Councilmembers:

I honorably request that you approve "Resolution 00-249."

Therefore, it's imperative that the "City and County of Honolulu" move forward in this positive manner to address the traffic problems that we now face. I've personally attended most of the "Community" meetings regarding this issue and fully support this project.

Hence, I still wonder though, how do we as a community address the number of new vehicles sold/purchase each year (20% increase in 2000, 33% increase in 1999, etc)? I strongly endorse the mobility concepts forwarded by the City Administration.

We must continue to plan and work for the future population.

Sincerely,

Kii McMannen
P.O. Box 15465
Honolulu, HI 96830

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00608

November 13, 2002

Mr. Kli McMannen
P. O. Box 15465
Honolulu, Hawaii 96830

Dear Mr. McMannen:

Subject: Primary Corridor Transportation Project

This is in response to your November 13, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I honorebly request that you approve "Resolution 00-249." Therefore, it's imperative that the "City and County of Honolulu" move forward in this positive manner to address the traffic problems that we now face. I've personally attended most of the "Community" meetings regarding this issue and fully support this project.*

   Response: Thank you for supporting the project.

2. *Hence, I still wonder though, how do we as a community address the number of new vehicles sold/purchased each year (20% increase in 2000, 33% increased In 1999, etc.)? I strongly endorse the mobility concepts forwarded by the City Administration.*

   Response: Comment noted.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

TP 5102 - 1782

April 29, 2002

Department of Transportation Services
650 So King Street, 3rd floor
Honolulu, Hawaii 96813

MAY 6 2002

attention: Cheryl Soon, Director

Dear Ms. Soon;

I would like to add my opposition to the present Bus Rapid Transit project.

My reasons are many but chief among them is the fact that we have a very good bus system right now and only need, perhaps, a few additional buses in outlying areas. The millions of dollars necessary for this proposal would be better used elsewhere.

Thank you.

Yours truly,
Mrs. V. McWaters
1777 Ala Moana, #326
Honolulu, Hi. 96815

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01782R

November 13, 2002

Mrs. V. McWaters
1777 Ala Moana Blvd. #326
Honolulu, Hawaii 96815

Dear Mrs. McWaters:

Subject: Primary Corridor Transportation Project

This is in response to your April 29, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (MIS/DEIS).

1. *I would like to add my opposition to the present Bus Rapid Transit project.*

   Response: Comment noted. No response required.

2. *My reasons are many but chief among them is the fact that we have a very good bus system right now and only need, perhaps, a few additional buses in outlying areas. The millions of dollars necessary for this proposal would be better used elsewhere.*

   Response: Comment noted. No response required.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

2749 Rooke Avenue
Honolulu, HI 96817

November 6, 2000

Ms. Cheryl Soon
Director
City and County of Honolulu
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Governor, State of Hawaii
C/O Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Parsons Brinckerhoff Quade and Douglas, Inc.
Pacific Tower, Suite 3000
1001 Bishop Street
Honolulu, Hawaii 96813

Ms. Donna Turchie
Senior Transportation Representative
Region IX
Federal Transit Administration
U.S. Department of Transportation
201 Mission Street, Suite 2210
San Francisco, California 94105-1839

Federal Highway Administration
Hawaii Division
Box 50206
Honolulu, HI 96850

Oahu Metropolitan Planning Organization Policy Committee
707 Richards Street, Suite 200
Honolulu, Hawaii 96813

Subject: Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS)

These are my opinions: I do not presume to speak for anyone else.

THE PROPOSING AGENCY

1. I think that the Oahu Metropolitan Planning Organization (OMPO) should insist that the State DOT become a co-lead for preparation of the MIS/FEIS. Designating the DOT as a co-lead will help with State "buy-in", improve MIS/FEIS cost estimates and technical analysis, and make the City and State cooperate in setting realistic priorities.

THE COST ISSUE

2. As proposed in the MIS/DEIS, so much FHWA, DOT, and City funds would be committed for BRT development that it would be necessary to postpone most other desirable freeway, arterial, and bikeway improvements. In my opinion, OMPO needs to identify ways to reduce the cost of the BRT proposal and to spread out costs over a longer period.

   To allow OMPO to make informed decisions about the relative costs and benefits of proposed new Regional BRT freeway access ramps and parking facilities, I request that the MIS/FEIS:

- estimate BRT use in 2010, and in 2025, of the proposed H-1 Kapolei ramp, Kunia ramp, Radford ramp, Kaonohi ramp, and Middle Street ramp if the entire Regional BRT were completed as proposed.

- estimate what bus ridership would be lost and/or what additional person hours of travel delay would result in 2010 from postponing construction of the proposed H-1 Kapolei ramp, or the proposed Kunia ramp, or the proposed Radford ramp, or the proposed Kaonohi ramp, or all four proposed ramps, or the proposed Middle Street ramp.

- estimate how much construction cost (including ancillary improvements) could be deferred by postponing construction of the proposed H-1 Kapolei ramp, or the proposed Kunia ramp, or the proposed Radford ramp, or the proposed Kaonohi ramp, or the proposed Middle Street ramp.

- estimate what bus ridership would be lost and what construction cost could be deferred by postponing construction of each separate proposed new BRT parking facility.

THE SUBSIDY ISSUE

3. I think that OMPO needs to get a better understanding - - and set reasonable limits - - on public subsidies to encourage City bus ridership. OMPO should not allow either FHWA or FTA funds to be used for unreasonable subsidies. Is it worth spending $30 million of public funds to build a special BRT access ramp at Kapolei to encourage a few hundred more leeward Oahu commuters to ride the bus during rush-hour traffic? Is it worth

spending $20,000 of public funds to build a park-and-ride stall in a Middle Street parking garage, and offer free parking, to encourage one more leeward Oahu commuter to ride the bus during rush-hour traffic? Is it worth spending $1,200/year of public funds for subsidies to encourage one more leeward Oahu commuter to ride the bus during rush-hour traffic? (Excluding capital costs, taking fare revenues into account, average City commuter express bus operating subsidies already exceed $5.50/day per round-trip rider. Unfortunately, this amounts to more than $1,200/year/rider.)

THE SHORT TERM WHO IS BETTER OFF/WHO IS WORSE OFF ISSUE

4. I think the MIS/DEIS needs to disclose how many bus riders will be better off and how many drivers will be worse off after completion of the In-Town BRT in 2005. I also think the MIS/DEIS needs to disclose how completion of the In-Town BRT will impact total vehicle hours of traffic delay in 2005 and total persons hours of travel delay in 2005. There is no question that a bus on an exclusive transit right-of-way (ROW) would not be slowed by traffic congestion. However, consider the impact on peak eastbound morning traffic approaching Middle Street in 2005 when an eastbound traffic lane is removed from Dillingham Boulevard and converted to BRT use. Or, consider the impact on peak eastbound afternoon traffic approaching Piikoi Street in 2005 when eastbound lanes of both Kapiolani and Ala Moana Boulevards have been converted to BRT use.

THE LONG TERM VIEW

5. Over the long term, if traffic lanes are taken away from a highly congested roadway network, I think that drivers will alter their bebavior so that there is no increase in peak period traffic delay. Contrary to the 2025 projections in the MIS/DEIS, I do not believe that taking traffic lanes away from cars to establish a BRT system will ever actually reduce peak period traffic delay. On the other hand, when traffic congestion lasts for hours, and there is a lot of latent travel demand, a good BRT system can significantly increase peak period person throughput and significantly reduce peak period travel delay for bus riders. That's why I support the concept of an exclusive, continuous In-Town BRT ROW.

6. Over the long term, it is bad planning for the MIS/DEIS to propose that the BRT share traffic lanes with cars on Kapiolani Boulevard between Atkinson Drive and University Avenue. MIS/DEIS traffic projections clearly show that any part of the In-Town BRT which shares arterial traffic lanes with cars will end up mired in peak period traffic congestion. It is not essential that the BRT route be located on Kapiolani Boulevard, or that the BRT route extend all the way to UH Manoa. However, I think it is essential for the MIS/FEIS to propose a continuous, exclusive In-Town BRT ROW which will prevent the BRT from being stuck in traffic.

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THE ENVIRONMENTAL JUSTICE ISSUE

7. Apart from planning considerations, I do not think it complies with FTA standards for "environmental justice" to take traffic lanes away from cars (and ban left turns to/from driveways) along the low income Dillingham Boulevard BRT ROW but not to take traffic lanes away from cars along the more affluent Kapiolani Boulevard BRT ROW east of Atkinson Drive.

ISSUES POSED BY THE PROPOSED EASTBOUND MORNING H-1 ZIPPER-LANE EXTENSION

8. Deployment of the morning zipper-lane reduces the westbound H-1 to a single lane in part of the Waiawa Interchange. This is already causing a traffic jam for Ewa-bound traffic. The MIS/FEIS needs to include capacity analysis at all potential bottlenecks, including the Waiau and Waiawa Interchanges, to determine necessary modifications so that the Ewa-bound H-1 will have adequate capacity to handle projected 2025 traffic when two Ewa-bound lanes are removed by deployment of the morning zipper-lane. Because of the eastbound shoulder lane, the Kalauao screenline discussed in the MIS/DEIS may not be the most critical section for analysis.

9. The MIS/DEIS proposes a morning zipper-lane extension which will dump most eastbound HOV traffic onto a westbound freeway on-ramp from Nimitz Highway. Unfortunately, the MIS/DEIS totally fails to address management of morning contra-flow traffic on Nimitz Highway.

ISSUES POSED BY THE PROPOSED WESTBOUND AFTERNOON H-1 ZIPPER-LANE

10. In combination with DOT westbound H-1 widening from Kaonobi to the Pearl City off-ramp, the proposed MIS/DEIS afternoon zipper-lane could significantly reduce travel delay through two major afternoon freeway bottlenecks. One of these bottlenecks is caused by heavy traffic from the Pearl Harbor/Nimitz Highway on-ramp merging onto the Ewa-bound H-1; the other is caused by the drop in westbound H-1 lanes between the Halawa Interchange and the Pearl City off-ramp.

11. The City's proposal for an afternoon zipper-lane justifies further study even if no BRT freeway access ramps are built. However, implementation will be complicated and costly. Issues that are not adequately addressed in the MIS/DEIS, and still need to be resolved, include:

- headlight glare problems resulting from removal of the permanent median barrier between Waiawa and Waiau Interchanges.
- necessary widening/strengthening of the existing eastbound shoulder lane (which was not designed for heavy use) and other required improvements which should be scheduled at the same time to reduce the inconvenience to motorists.

- appropriate widening/modification of the Waiawa interchange.
- capacity of the southbound H-2 and eastbound H-1 to handle projected 2025 traffic when two town-bound lanes are removed by deployment of the afternoon zipperlane. Capacity analysis is needed at all potential bottlenecks, such as the Waiau Interchange, where there is no eastbound shoulder lane. Because of the eastbound shoulder lane, the Kalauao screenline discussed in the MIS/DEIS may not be the most critical section for analysis.

Thank you for the opportunity to express my opinions.

Sincerely,

D. Meller

A:\DBRT

AR00015962

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD11/00-05418R

November 13, 2002

Mr. D. Meller
2749 Rooke Avenue
Honolulu, Hawaii 96817

Dear Mr. Meller:

Subject: Primary Corridor Transportation Project

This is in response to your November 6, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I think that the Oahu Metropolitan Planning Organization (OMPO) should insist that the State DOT become a co-lead for preparation of the MIS/FEIS. Designating the DOT as a co-lead will help with State "buy-in", improve MIS/FEIS cost estimates and technical analysis, and make the City and State cooperate in setting realistic priorities.*

   Response: HDOT elected to be a cooperating agency, not a co-lead on the Primary Corridor Transportation Project (PCTP).

2. *As proposed in the MIS/DEIS, so much FHWA, DOT, AND City funds would be committed for BRT development that it would be necessary to postpone most other desirable freeway arterial, and bikeway improvements. In my opinion, OMPO needs to identify ways to reduce the cost of the BRT proposal and to spread out costs over a longer period.*

   Response: Implementation of the PCTP does not preclude implementation of any of the most desired highway or bikeway projects as established by the OMPO Policy Committee, since these projects are included in the regional transportation plan (TOP 2025).

3. *Estimate BRT use in 2010, and in 2025, of the proposed H-1 Kapolei ramp, Kunia ramp, Radford ramp, Kaonohi ramp, and Middle Street ramp if the entire Regional BRT were completed as proposed.*

   Response: Subsequent to the MIS/DEIS being published and based on comments received, the exclusive BRT ramps in Kapolei, Kunia, Kaonohi, Radford Drive, and Middle Street have been deleted from the project. Instead the BRT will use existing or HDOT proposed freeway ramps at Kapolei, North-South Road, and Middle Street. Priority treatments such as queue jump lanes are proposed at these ramps instead. Also, a new ramp for the exclusive use of BRT buses is proposed at Luapele Drive. This new ramp would serve the Aloha Stadium Transit Center/Park-and-Ride.

4. *Estimate what bus ridership would be lost and/or what additional person hours of travel delay would result in 2010 from postponing construction of the proposed H-1 Kapolei ramp, or the proposed Kunia ramp, or the proposed Radford ramp, or the proposed Kaonohi ramp, or all four proposed ramps, or the proposed Middle Street ramp.*

   Response: See response to comment #3.

5. *Estimate how much construction cost (including ancillary improvements) could be deferred by postponing construction of the proposed H-1 Kapolei ramp, or the proposed Kunia ramp, or the proposed Radford ramp, or the proposed Kaonohi ramp, or the proposed Middle Street ramp.*

   Response: See response to comment #3. The eggregate savings of the ramp deletions is estimated at $166 million in 2002 dollars.

6. *Estimate what bus ridership would be lost and what construction cost could be deferred by postponing construction of each separate proposed new BRT parking facility.*

   Response: Each proposed park-and-ride is sized to meet the projected usage as determined from the travel demand forecasting models. Phasing of each facility is based on projected need and funding availability, such that the responses to the question raised are already built into the project.

7. *I think that OMPO needs to get a better understanding -- and set reasonable limits -- on public subsidies to encourage City bus ridership. OMPO should not allow either FHWA or FTA funds to be used for unreasonable subsidies. Is it worth spending $30 million public funds to build a special BRT access ramp at Kapolei to encourage a few hundred more leeward Oahu commuters to ride the bus during rush-hour traffic? Is it worth spending $20,000 of public funds to build a park-and-ride stall in a Middle Street parking garage, and offer free parking, to encourage one more leeward Oahu commuter to ride the bus during rush-hour traffic? Is it worth spending $1,200/year of public funds for subsidies to encourage one more leeward Oahu commuter to ride the bus during rush-hour traffic?*

   Response: The Honolulu City Council considered the costs and benefits of each of the alternatives in the MIS/DEIS and chose the BRT Alternative as the Locally Preferred Alternative. Likewise the Policy Committee of OMPO considered the costs and benefits of a wide range of projects and voted to include the BRT Alternative in the regional transportation plan for 2025.

8. *I think the MIS/DEIS needs to disclose how many bus riders will be better off and how many drivers will be worse off after completion of the In-Town BRT in 2005.*

   Response: Chapter 4 of the FEIS includes information to compare the projected travel time delay within the urban core for the Refined LPA compared to the No-Build and TSM Alternatives for the year 2025. In addition, Chapter 4 includes a traffic analysis depicting level of service information for the No-Build, TSM and Refined LPA Alternatives. A year 2025 not 2005 traffic analysis is what is required for an EIS on a transit project.

9. *I also think the MIS/DEIS needs to disclose how completion of the In-Town BRT will impact total vehicle hours of traffic delay in 2005 and total person hours of travel delay in 2005. There is no question that a bus on an exclusive transit right-of-way (ROW) would not be slowed by congestion. However, consider the impact on peak eastbound morning traffic approaching Middle Street in 2005 when an eastbound traffic lane is removed from Dillingham Boulevard and*

converted to BRT use. Or, consider the impact on peak eastbound afternoon traffic approaching Pilkoi Street in 2005 when eastbound lanes of both Kapiolani and Ala Moana Boulevards have been converted to BRT use.

Response: See response to comment #8.

10. *Over the long term, if traffic lanes are taken away from a highly congested roadway network, I think that drivers will alter their behavior so that there is no increase in peak period traffic delay. Contrary to the 2025 projections in the MIS/DEIS, I do not believe that taking traffic lanes away from cars to establish a BRT system will ever actually reduce peak period traffic delay.*

Response: Comment noted.

11. *On the other hand, when traffic congestion lasts for hours, and there is a lot of latent travel demand, a good BRT system can significantly increase peak period person throughput and significantly reduce peak period travel delay for bus riders. That's why I support the concept of an exclusive, continuous In-Town BRT ROW.*

Response: The FEIS findings are consistent with your stated position.

12. *Over the long term, it is bad planning for the MIS/DEIS to propose that the BRT share traffic lanes with cars on Kapiolani Boulevard between Atkinson Drive and University Avenue. MIS/DEIS traffic projections clearly show that any part of the In-Town BRT which shares arterial traffic lanes with cars will end up mired in peak period traffic congestion.*

Response: The BRT Alternative is comprised of exclusive BRT, semi-exclusive BRT and mixed-use lanes. The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly affected, exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes, exclusive transit lanes were retained such as on Dillingham Boulevard and Hotel Street.

On the section of Kapiolani Boulevard that you mention, the trade-off between the impact to motorists of losing the contraflow lane would not be offset by the cumulative travel time savings to BRT riders. Therefore it is recommended that the BRT operate in mixed traffic along this section of Kapiolani Boulevard.

13. *It is not essential that the BRT route be located on Kapiolani Boulevard, or that the BRT route extend all the way to UH Manoa. However, I think it is essential for the MIS/FEIS to propose a continuous, exclusive In-Town BRT ROW which will prevent the BRT from being struck in traffic.*

Response: See response to comment #12. The BRT alignment was developed based on extensive community input and sound transit planning principles. Kapiolani Boulevard was chosen because there are many major travel generators to be served and large vacant sites located there on which the BRT could help shape transit oriented development. Having UH Manoa as the terminus of one of the In-Town BRT branches is consistent with a universal transit planning objective of trying to terminate a line at a major generator of transit trips. Achieving exclusive lanes all along the BRT alignment is not practical. About two-thirds of the alignment will be in exclusive or semi-exclusive (shared with right-turning vehicles) lanes. The remaining sections of the alignment will operate in mixed traffic. There are only a few of these mixed traffic sections where delays of any significance are expected, (along Alakea and Bishop Streets on the two

Waikiki branches, the section of Ala Moana Boulevard between Forrest Avenue and Aloha Tower Drive on the Kakaako Mauka branch, and the section of Kapiolani Boulevard between Atkinson Drive and University Avenue on the UH branch). It was not considered practical or necessary to make these sections exclusive or semi-exclusive.

14. *Apart from planning considerations, I do not think it complies with FTA standards for "environmental justice" to take traffic lanes away from cars (and ban left turns to/from driveways) along the low income Dillingham Boulevard BRT ROW but not to take traffic lanes away from cars along the more affluent Kapiolani Boulevard BRT ROW east of Atkinson Drive.*

Response: The highest ridership on the In-Town BRT is forecast to occur along Dillingham Boulevard. In fact, the reasons for proposing exclusive lanes on Dillingham Boulevard and mixed-use lanes on Kapiolani Boulevard are related to the relative transportation benefits and impacts totally unrelated to socioeconomic characteristics of the areas. The In-Town BRT is projected to serve four times the number of riders along Dillingham Boulevard compared to along Kapiolani Boulevard Koko Head of Atkinson Drive. This means that four times as many BRT users would be delayed if the Dillingham Boulevard exclusive lanes were abandoned. The reason priority lanes were not proposed along Kapiolani Boulevard Koko Head of Atkinson Drive was not just because of there being lower ridership but also to preserve the peak period contra-flow traffic operation.

15. *The MIS/FEIS needs to include capacity analysis at all potential bottlenecks, including the Waiau and Waiawa interchanges, to determine necessary modifications so that the Ewa-bound H-1 will have adequate capacity to handle projected 2025 traffic when two Ewa-bound lanes are removed by deployment of the morning zipper lane. Because of the eastbound shoulder lane, the Kaluaa screenline discussed in the MIS/DEIS may not be the most critical section for analysis.*

Response: The FEIS uses the Year 2025 Oahu Regional Transportation Plan (RTP) highway network as the base network for all future alternatives. This plan is a fiscally-constrained plan and was approved by the Oahu Metropolitan Organization (OMPO) Policy Committee on April 6, 2001. Included in this future highway network is a project to widen H-1 Freeway by one lane in the eastbound direction from Waiawa Interchange to Halawa Interchange (project no. P-7) and a project to widen H-1 Freeway by one lane in the westbound direction from the Waimalu Viaduct to Pearl City off-ramp (project no. P-6). Also included were projects for H-1 widening in the westbound direction from Waiau to Waiawa Interchange (project no. P-43) and through the Waiawa Interchange (project no. P-42). Table 4.4-1 in Chapter 4 of the FEIS shows that these improvements would allow both directions of H-1 Freeway to operate at LOS E during both the AM and PM peak hours with the zipper lane deployed.

16. *The MIS/DEIS proposes a morning zipper-lane extension which will dump most eastbound HOV traffic onto a westbound freeway on-ramp from Nimitz Highway. Unfortunately, the MIS/DEIS totally fails to address management of morning contra-flow traffic on Nimitz Highway.*

Response: The proposed zipper lane extension would directly serve the A.M. contraflow lane on Nimitz Highway that the HDOT is planning.

17. *In combination with DOT westbound H-1 widening from Kaonohi to the Pearl City off-ramp, the proposed MIS/DEIS afternoon zipper-lane could significantly reduce travel delay through two major afternoon freeway bottlenecks. One of these bottlenecks is caused by heavy traffic from the Pearl Harbor/Nimitz Highway on-ramp merging onto the Ewa-bound H-1; the other is caused by the drop in westbound H-1 lanes between the Halawa Interchange and the Pearl City off-ramp.*

Response: The project agrees with this statement.

18. *The City's proposal for an afternoon zipper-lane justifies further study even if no BRT freeway access ramps are built. However, implementation will be complicated and costly.*

Response: Comment noted.

19. *Issues that are not adequately addressed in the MIS/DEIS, and still need to be resolved, include: 1) headlight glare problems resulting from removal of the permanent median barrier between Waiawa and Waiau interchanges. 2) necessary widening/strengthening of the existing eastbound shoulder lane (which was not designed for heavy usa) and other required improvements which should be scheduled at the same time to reduce the inconvenience to motorists. 3) appropriate widening/modification of the Waiawa interchange. 4) capacity of the southbound H-2 and eastbound H-1 to handle projected 2025 traffic when two town-bound lanes are removed by deployment of the afternoon zipper lane. Capacity analysis is needed at all potential bottlenecks, such as the Waiau interchange, where there is no eastbound shoulder lane. Because of the eastbound shoulder lane, the Kaiaueo screenline discussed in the MIS/DEIS may not be the most critical section for analysis.*

Response: 1) AASHTO Guidelines do not indicate that antiglare treatment in this area is required. The guidelines state that, "Where there is no fixed-source lighting, headlight glare across medians or outer separations can be a nuisance, particularly where the highway has relatively sharp curves. Under these conditions, some form of antiglare treatment should be considered as part of the median barrier installation, provided it does not act as a snow fence and create drifting problems. "(A Policy on Geometric Design of Highways and Streets, AASHTO, 1994, pg. 369.) The location of concern has fixed-source lighting and does not have relatively sharp curves.

2) The shoulders will be reconstructed to carry projected traffic loads. H-1 will be widened from Waiau Interchange to Aiea to accommodate the P.M. zipper lane (including the Waimalu viaduct). 3) Proposed improvements include adding a lane to H-1 WB to provide an option to H-1 WB and H-2 NB; widening of H-2 inbound ramp to 3 lanes + shoulders; widening of H-1 between the Pearl City viaduct and A.M. crossover to accommodate the P.M> cross-over. 4) See response to comment #15.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00598

November 13, 2002

Mr. Joe Miller
1801 Kalakaua Avenue
Honolulu, Hawaii 96815

Dear Mr. Miller:

Subject: Primary Corridor Transportation Project

This responds to the comment you made on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). Your testimony at the November 14, 2000 Special Transportation Committee Meeting supported the In-Town BRT as the Locally Preferred Alternative (LPA), with some concerns. Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

14 November 2000

Review Hearing

Subject: **Draft Impact Environmental Statement**
Primary Corridor Transportation Project

• • •

Witness: J. T. Miller - Retired and a 36 year resident of Honolulu.

RECEIVED
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HONOLULU CITY COUNCIL

Only recently did I learn of the changes under study for the Honolulu Rapid Transit System. Upon studying the subject DIES, my primary concern is the BRT proposal for the segment of **Richards Street from King Street to Ala Moana Blvd.** This new extension down to Halekauwila Street is totally unworkable.

The segment in question, proceeding makai down Richards Street from King Street, presently a one way street that barely functions as it is during the work week. The Primary Corridor Transportation Project would convert this street to a two way street, with huge articulated, tractor type buses proceeding down the center of it, with two scant lanes on either side to facilitate the following:

King Street to Queen Street

On the Diamond Head side:

The Main Downtown U. S. Post Office marshalling yard and loading docks, where over a hundred trucks arrive and depart daily, (except Saturday and Sunday).

On the Ewa side:

The 24 story City Bank Building: The main entrance and exit for six stories of parking for this building is directly across the street from the Post Office loading docks.

Queen Street to Halekauwila Street (one block):

On the Ewa side:

Main entry and exit to six floors of resident and business parking for the 27 story Harbor Square Complex. Main entry red curb loading zone for the apartment complex, frequently used by emergency (fire trucks and ambulance) vehicles who have no compunctions about stopping traffic for indefinite periods of time.

Queen Street to Halekauwila Street (continued)

On the Diamond Head side:

Sole entry and exit to six floors of parking for 12 story Melim Building. Twenty feet mauka of that exit is the sole entry and exit for 5 stories of parking for the 12 story Oceanview Center.

Halekauwila Street to Punchbowl

Sole entry and exit to parking garage floors for the 12 story Haseko Bldg.

ENVIRONMENTAL DISFIGUREMENT

Directly in front of the Oceanview Center, the following flora and fauna will be ripped out and eliminated for the purpose of bus traffic:

EIGHT (8) 30 foot palm trees
Three (3) Plumeria trees
A 60 ft. segment of curbed grass

Radical alterations required for turning radius of large rapid transit vehicles in this segment (and not addressed in the DEIS) are:

1. Narrowing of Nimitz Boulevard to two lanes at Richards Street area.
2. Closing of Halekauwila turnoff lane for Diamond Head bound traffic on Nimitz Blvd. for access to Kaakaako area, as Halekauwila will be BRT only from Richards to Punchbowl Street.

Possible Alternatives:

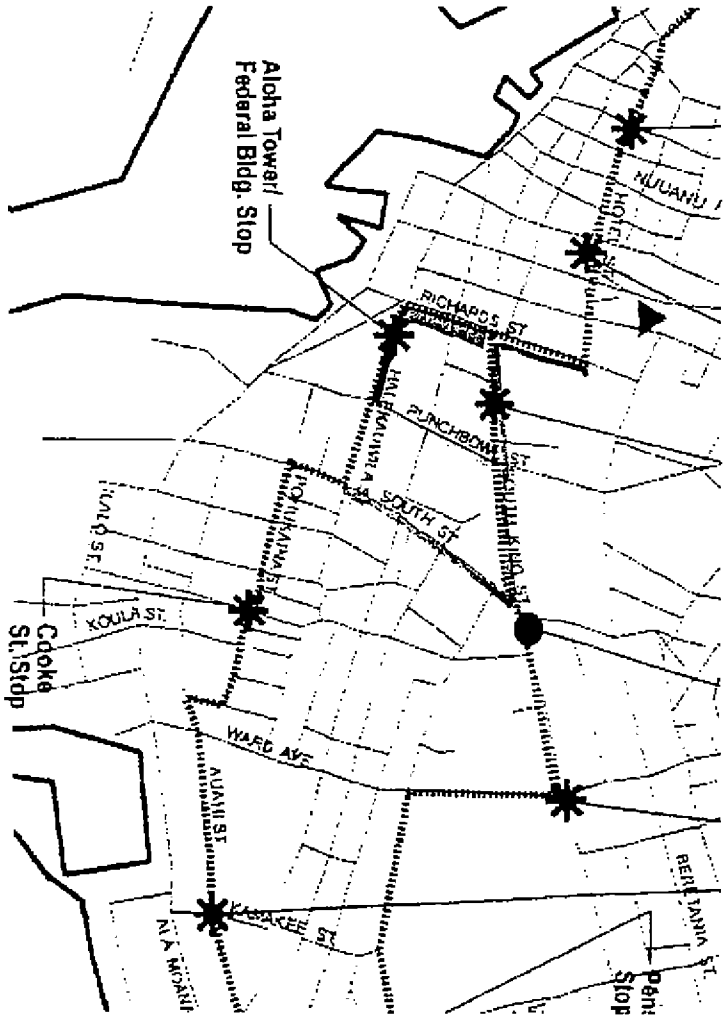
[redacted] Because this particular segment of the BRT is ill conceived, the following alternatives are submitted.

The 'slip' segment of the Waikiki bound route could be routed:

1. Hotel Street to King Street to Punchbowl Street to Pohukaina St. where a Passenger Transit Stop could be located at the Federal Bldg.

[redacted] 2. Hotel Street to King Street to South Street to Pohukaina St.

Both of these possible alternatives have less congestive impact than that proposed.



DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00599

November 13, 2002

Mr. J. T. Miller
Harbor Square Condo
700 Richard Street, #1909
Honolulu, Hawaii 96813

Dear Mr. Miller:

Subject: Primary Corridor Transportation Project

This is in response to your November 14, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Only recently did I learn of the changes under study for the Honolulu Rapid Transit System. Upon studying the subject DEIS, my primary concern is the BRT proposal for the segment of Richards Street from King Street to Ala Moana Blvd. This new extension down to Halekauwila Street is totally unworkable.*

   Response: Since the MIS/DEIS was published, the alignment has been changed to remove the BRT from Richards Street between South King Street and Halekauwila. The revised alignment uses Alakea (mauka-bound) and Bishop (makai-bound) Streets instead.

2. *The segment in question, proceeding makai down Richards Street from King Street, is presently a one way street that barely functions as it is during the work week. The Primary Corridor Transportation Project would convert this street to a two way street, with huge articulated, trecior type buses proceeding down the center of it, with two scant lanes on either side.*

   Response: See response to comment #1.

3. *Directly in front of the Oceanview Center, the following flora and fauna will be ripped out and eliminated for the purpose of bus traffic: **EIGHT (8) 30 foot palm trees**, three (3) Plumeria trees, a 50 foot segment of curbed grass.*

   Response: See response to comment #1.

4. *Radical alterations required for turning radius of large rapid transit vehicles in this segment (and not addressed in the DEIS) are: 1) Narrowing of Nimitz Boulevard to two lanes at Richards Street area; 2) Closing of Halekauwila turnoff lane for Diamond Head bound traffic on Nimitz Blvd: for access to Kakeako area, as Halekauwila will be BRT only from Richards to Punchbowl Street.*

Response: Nimitz Boulevard will not be reduced to two lanes at Richards Street. BRT vehicles will not be turning at Halekauwila and Richard Streets. The Halekauwila turnoff lane will not be closed to Koko Head-bound traffic. General traffic will be allowed on Halekauwila Street from Richards to Punchbowl Street.

5. *Because this particular segment of the BRT is ill conceived, three following alternatives are submitted.*

The 'slip' segment of the Waikiki bound route could be routed: 1) Hotel Street to King Street to Punchbowl Street to Pohukaina St. where a Passenger Transit Stop could be located at the Federal Building. 2) Hotel Street to King Street to South Street to Pohukaina Street. Both of these possible alternatives have less congestive impact than that proposed.

Response: The King Street to Punchbowl Street alignment had been looked at and rejected due to the significant traffic impact at the King/ Punchbowl Streets intersection of adding another signal phase to accommodate the BRT turning from Punchbowl mekei bound to King Street Ewa bound. Rerouting the BRT along King Street all the way to South Street was rejected since it would miss serving the Federal Building and several other important generators on Halekauwila Street.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

MARK A. MONOSCALCO
430 Lewers St., # 23D
Honolulu, HI 96815-2421
(808) 923-2579
E-mail: mark@monoscalco.com

Attn: Ms. Cheryl Soon
DOTS
City & County Hon.
650 S. King St. 3rd Floor
Honolulu HI 96813

April 18, 2002

Re: In-Town Bus Rapid Transit

To Whom It May Concern:

I wish to voice my opposition to the current proposal for the In-Town Bus Rapid Transit. Two aspects of the current proposal will increase traffic congestion. First the use of existing traffic lanes for the exclusive use of BRT will reduce the capacity of the streets for travel by all other types of vehicles. Second giving traffic signal priority to BRT will cause increased traffic congestion on all streets that the BRT crosses.

The design premise of this project is biased against automobile use. Providing alternatives to the private automobile is the stated purpose of this project (see DEIS S.1). The proper purpose of this project should be to reduce overall traffic congestion.

If the exclusive bus lanes are put into operation and the BRT is allowed to interrupt traffic signals, the motoring public will become outraged at the increase in traffic congestion. This outrage will follow the same pattern as the reaction to the recent traffic camera program. Predictability, the results will be the same. After enough public complaint, the City and County will be forced to remove the priority lanes and discontinue use of traffic signal interruption. This will mean that all money spent on construction of the priority lanes and traffic signal interruption equipment will be lost. In addition more money will need to be spent to remove the priority lanes.

Our current traffic system would benefit greatly from the following improvements:

1. Street widening – additional lanes for all type of vehicle traffic.
2. Intersection channelization – left and right turn bays with turn arrows.
3. Bus pullouts – allow a turn out lane for the Bus to load and unload passengers.
4. Coordinated traffic signals – using real time traffic data to change signal cycles.

The following streets could be upgraded to increased traffic capacity:

1. Auahi St. from South St. to Queen St.
2. Queen St. from Nimitz Hwy to Kamakee st.
3. McCully St. from H-1 to Kalakaua Blvd.
4. Bingham St. from Punahou St. to McCully St.
5. Punahou St. from King St. to Philip St.
6. Ward Ave from H-1 to King St.
7. Lusitania St. from Punchbowl St. to Kinau St.

The Bus system could be improved by applying the following suggestions:

1. Using global positioning satellite receivers on each bus to provide real time bus locations. This will allow real time bus scheduling to eliminate bus bunching (when several buses are traveling the same route close together).
2. Using the GPS data to display real time bus arrival schedules at each bus stop.
3. Eliminate redundant bus stops. By removing stops that are too close together overall bus travel time is reduced.

I would like to make a final comment about our "societal choice to have a good bus system". Mass transportation was originally provided by private enterprise. Our government's current monopoly of the mass transportation business was only accomplished by legislation and regulation, not by the government providing better service than the private sector. If private enterprise were allowed to compete for mass transit customers we would very likely have a more responsive transportation system and at an lower overall cost.

Sincerely Yours,

Mark A. Monoscalco

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00600

November 13, 2002

Mr. Mark A. Monoscalco
430 Lewers Street, #23D
Honolulu, Hawaii 96815-2421

Dear Mr. Monoscalco:

Subject: Primary Corridor Transportation Project

This is in response to your April 18, 2002 letter and your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I wish to voice my opposition to the current proposal for the In-Town Bus Rapid Transit. Two aspects of the current proposal will increase traffic congestion.*

   Response: Comment noted.

2. *First the use of existing traffic lanes for the exclusive use of BRT will reduce the capacity of the streets for travel by all other types of vehicles.*

   Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined Locally Preferred Alternative (LPA) than it would be with the No-Build or Transportation System Management (TSM) Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

3. *Second, giving traffic signal priority to BRT will cause increased traffic congestion on all streets that the BRT crosses.*

   Response: The potential for the BRT vehicles to extend the green phase will only be implemented at locations where it will not significantly impact cross street traffic.

4. *The design premise of this project is biased against automobile use. Providing alternatives to the private automobile is the stated purpose of this project (see DEIS S.1).*

   Response: The PCTP has focused on the transit portion of the island-wide transportation plan. Highway improvements have been addressed in the OMPO regional plan update (TOP 2025).

5. *The proper purpose of this project should be to reduce overall traffic congestion.*

   Response: Which it will do.

6. *If the exclusive bus lanes are put into operation and the BRT is allowed to interrupt traffic signals, the motoring public will become outraged at the increase in traffic congestion. This outrage will follow the same pattern as the reaction to the recent traffic camera program. Predictability, the results will be the same. After enough public complaint, the City and County will be forced to remove the priority lanes and discontinue use of traffic signal interruption. This will mean that all money spent on construction of the priority lanes and traffic signal interruption equipment will be lost. In addition more money will need to be spent to remove the priority lanes.*

   Response: Comment noted.

7. *Our current traffic system would benefit greatly from the following improvements:*
   1. *Street widening – additional lanes for all type of vehicle traffic.*
   2. *Intersection channelization – left and right turn bays with turn arrows.*
   3. *Bus pullouts – allow a turn out lane for the Bus to load and unload passengers.*
   4. *Coordinated traffic signals – using real time traffic data to change signal cycles.*

   Response: 1.) Additional lanes at bottleneck locations could be beneficial. General lane widening to increase overall roadway capacity would be a temporary fix, not a long-term solution. 2.) Left and right turn bays do help traffic flow at intersections, and the Refined LPA implements them where feasible along the In-Town BRT alignment. 3.) Bus pullouts are recommended in the Refined LPA in the Dillinghem Boulevard and Kuhio Avenue corridors to reduce the impacts of local buses on general traffic. 4.) The City has a state of the art traffic management center. It also has an ongoing traffic signal optimization program. Given the large number of traffic signals in Honolulu, it will take time to optimize all of the signals, but the process has been initiated and the public will see benefits from the program in the near future.

8. *The following streets could be upgraded to increased traffic capacity:*
   1. *Auahi St. from South St. to Queen St.*
   2. *Queen St. from Nimitz Hwy to Kamakee St.*
   3. *McCully St. from H-1 to Kalakaua Blvd.*
   4. *Bingham St. from Punahou St. to McCully St.*
   5. *Punahou St. from King St. to Philip St.*
   6. *Ward Ave. from H-1 to King St.*
   7. *Lusitenie St. from Punchbowl St. to Kinau St.*

   Response: The City continues to look for ways to improve its roadway system. These suggestions will be incorporated into the City's on-going review. It should be noted that the routing of the University Branch of the Refined LPA was relocated from Ward Avenue to Pensacola Street because of concerns regarding the capacity of Ward Avenue.

9. *The Bus system could be improved by applying the following suggestions:*
   1. *Using global positioning satellite receivers on each bus to provide real time bus locations. This will allow real time bus scheduling to eliminate bus bunching (when several buses are traveling the same route close together).*
   2. *Using the GPS data to display real time bus arrival schedules at each bus stop.*
   3. *Eliminate redundant bus stops. By removing stops that are too close together overall bus travel time is reduced.*

   Response: 1.) GPS is already installed on buses and real-time bus schedule kiosks are also planned. 2.) The City is currently reviewing various intelligent transportation system (ITS) elements that could eventually be integrated into the City transit system. 3.) Local bus stops are

closely spaced to provide maximum transit access. To decrease transit travel time, limited stop bus service such as the CityExpress! has been introduced. The proposed BRT included in the Refined LPA is the next step in providing even faster service.

10. *I would like to make a final comment about our "societal choice to have a good bus system." Mass transportation was originally provided by private enterprise. Our government's current monopoly of the mass transportation business was only accomplished by legislation and regulation, not by the government providing better service than the private sector. If private enterprise were allowed to compete for mass transit customers we would very likely have a more responsive transportation system and at a lower overall cost.*

    Response: The reason that the City took over the bus system is that the private sector could no longer make a profit running it and were in the process of abandoning all but the profitable routes. Since a significant segment of the population is dependent on transit for their mobility, the City with the public's support stepped in to ensure that these people would not be left immobile. There is a role for the private sector in the Refined LPA, which is to provide contracted circulator services.

11. *I've been a resident there (Waikiki) for over 13 years. I wish to voice my opposition to the current proposal for the In-town Bus Rapid Transit.*

    Response: Comment noted.

12. *First, the use of existing traffic lanes for the exclusive use of the BRT will reduce the capacity of the streets for travel by all other types of vehicles.*

    Response: See response to comment #2.

13. *Second, giving traffic signal priority to BRT will cause increased traffic congestion on all streets that BRT crosses.*

    Response: See response to comment #3.

14. *The design premise of this project is biased against automobile use. Providing alternatives to the private automobile is the stated purpose of this project, and that is listed in the DEIS, section one.*

    Response: The Supplemental Draft Environmental Impact Statement (MIS/DEIS), SDEIS, and FEIS Chapter 1 state the purposes of the Primary Corridor Transportation Project as:
    1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile.
    2. Support desired development patterns.
    3. Improve the transportation linkage between Kapolei, which is envisioned to be the "Secondary Urban Center" of Oahu, and Honolulu's Urban Core.
    4. Improve the transportation linkages between communities in the Primary Urban Center (PUC) to increase the attractiveness of in-town living.

15. *I believe the proper purpose of this project should be to reduce overall traffic congestion.*

Response: The BRT project alone cannot reduce overall traffic congestion. The Oahu Metropolitan Planning Organization's (OMPO's) Transportation for Oahu Plan, TOP 2025 presents the transportation projects, including the Refined LPA, that collectively will help alleviate traffic congestion.

16. *If the exclusive bus lanes were put into operation and BRT is allowed to interrupt traffic signals, the motoring public will become outraged at the increase in the traffic congestion. I believe this outrage will follow the same pattern as the reaction to the recent traffic camera program. Predictably, the results will be the same. After enough public complaint, the City and County will be forced to remove the priority lanes and discontinue use of traffic signal interruption.*

    This will mean that all of the money spent on the construction of the priority lanes and traffic signal interruption equipment will be lost. In addition, more money will need to be spent to remove the priority lanes.

    Response: Comment noted.

17. *I would like to make some suggestions to improve our current traffic system. I believe we would greatly benefit from the following improvements: Street widening, additional traffic lanes for all types of vehicles.*

    Response: See response to comments #7 and #15. The TOP 2025 plan includes street widening and additional traffic lane projects.

18. *Suggestion two would be intersection channelizations, adding left and right turn lanes, with turn arrows.*

    Response: See response to comments #7 and #15. The TOP 2025 plan includes intersection improvement projects.

19. *Suggestion three, bus pullouts, allow a turn-out lane for the bus to load and unload passengers without blocking traffic lanes.*

    Response: Bus turnouts will be installed along sections of Dillingham Boulevard and Kuhio Avenue.

20. *And suggestion four, coordinated traffic signals, by using reelime traffic data to change traffic signal times.*

    Response: The City's In-town traffic system has this capability now.

21. *I believe the following streets could be upgraded to increase traffic capacity. From South Street to –*

    Response: See response to comments #8 and #15.

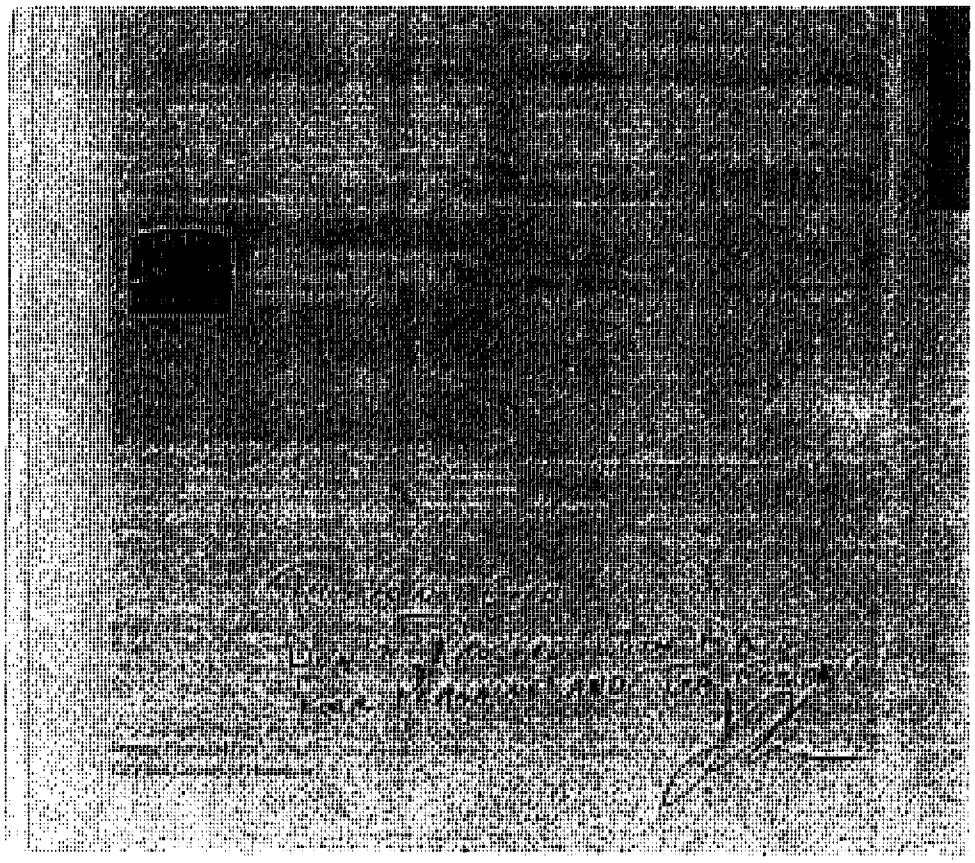
22. *I'd like to make a final comment about a quote that's been in the paper about our societal choice to have a good bus system. Mass transportation was originally provided by private enterprise. Our government's current monopoly of the mass transportation business was only accomplished by legislation and regulation, not by government providing better service than the private sector. If private enterprise were allowed to compete for mass transit customers, we would very likely have a more responsive transportation system and at an overall lower cost.*

    Response: See response to comment #10.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director



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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00601

November 13, 2002

Mr. Jack Morse
700 Richards Street, #1706
Honolulu, Hawaii 96813-4605

Dear Mr. Morse:

Subject: Primary Corridor Transportation Project

This responds to the comment you made on the Supplemental Draft Environmental Impact Statement (SDEIS).

This is not good. Don't proceed with BRT. Poor planning and too costly.

Response: Comment noted.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

October 25, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City & County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

RE: Oahu's Trans 2K Mass Transit System Plan

Dear Ms. Soon:

I, am writing to you in response to the different types of transportation systems slated for the island of Oahu for the state of Hawaii. I do not drive and am solely dependent upon the transportation systems of Hawaii like, the buses (regular & express services), the taxicabs and sometimes catching a ride with my friends that drive. **I am in support of the TSM (Transportation System Management) for the Urban Honolulu areas, with a partial BRT (Bus Rapid Transit) servicing the Suburbs to bring commuters to Urban downtown.** It makes sense to bring in people from the Suburbs rapidly using the High Occupancy Vehicle or the Zipper lanes to the downtown areas or transfer at transit centers to another transit vehicle closer to your destination (i.e. regular service or express buses) via a transit vehicle. The heavily used streets of Urban Honolulu servicing both the public and private sectors are not as wide across as some of the other cities in the continental United States like Boston, Albany, New Orleans, Miami, etc. The streets in Urban Honolulu are used by private & commercial vehicles such as cars, vans, mini-buses, buses, mopeds, trolleys,

motorcycles and bicycles. In fact, the number of trolley services and routes have increased in the last few years due to tourist vacationing and having their Wedding ceremonies in Hawaii. If a BRT (bus rapid transit) system is chosen, 2 – 2-1/2 lanes of the street will be converted to dedicated lanes for the transit vehicles as well as a median strip to unload & pick-up passengers as explained by the engineer of the project. Closing of 2 lanes of traffic, especially on busy, busy Dillingham Boulevard will have serious problems as only 1 lane of traffic is opened for travelers going East and the other 1 lane for travelers going West. The problem also persists on Kalakaua Avenue in the heart of Waikiki district near the famous Waikiki & Kuhio beach areas. Previously 4 lanes of traffic headed towards the east, now 1 lane of traffic has been changed to a curb for trolleys and private tour vehicles to load & unload passengers. If 1 more lane or traffic is changed to a dedicated lane for the Transit vehicle, only 2 lanes of traffic will serve everyone else.

ADDITIONAL PROBLEMS which need to be addressed:

1. The type of BRT system the City & County of Honolulu is proposing will consist of electric embedded plates on the dedicated lanes which will activate the tram whenever the protruding metal strip touches the electric plates. QUESTION: what happens when there are water main breaks on the road as has been happening recently in Honolulu (many water pipes are 40 – 60 years old and in dire need to be replaced). In fact on Monday, October 23rd, there was a water main break on Kuhio Avenue again. About 3 – 4 months ago, there were 3 major water main breaks on the main thoroughfare of Kapiolani Boulevard in

About a 1 month period. The Board of Water Supply crew worked throughout the night & day, but took longer than usual, due to underground electric and cable wiring under the streets. These are just 2 of the proposed streets to be converted to a IN-TOWN BRT system lane. Will the transit vehicle be electrically charged and harmful to anyone on the tram? What about people with Pacemakers?

2. The dedicated lanes will be solely used by the transit tram, that anyone who wishes to make a left turn into a driveway, must approach a dedicated intersection, then make a U-turn and return in the opposite direction to enter the intended driveway, even though it is several blocks away.

3. If there is a traffic accident or a stalled vehicle on the street, how will drivers be able to proceed around the accident, if only 1 lane of traffic is opened? How would emergency vehicles like the police, ambulance and fire trucks be able to pass? Will everyone be allowed to use the dedicated lanes also?

4. Is there enough room for large commercial, construction, military vehicles, machineries, and semi-trucks with containers – since some of them require 1 – 2 lanes of traffic to maneuver on the roads. How would these huge vehicles be able to make wide right turns because of the way they are manufactured and cannot infringe onto the dedicated lanes?

5. Is there enough space on the median strips for passengers including the elderly, physically handicapped, adults with babies, bicyclists and wheelchair bound to

load and unload on the transit platforms? I wonder how people with wheelchairs will be able to unload out of the trams, as someone else in a wheelchair boards the tram, causing massive jam on the median strip?

6. The intervals between transit trams is unrealistic. The time limit is between 4 – 8 minutes and between 2 – 4 minutes during rush hour. I clocked the time it took passengers riding the Ala Moana Center Shuttle bus to unload and board at the major Ala Moana Center transit center stop. The time it took a full to capacity bus (these are not the articulated buses that are used for express routes) filled with of 65 passengers to unload from the front & back doors and for 20 passengers to board the bus was approximately 2 minutes. On another day, it took 60 passengers to unload and 25 passengers to board the bus approximately 3 minutes. These were healthy young to middle aged passengers, no one requiring extra time to stow away their bicycle, parents carrying babies, carrying baby strollers, diaper bags or wheelchair bound passengers. What happens when you encounter passengers that require additional attention and time before the bus driver may leave the transit area? How can you justify the timetable? It is a vital transportation link for those on fixed income and movement is not as flexible as others. Many other factors are involved in the timetable. The driver of the bus route is asked for directions, which bus will take people to their destination, if transfers are needed – directions on transfer points, explanation of Express buses with it's limited stops – especially elderly citizens and foreigners who don't understand English nor the word ?Express"

Even though through Mayor Harris's visioning team expressed a mass transit system about 2 years ago, the communities that will be affected by the Mass Transit were never consulted or any information given till September 26, 2000. Additional informational meetings and public hearings were held on October 2nd, 5th, 23rd and 26th. The general public has till November 6, 2000 to respond and submit written testimony The City & County of Honolulu Transportation Department planners, engineers, consultants spoke of 3 mass transit proposals as in the planning stage, but the presentations I have seen is leaning towards the BRT & In-Town BRT System (electric plates embedded on the streets to power the transit vehicles) – even though only 1 city in Italy is currently using it nor has it been formally approved as the system best for the Island of Oahu in the state of Hawaii. There have not been any other tests conducted to compare the effectiveness of this particular system. I understand that several drivers were approached earlier this year to be drivers for the TRANSIT TRAM vehicles prior to any decision on which of the 3 mass transit alternatives best fits towards the year 2025 for the Island of Oahu as the population continues to grow in certain areas like Kapolei. Urban Honolulu is very congested due to the fact that the majority of Oahu's population work, live, play and drive their vehicles as well as influx of Major Office buildings, restaurants, parking lots, condominiums, houses, parks and attractions for the visitor industry. The vicinity of Kapolei and other Suburb cities on Oahu are still vast open areas and is starting to develop as a 2nd Major City and better suited for dedicated lanes or use of Zipper lanes to accommodate the BRT system proposed by the City & County Transportation Department and the Visioning Team.

There is a trend for the population in Hawaii to work out of their own homes using their computers to do business on the Internet like banking, communicate, reference, shop, etc. The people living in the suburbs & Urban Honolulu may also utilize the community shops and services, but occasionally need to travel to downtown or other districts of Oahu. The people that need to commute will utilize the MASS TRANSIT Services– either with a direct route or transfer at transit centers to buses that will take them closer to their destinations. Sometimes, it may take longer via the regular bus routes (due to frequent stopping at each bus stop) or it may be shorter and takes less time then traveling on a BRT tram route as several transfers maybe needed to reach their destination. Once on the TRAM the ride is faster (due to limited stops) – BUT **THE KEY IS THE PASSENGER MUST BE ON THE TRAM** and not be waiting for a tram or a bus at the transit centers to experience such a faster timetable to reach their destination. On 1 occasion, I caught a bus to get to City Express B bus stop in Waikiki. I waited 5 minutes for the Express "B" Bus, then I reached Downtown Honolulu in 9 minutes, finally walked for 3 minutes to Longs Drugs Store for a total travel time of 17 minutes. If I catch the regular bus to Longs Drugs Store it takes approximately 20 – 27 minutes with the bus stop located directly across the street. The Express Bus system may save time in reaching your destination, but it also depends whether I have bulky & heavy packages to carry then I would prefer to catch only 1 bus rather then to catch several different buses to get home faster. **It's a matter of convenience or time factor.** This is the same argument with the IN-TOWN BRT System – the difference is that the Transit stops are farther apart

because there are less stops along the route, but how much more of an inconvenience is it to wait & transfer to other transit vehicles (maybe 2 – 3 more) at the Transit stop?

I support the BRT (Bus Rapid Transit) System from the Suburb to Urban Honolulu, then use the Transportation System Management system for Urban Honolulu. It could expand the City Express routes A, B & Country Express C with very limited bus stops), other express route services and by consolidating some of the regular bus routes into express routes for Urban Honolulu. The City & Country Express has been operating for about 2 months, starting from August 20, 2000, and is not fully tested to its full capacity. The BRT System from the suburbs may use some other type of tram that is environmental friendly and that does not need to use an electric plates embedded into the street. It need not be a system that does require dedicated lanes (which tears up the streets, trees planted on the median strips need be removed, motorist will not be able to turn left into the driveways, etc.) It may also pick-up passengers from the safety of the curb – especially for the elderly parents with babies, for children, bicycle riders, wheelchair bound as well as the other handicapped (blind) passengers. Why is the City & County of Honolulu pushing for a RAPID TRANSI SYSTEM (OR IS IT A LIGHT RAIL SYSTEM?) that will use an embedded plate system, is it a possibility that a private developer or contractor is anxiously approaching the City & County to consider their system & products?

Important decisions require time, careful study, careful planning and consideration with many factors and variables that will affect the transportation flow for

the general public as well as thousands of visitors that will visit and use the transit system of the State of Hawaii, as a very unique and special place, much smaller than Atlanta, New York, Los Angeles, San Francisco and other major cities. The system that Works beautifully for their cities, may not necessarily be the right one for the Island of Oahu. Hawaii is a tourist oriented destination of which the Transit System will need to compete with private tour vans & buses, private trolleys, bicycles and other means of transportation in Urban Honolulu.

Thank you for the opportunity.

Daisy M. Mural

Daisy M. Mural
A CONCERN BUS RIDER & CITIZEN

APR 2 0 2002

April 20, 2002

Ms. Cheryl Soon, Director
Department of Transportation Services
City and County of Honolulu
650 S. King Street, 3rd floor
Honolulu, Hawaii 96813

RE: Final Draft Environmental Impact Statement –Bus Rapid Transit

I, Daisy Murai, a tax payer, resident of Kapahulu and whose main mode of transportation is via Oahu Transit Services TheBus System. I **DO NOT SUPPORT the IN-TOWN BRT** portion of the Bus Rapid Transit plan. I am in full support of a Bus Rapid Transit system for the areas outside of the Primary Urban Center of Honolulu. There is at least 1 traffic accident caused from motorist traveling to and from the outskirts of Honolulu to the Downtown area almost on a daily basis. This is the area of major traffic congestion in the mornings and afternoons and they deserve first preference to relieve congestion.

The In-Town BRT plans have many more factors to consider that will require extensive, detailed planning and design. There are several problems that I find that have not been addressed and taken into consideration for the Downtown streets.

1) Implanting electronic metal strips on the streets for exclusive or shared usage by the BRT tram or vehicle.

   A) Have all the streets (Pensacola, Alakea, Bishop, Dillingham, Ala Moana, University, etc) been up-graded to handle the extra load on the streets (sewer lines, water pipes, cable wires) or will they be fixed when the electric plates are embedded on the streets – adding more expense? Presently, there have had almost 1 water main break per week
   somewhere on the Island of Oahu. Some have been major breaks (ie. McCully & Kapiolani corner) Every break on the street, the tram will not proceed and repairs galore. – major problems!

   B) On the shared lanes, is the problem of picking-up trash by the private refuse companies for tenants affected being addressed and solved? (Trash bins are left on the streets in the morning on Alakea, Bishop, Ala Moana, Kuhio Avenue, etc.-due to not enough space to maneuver the huge trucks) This problem will also hamper passengers loading and unloading from vehicles, as wells as vendors delivering their products.

   C) Will salt water corrode the metal strips? The corner of Saratoga and Kalia Roads, the salt water from the ocean surges onto the road through the storm drain whenever there is high tide.

2) Time Schedule – is very unrealistic

   A) 2, 4, 6, 8 minute intervals during peak hours of the day is very unrealistic. It does not give the riders enough time to depart and board (even able bodied passengers – refer to my first testimony on Ala Moana Shuttle bus route No. 8 – where it took 3 - 4 minutes to unload a full to capacity of 60 – 65 able bodied passengers). It is not taking handicap passengers into account – especially if there are wheelchair bound (sometimes they require 10 minutes to settle into their seats). This will also prevent the handicap, senior citizens and wheelchair bound passengers from boarding – ADA rule not followed. It is not taking into account passengers with baby strollers who require additional time to settle into their seats.

   B) If the interval between trams are too short (to prevent an overlap of the next tram traveling on the same route), very few passengers will be able to board per tram. The transit service will not be efficient nor profitable, causing higher maintenance costs, increase in the fares, higher taxes, higher service fees and even less tram services This defeats the purpose of the transit service as a high capacity people mover.

   C) The City & Country Express system is great for getting around Oahu, but even that system is has an overlap of busses catching up to the bus in front. Sometimes, the next bus is with-in 1 minute of the earlier bus.

3) Routes

   A) Has a scientific survey being conducted with tests to determine which areas need this system more than others? Has a trial test being conducted before implementation – where all the minuet problems

   B) Some streets needs to be expanded to accommodate the BRT System, have theses being addressed?

   C) Has the **impact on neighboring streets and neighborhood being addressed**– if the motorists decide to avoid BRT lanes on Dillingham, Kapiolani, Ala Moana, University, Kalakaua and Kuhio Avenues, etc. and travel through the adjacent neighborhoods? This is the same approach as a CTAP project where motorist have taken side streets when they spot a CTAP project in operation (police officers with radar guns checking the speed of the automobiles and residents holding-up signs to slow down and drive carefully).

   D) Traffic gridlock, accidents and road rage will occur in the Primary Urban Center of Honolulu due to the narrowness of the roadways, unlike other larger metropolitan cities that can accommodate many more lanes of traffic than Oahu.

AR00015977

FDEIS Testimony 4/20/2002

Educating the general public, more public input, testing and re-testing are vital and crucial elements to make the BRT System work. Without addressing these important input from the general public and specialists. the transit problems will never be solved. If this is the best, most efficient, most reliable, most affordable, most convenient transit system for Oahu, then everyone connected with this particular system should get out of their cars and commute utilizing the BRT System on a daily basis.

Thank you for the opportunity to speak.

Daisy Murai
3039 Kaunaoa Street
Honolulu, Hawaii 96815

cc: Genevieve Salmonson, Director – Office of Environmental Quality Control, State of Hawaii

May 3, 2002

Ms. Cheryl Soon, Director
Dept. of Transportation Services
City and County of Honolulu
650 S. King Street, 3rd Floor
Honolulu, Hawaii 96813

MAY - 6 2002

RE: Primary Corridor Transportation Project
Island of Oahu, Hawaii (SDEIS)

Dear Ms. Soon,

I have enclosed additional comments to the Supplemental Draft Environmental Impact Statement (SDEIS) on the Bus Rapid Transit (BRT) system.

These additions are copies that I submitted to Ms. Donna Turchie, Senior Transportation Representative of the Federal Transit Administration, Region IX, and to Ms. Genevieve Salmonson, Director – State of Hawaii, Office of Environmental Quality Control.

Thank you for the opportunity to respond from a private citizen who rides the bus daily.

Daisy M. Murai

Daisy M. Murai
3039 Kaunaoa Street
Honolulu, Hawaii 96815

AR00015978

May 3, 2002

Ms. Donna Turchie
Senior Transportation Representative
Federal Transit Administration
Region IX
U. S. Department of Transportation
201 Mission Street, Suite 2210
San Francisco, CA 94105-1839

RE: SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT
TESTIMONY FOR HONOLULU, HAWAII & ISLAND OF OAHU
BUS RAPID TRANSIT (BRT)

Dear Ms. Turchie:

Enclosed is my written testimony that I presented at the Transit Public Hearing on April 20, 2002 at the Hawaii Convention Center in Honolulu, Hawaii. This is the testimony City & County of Honolulu Transportation Director, Cheryl Soon and State of Hawaii Office of Environmental Quality Control Director Genevieve Salmonson both received.

I still oppose the In-Town BRT portion of this mass transit system plan for the Primary Urban Center of Honolulu and the Island of Oahu presented on the Supplementary Draft Environmental Impact Statement. This phase should wait till outside areas of Honolulu have their traffic congestion problems solved first before attempting to proceed with the In-Town route from Iwilei to Waikiki as proposed by City Director Soon & City Council Transportation Committee Chairperson Bainum.
The water & sewer pipes in Honolulu have not been up-graded for years as countless number of water main pipes have broken with-in the last 3 years, due to wear and tear as heavier motor vehicles (trolleys, buses, limousines, trucks, SUV) use the roadways. These are the very streets that the City wish to start the Bus Rapid Transit System, with no mention of up-grading the roadways before commencing with this most ambitious project.

The first priority should encompass the areas outside of Urban Honolulu, as these are the areas most affected by traffic gridlock for Monday – Friday commuters. I feel that this is where the transit plans should be implemented first.

The time intervals between trams are very unrealistic. My main mode of transportation is riding the City Buses to my destinations. I timed 60 – 65 able bodied persons getting off the bus No. 8 Shuttle Bus between Waikiki and Ala Moana (Shopping) Center. It took 3 – 4 minutes for passengers to get off and another 4 – 5 minutes for passengers to get on the bus to travel back to Waikiki with their bags and boxes of purchases, as well as families with baby strollers and toddlers. This does not take into account handicap passenger that need extra time. The time intervals as proposed by the City & County of Honolulu of 2, 4, 6, 8 minutes during rush hour

are totally unrealistic. A wheelchair rider needs 5 – 10 minutes to settle into his or her seat from the curbside loading platform. If the rush hour intervals are followed, very few passengers will be able to board or get off the trams, as the next one is right behind it. The trams will cause gridlock and not be able to keep up with the time schedule.

The loading platforms for passengers in the middle of the streets will not be large enough to accommodate free movement for passengers with wheelchairs, baby stroller, walkers and folding shopping carts. In Japan. I witnessed in certain areas that utilize boarding platforms in the middle of the streets crammed pack with students waiting for their buses - sometimes with barely room to spare. I shudder to think what may happen when the students are inattentive to the surrounding traffic while on the boarding platform. What happens when toddlers and children stray from their parents.

I also see problems of jaywalkers from young to old in certain parts of Honolulu – like Downtown, Chinatown, Kapiolani Boulevard and especially in Waikiki. People are rushing to catch a certain bus, in a hurry or inattentive to the surrounding traffic. These are problems facing Honolulu presently.

I'm sure that the best engineers, consultants and experienced personnel have spent countless hours of planning, preparing, cross examining to study the huge impact created by such a massive mass transit system, but public input is also crucial and vital, as these are the people who will use and be most affected by this project. Educating the public, testing and re-testing are important aspects not to be taken for granted.

I suggest that all those connected with the project and those in support utilize the In-Town BRT system. Riders want the most direct route and closest to their destinations, rather than spend time waiting at transit centers for their connecting tram. If the ridership is low, the fees will increase to a point many people will not be able to afford to ride the BRT in the future. The heavy burden to maintain the BRT will fall on the tax payers of Hawaii.

Thank you for your attention.

Daisy M. Murai

Daisy M. Murai
3039 Kaunaoa Street
Honolulu, Hawaii 96815

cc: City & County of Honolulu Transportation Director, Cheryl Soon
cc: State of Hawaii Office of Environmental Quality Control Directory Genevieve Salmonson

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

November 13, 2002

TPD10/00-05219R
TPD5/02-01802R

Ms. Daisy M. Mural
c/o Kapahulu Neighbors
3039 Kaunaoa Street
Honolulu, Hawaii 96815

Dear Ms. Mural:

Subject: Primary Corridor Transportation Project

This is a combined response to your comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your October 25, 2000 letter regarding the MIS/DEIS. Part B responds to your April 20, 2002 letter, your oral testimony at the SDEIS April 20, 2002 Public Hearing, and your May 3, 2002 letter regarding the SDEIS.

Part A – MIS/DEIS Comments

1. *I am in support of the TSM (Transportation System Management) for the Urban Honolulu areas, with a partial BRT (Bus Rapid Transit) servicing the Suburbs to bring commuters to Urban downtown. It makes sense to bring in people from the Suburbs rapidly using the High Occupancy Vehicle or the Zipper lanes to the downtown areas or transfer at transit centers to another transit vehicle closer to your destination (i.e., regular service or express buses) via a transit vehicle.*

   Response: Comment noted. It states the commenter's preference for an LPA.

2. *If a BRT (bus rapid transit) system is chosen, 2 - 2-1/2 lanes of the street will be converted to dedicated lanes for the transit vehicles as well as a median strip to unload & pick up passengers as explained by the engineer of the project. Closing of 2 lanes of traffic, especially on busy, busy Dillingham Boulevard will have serious problems as only 1 lane of traffic is opened for travelers going east and the other 1 lane for travelers going west.*

   Response: The BRT Alternative is comprised of a mix of exclusive BRT, semi-exclusive BRT and mixed-use lanes. The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly effected, exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes, exclusive transit lanes were retained such as on Dillingham Boulevard. To reduce impacts to general-purpose traffic on Dillingham Boulevard, 18-foot-wide lanes are proposed between Puuhale Street and Waiakamilo Road. Eighteen-foot-wide lanes will permit vehicles to go around buses stopped at the curb and right-turning vehicles. Separate left-turn/U-turn lanes will also be provided at signalized intersections. To preserve the True Kamani trees, instead of 18-foot lanes between Waiakamilo Road and Kaaahi Street turnouts will be provided for local buses.

Because of the diversion of people from autos to transit, even with the BRT lanes, the traffic LOS along Dillingham Boulevard will be equal to or better than conditions with the No-Build Alternative. Additionally, traffic LOS on parallel streets such as N. King Street and Nimitz Highway will be equal to or in most cases better with the BRT lanes on Dillingham Boulevard than without them.

Moreover, the exclusive BRT lanes on Dillingham Boulevard will enable Dillingham Boulevard to carry 3 times the number of people that it can carry today.

3. *The problem also persists on Kelekeue Avenue in the heart of Waikiki district near the famous Waikiki & Kuhio beach areas. Previously 4 lanes of traffic headed towards the east, now 1 lane of traffic has been changed to a curb for trolleys and private tour vehicles to load & unload passengers. If 1 more lane or traffic is changed to a dedicated lane for the Transit vehicle, only 2 lanes of traffic will serve everyone else.*

   Response: With the Refined LPA, the lane designation on Kalakaua Avenue between Saratoga Road and Ulunlu Avenue will be three mixed-traffic lanes and a semi-exclusive curb lane shared by the BRT, private buses and right-turning autos. On Kalakaua Avenue between Ulunlu Avenue and Kapahulu Avenue (i.e. by Kuhio Beach), the BRT will operate in mixed traffic so there will be no change from today in the lane configuration.

4. *The type of BRT system the City & County of Honolulu is proposing will consist of electric embedded plates on the dedicated lanes which will activate the tram whenever the protruding metal strip touches the electric plates. QUESTION: what happens when there are water main breaks on the road as has been happening recently in Honolulu (many water pipes are 40 - 60 years old and in dire need to be replaced). Will the transit vehicle be electrically charged and harmful to anyone on the tram? What about people with Pacemakers?*

   Response: The electrical conductor will be insulated under the ground so that there will be no harmful effects. Additionally, the EPT vehicles will be capable of operating under battery power for short distances, so they will be able to negotiate around any temporary blockages while a broken water main is being repaired.

   The manufacturer will be required to develop a method to insulate passengers with Pacemakers from electromagnetic impacts.

5. *The dedicated lanes will be solely used by the transit tram, that anyone who wishes to make a left turn into a driveway, must approach a dedicated intersection, then make a U-turn and return in the opposite direction to enter the intended driveway, even though it is several blocks away.*

   Response: In the case that the BRT lane is located in the middle of the roadway, such as Dillingham Boulevard, left-turns and U-turns are allowed only at designated locations for purposes of vehicle safety. Where the BRT lane is adjacent to the curb, crossing of the lane by other vehicles is allowed.

6. *If there is a traffic accident or a stalled vehicle on the street, how will drivers be able to proceed around the accident, if only 1 lane of traffic is opened? How would emergency vehicles like the police, ambulance and fire trucks be able to pass? Will everyone be allowed to use the dedicated lanes also?*

   Response: The two candidate technologies, embedded plate and hybrid propulsion, both provide the flexibility to operate outside of the designated BRT lanes and therefore can easily maneuver

around accident sites, emergency vehicles and traffic. Also, the proposed network of exclusive and semi-excusive BRT lanes would greatly enhance emergency vehicle response times providing an uncongested lane for such vehicles to reach incident locations. With proper emergency traffic signal preemptions in place, BRT vehicles would be able to move out of the exclusive lane at the nearest intersection to allow emergency vehicles to pass through the intersection unimpeded by either left turning or cross street traffic.

There are no plans for mixed-traffic to utilize exclusive BRT lanes, however, in the case of an emergency police will handle traffic flow on a case-by-case basis.

7. *Is there enough room for large commercial, construction, military vehicles, machineries, and semi-trucks with containers – since some of them require 1 - 2 lanes of traffic to maneuver on the roads. How would these huge vehicles be able to make wide right turns because of the way they are manufactured and cannot infringe onto the dedicated lanes?*

   Response: Generally there will not be any barriers on the exclusive lanes that are not crossable. Larger vehicles that have larger turning radii can infringe temporarily on the exclusive lanes to complete their turns.

8. *Is there enough space on the median strips for passengers including the elderly, physically handicappad, adults with babies, bicyclists and wheelchair bound to load and unload on the transit platforms? I wonder how people with wheelchairs will be able to unload out of the trams, as someone else in a wheelchair boards the tram, causing massive jam on the median strip?*

   Response: The platforms are approximately eight feet wide by 160 feet long. The ADA standard requirement for wheelchair maneuverability is an area eight feet by five feet. There will be sufficient room for ingress and egress on and off the bus. Additionally, there will be at least two boarding and exiting doors on the bus. Boarding and exiting by wheelchair will be much easier than today since the floor of the bus and the passenger platform would be at the same height. A "bridge plate" that extends out from the floor of the bus when the door opens will bridge the gap between the bus and platform, such that no wheelchair lift will be required.

9. *The intervals between transit trams is unrealistic. The time limit is between 4 - 6 minutes and between 2 - 4 minutes during rush hour. What happens when you encounter passengers that require additional attention and time before the bus driver may leave the transit area? How can you justify the timetable?*

   Response: As indicated in response to comment #8, because of prepayment of fares passengers will be able to both enter and exit from both doors on the vehicle. They also will be wider than standard doors. Additionally, since no wheelchair lifts are needed, dwell times at stops will be much shorter than today.

10. *Even though through Mayor Harris's visioning team expressed a mass transit system about 2 years ago, the communities that will be effected by the Mass Transit were never consulted or any information given till September 26, 2000.*

    Response: The Oahu Trans 2K public outreach process started in September 1998 and has continued through preparation of the FEIS. During this time hundreds of public meetings have been held throughout Oahu, with a focus on the communities along the primary corridor to inform

the public of the projects attributes and impacts and to elicit their input during the process. A full listing of the outreach activities is presented in Appendix A of the FEIS (Coordination and Consultation).

11. *The City & County of Honolulu Transportation Department planners, engineers, consultants spoke of 3 mass transit proposals as in the planning stage, but the presentations I have seen is leaning towards the BRT & In-Town BRT System (electric plates embedded on the streets to power the transit vehicles) – even though only 1 city in Italy is currently using it nor has it been formally approved as the system best for the Island of Oahu in the state of Hawaii. There have not been any other tests conducted to compare the effectiveness of this particular system. I understand that several drivers were approached earlier this year to be drivers for the TRANSIT TRAM vehicles prior to any decision on which of the 3 mass transit alternatives best fits towards the year 2025 for the Island of Oahu as the population continues to grow in certain areas like Kapolei.*

    Response: No decision has been reached on the final BRT technology. A final decision is not needed until 2008. Touchable embedded plate is one of the two options being considered. One of the criteria upon which a technology decision will be made is the experience of that technology in passenger service. The City Council will have the option of rejecting any technology that is not considered service proven. No bus drivers have been approached by the City to be drivers for the BRT system.

12. *The vicinity of Kapolei and other Suburb cities on Oahu are still vast open areas and is starting to develop as a 2nd Major City and better suited for dedicated lanes or use of Zipper lanes to accommodate the BRT system proposed by the City & County Transportation Department and the Visioning Team.*

    Response: This is what is proposed in the Refined LPA.

13. *The people that need to commute will utilize the MASS TRANSIT Services – either with a direct route or transfer at transit centers to buses that will take them closer to their destinations. Sometimes, it may take longer via the regular bus routes (due to frequent stopping at each bus stop) or it may be shorter and takes less time than traveling on a BRT tram route as several transfers may be needed to reach their destination. Once on the TRAM the ride is faster (due to limited stops) – BUT **THE KEY IS THE PASSENGER MUST BE ON THE TRAM** and not be waiting for a tram or a bus at the transit centers to experience such a faster timetable to reach their destination.*

    Response: We concur that passengers generally do not like to transfer. The travel demand forecasting models account for the fact that certain passengers will have a faster ride by taking local buses and avoiding transferring. The probability of a passenger selecting a given route is a function of total travel time by the chosen path, including penalties assigned for having to transfer.

14. *It's a matter of convenience or time factor. This is the same argument with the IN-TOWN BRT System – the difference is that the Transit stops are farther apart because there are less stops along the route, but how much more of an inconvenience is it to wait and transfer to other transit vehicles (maybe 2 - 3 more) at the Transit stop?*

    Response: The travel time savings including the transfers, with implementation of the Refined LPA will be, in most cases, faster than exists today. In outlying areas transit hubs will be established that allow for a pre-timed transfer between local circulator buses and BRT express

routes. The additional transferring in the Refined LPA will to a high degree be offset by these timed transfers, and by the more frequent, more comfortable, and more reliable service provided. In many cases the total travel time will be less with the Refined LPA.

15. *I support the BRT (Bus Rapid Transit) System from the Suburb to Urban Honolulu, then use the Transportation System Management system for Urban Honolulu. It could expand the City Express routes A, B & Country Express C with very limited bus stops), other express route services and by consolidating some of the regular bus routes into express routes for Urban Honolulu.*

   Response: Comment noted. It states the commenter's preference for an LPA.

16. *The BRT System from the suburbs may use some other type of tram that is environmental friendly and that does not need to use an electric plates embedded into the street. It need not be a system that does require dedicated lanes (which tears up the streets, trees planted on the median strips need be removed, motorist will not be able to turn left into the driveways, etc.) It may also pick up passengers from the safety of the curb – especially for the elderly parents with babies, for children, bicycle riders, wheelchair bound as well as the other handicapped (blind) passengers. Why is the City & County of Honolulu pushing for a RAPID TRANSIT SYSTEM (OR IS IT A LIGHT RAIL SYSTEM?) that will use an embedded plate system, is it a possibility that a private developer or contractor is anxiously approaching the City & County to consider their system & products?*

   Response: The embedded plate technology is only being considered for the In-Town BRT. Buses with diesel or hybrid diesel/electric power will be used in the outlying communities. No manufacturer is being given preferential consideration in the technology selection process.

17. *Important decisions require time, careful study, careful planning and consideration with many factors and variables that will affect the transportation flow for the general public as well as thousands of visitors that will visit and use the transit system of the State of Hawaii, as a very unique and special place, much smaller than Atlanta, New York, Los Angeles, San Francisco and other major cities. The system that works beautifully for their cities may not necessarily be the right one for the island of Oahu. Hawaii is a tourist oriented destination of which the Transit System will need to compete with private tour vans & buses, private trolleys, bicycles and other means of transportation in Urban Honolulu.*

   Response: From the outset the Primary Corridor Transportation Project has strived to develop a transit system that uniquely fits the special setting in Honolulu. The purpose of this system however is not to compete with the private transportation providers who very effectively serve the visitor market, it is to better serve the residents of Oahu and to give them a viable alternative to using private autos for certain trips.

Part B – SDEIS Comments

18. *I, Daisy Murai, a tax payer, resident of Kapahulu and whose main mode of transportation is via Oahu Transit Services TheBus System. I DO NOT SUPPORT THE IN-TOWN BRT portion of the Bus Rapid Transit plan. I am in full support of a Bus Rapid Transit system for the areas outside of the Primary Urban Center of Honolulu. There is at least one traffic accident caused from motorists traveling to and from the outskirts of Honolulu to the Downtown area almost on a daily basis. This is the area of major traffic congestion in the mornings and afternoons and they deserve first preference to relieve congestion.*

   Response: Comment noted. No response required because this is a statement of preference regarding supporting the Regional BRT and not the In-Town BRT.

19. *Have all the streets (Pensacola, Alakea, Bishop, Dillingham, Ala Moana, University, etc.) been upgraded to handle the extra load on the streets (sewer lines, water pipes, cable wires) or will they be fixed when the electric plates are embedded on the streets – adding more expense? Presently, there have have had almost one water main break per week somewhere on the island of Oahu. Some have been major breaks (i.e. McCully and Kapiolani corner). Every break on the street, the tram will not proceed and repairs galore – major problems!*

   Response: Provisions to upgrade the streets have been included in the cost estimates. Concrete lanes will be provided for exclusive and semi-exclusive BRT lanes prior to EPT. Provisions to protect utilities from additional traffic load will be incorporated when the concrete lanes are constructed.

20. *On the shared lanes, is the problem of picking up trash by the private refuse companies for tenants effected being addressed and solved? (Trash bins are left on the streets in the morning on Alakea, Bishop, Ala Moana, Kuhio Avenue, etc. – due to not enough space to maneuver the huge trucks.) This problem will also hamper passengers loading and unloading from vehicles, as well as vendors delivering their products.*

   Response: DTS will coordinate with building managers where such trash pick-up may need to be scheduled to avoid conflicts with the BRT. Moreover, the BRT vehicles will not be limited to operating in a fixed lane, but will be able to maneuver around obstacles such as trash dumpers left in the street.

21. *Will salt water corrode the metal strips? The corner of Saratoga and Kalia Roads, the salt water from the ocean surges onto the road through the storm drain whenever there is high tide.*

   Response: A non-corrosive metal will have to be used for the EPT plates.

22. *2, 4, 6, 8 minute intervals during peak hours of the day is very unrealistic. It does not give the riders enough time to depart and board (even able bodied passengers – refer to my first testimony on Ala Moana Shuttle bus route No. 8 – where it took 3 – 4 minutes to unload a full to capacity of 60 – 65 able bodied passengers). It is not taking handicap passengers into account – especially if there are wheelchair bound (sometimes they require 10 minutes to settle into their seats). This will also prevent the handicap, senior citizens and wheelchair bound passengers from boarding – ADA rule not followed. It is not taking into account passengers with baby strollers who require additional time to settle into their seats.*

   Response: Boarding and alighting will be much easier with the In-Town BRT. Passengers will be able to get on-and-off from a platform that is at the same height as the bus floor (13 inches) so that there will be no steps to negotiate. Also, because there will be prepayment of fares, passengers will be allowed to both enter and leave from any of 2 or 3 doors on the articulated buses. Passengers in wheelchair and scooters will be able to board and alight directly without the use of a lift. Passengers with baby strollers will also find it much easier to get on-and-off the bus. The net effect of these features is that dwell time at stops will be less.

23. *If the interval between trams are too short (to prevent an overlap of the next tram traveling on the same route), very few passengers will be able to board per tram. The transit service will not be efficient nor profitable, causing higher maintenance costs, increase in the fares, higher taxes, higher service fees and even less tram services. This defeats the purpose of the transit service as a high capacity people mover.*

    Response: See response to comment # 22.

24. *The City & Country Express system is great for getting around Oahu, but even that system is has an overlap of busses catching up to the bus in front. Sometimes, the next bus is within 1 minute of the earlier bus.*

    Response: Platooning of buses occurs whenever there is frequent service on a route and traffic conditions and other factors such as deploying a wheelchair lift slows down the flow of buses on that alignment. With priority lanes and level boarding for disabled passengers being part of the Refined LPA, these delays will be reduced and platooning, while it will still occur will not happen as often.

25. *Has a scientific survey been conducted with tests to determine which areas need this system more than others? Has a trial test been conducted before implementation – where all the minute problems*

    Response: Data from household surveys conducted by OMPO and forecasts of future land use were used in establishing current travel patterns and where future service would be most effective.

26. *Some streets need to be expanded to accommodate the BRT System, have these been addressed?*

    Response: Yes, and they are discussed in the MIS/DEIS, SDEIS, and FEIS Chapter 2.

27. *Has the impact on neighboring streets and neighborhood being addressed – if the motorists decide to avoid BRT lanes on Dillingham, Kapiolani, Ala Moana, University, Kalakaua and Kuhio Avenues, etc. and travel through the adjacent neighborhoods? This is the same approach as a CTAP project where motorists have taken side streets when they spot a CTAP project in operation (police officers with radar guns checking the speed of the automobiles and residents holding up signs to slow down and drive carefully).*

    Response: Chapter 4 of the FEIS addresses traffic impacts for each of the streets mentioned. It acknowledges that with the Refined LPA there will be additional impacts to some streets along the alignment, but that overall there will be more benefits to not only transit riders but motorists as well. With regard to impacts to neighborhood streets, most neighborhood streets are discontinuous and would not be used as an alternate route by through traffic. In the event a neighborhood street is impacted, there are a variety of traffic calming measures that can be used to mitigate the impacts.

28. *Traffic gridlock, accidents and road rage will occur in the Primary Urban Center of Honolulu due to the narrowness of the roadways, unlike other larger metropolitan cities that can accommodate many more lanes of traffic than Oahu.*

    Response: It is not the conversion of lanes that will create the congestion, the congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

29. *Educating the general public, more public input, testing and re-testing are vital and crucial elements to make the BRT System work. Without addressing these important input from the general public and specialists, the transit problems will never be solved. If this is the best, most efficient, most reliable, most affordable, most convenient transit system for Oahu, then everyone connected with this particular system should get out of their cars and commute utilizing the BRT System on a daily basis.*

    Response: Comment noted. No response required. The public involvement for this project began in 1998 and will continue throughout project development and implementation.

30. *I'm a citizen – a private citizen, member of the general public, and also, I live in Kapahulu, and I frequently use the bus system every day. In fact, I just came to the Convention Center from all the way down from the zoo area, catching the City Express B. It took 10 minutes. So that system really works, and I'm for that.*

    Response: We appreciate you attending the public hearing and that TheBus system is your preferred transportation method.

31. *I do not support the In-Town BART system – BRT system portion of the mass transit plan for Oahu. The areas outside the Primary Urban Center of Honolulu seriously need a transit system to get to Downtown and should be the first priority to ease their traffic congestion. They're the ones that always have those traffic accidents at least once a day.*

    Response: Comment noted. No response required because this is a statement of preference regarding supporting the Regional BRT and not the In-Town BRT.

32. *The In-Town BRT system has many unanswered questions that need to be addressed.*

    Response: Comment noted. No response required. The MIS/DEIS, SDEIS, and FEIS present the proposed project and associated impacts, benefits, and mitigations.

33. *One, are the sewer lines, water pipes, cable wires all upgraded? For example, remember the big, big water main break we had at the corner of McCully Street and Kapiolani? It took a full day before things could be rectified.*

    Response: Efforts to coordinate utility upgrades have been initiated and will continue during final design.

34. *Two, on shared curb lanes, like Bishop and Alakea, how would deliveries be made?*

    Response: BRT vehicles will not be operating in mixed traffic lanes on Bishop and Alakea Streets. BRT vehicles will be able to maneuver around parked delivery vehicles, just as existing buses do today.

35. *How would loading and unloading of passengers be handled?*

Response: Loading zones for commercial vehicles loading and unloading freight and passengers will be mitigated if the mitigation measures meet other livable community objectives and are the result of community-based planning. For example, as discussed in Section 4.4, some loading zone losses in Waikiki will be mitigated by creating turnout bays to allow passenger and freight loading during designated hours.

36. *Also, private rubbish pickup bins, they cannot maneuver within the parking lots, because it's too narrow, and they have to have the rubbish bins on the outside for pickup.*

Response: DTS will coordinate with building managers where such trash pick-up may need to be scheduled to avoid conflicts with the BRT. Moreover, the BRT vehicles will not be limited to operating in a fixed lane, but will be able to maneuver around obstacles such as trash dumpsters left in the street.

37. *Time schedule is also unrealistic. You say two, four, six, eight minutes. Unfortunately, if you catch the No. 8 shuttle to Ala Moana, it takes about four minutes for able-bodied people that are not handicapped, on wheelchairs, about four minutes just to depart. You really need four to ten minutes just to have someone on a wheelchair to get on the bus into their seats.*

Response: See response to comment # 22.

38. *Four, the impact on surrounding streets and neighborhoods should also be taken very seriously into consideration. For example – car system or a project with the police department, they find that people would bypass that street that's doing CIP projects, because they know they're going to get in trouble for speeding. They'll take alternate routes. That's what's going to happen.*

Response: Congestion overall will be less with the Refined LPA, so traffic infiltration into neighborhoods should not increase compared to the No-Build Alternative. Also, most neighborhood streets are discontinuous and would not be used as an alternate route by through traffic. In the event a neighborhood street is impacted, there are a variety of traffic calming measures that can be used to mitigate the impacts.

39. *Therefore, educating the general public, more public input, testing and re-testing before implementation is needed for a more efficient, more direct route, affordable, convenient transit system. If this is the best system, I suggest everyone connected with the BRT system use it daily to show it.*

Response: What you are asking for can only happen by implementing the BRT system.

40. *I still oppose the In-Town BRT portion of this mass transit system plan for the Primary Urban Center of Honolulu and the Island of Oahu presented in the Supplementary Draft Environmental Impact Statement*

Response: Comment noted. No response required. It is a statement of opposition to the In-Town BRT.

41. *This phase should wait till outside areas of Honolulu have their traffic congestion problems solved first before attempting to proceed with the In-Town route from Iwilei to Waikiki as proposed by City Director Soon & City Council Transportation Committee Chairperson Belnum.*

Response: Timing and implementation of the P.M. zipper lane and related Regional BRT improvements must be coordinated with the State DOT. SDOT wants to widen the H-1 Freeway in the areas where the P.M. zipper lane is proposed before installing the zipper lane. Since the Iwilei-Waikiki segment of the In-Town BRT can be a viable improvement to the transit system immediately, the City Council has elected to proceed with this segment as the first step in phasing of the BRT system.

42. *The water & sewer pipes in Honolulu have not been upgraded for years as countless number of water main pipes have broken within the last 3 years, due to wear and tear as heavier motor vehicles (trolleys, buses, limousines, trucks, SUV) use the roadways. These are the very streets that the City wish to start the Bus Rapid Transit System, with no mention of upgrading the roadways before commencing with this most ambitious project.*

Response: Efforts to coordinate utility upgrades have been initiated and will continue during final design.

43. *The first priority should encompass the areas outside of Urban Honolulu, as these are the areas most effected by traffic gridlock for Monday – Friday commuters. I feel that this is where the transit plans should be implemented first.*

Response: Timing and implementation of the P.M. zipper lane and related Regional BRT improvements must be coordinated with the State DOT. SDOT wants to widen the H-1 Freeway in the areas where the P.M. zipper lane is proposed before installing the zipper lane. Since the Iwilei-Waikiki segment of the In-Town BRT can be a viable improvement to the transit system immediately, the City Council has elected to proceed with this segment as the first step in phasing of the BRT system.

44. *The time intervals between trams are very unrealistic. My main mode of transportation is riding the City Buses to my destinations. I timed 60 – 65 able bodied persons getting off the bus No. 8 Shuttle Bus between Waikiki and Ala Moana (Shopping) Center. It took 3 – 4 minutes for passengers to get off and another 4 – 5 minutes for passengers to get on the bus to travel back to Waikiki with their bags and boxes of purchases, as well as families with baby strollers and toddlers. This does not take into account handicap passenger that need extra time. The time intervals as proposed by the City & County of Honolulu of 2, 4, 6, 8 minutes during rush hour are totally unrealistic. A wheelchair rider needs 5 – 10 minutes to settle into his or her seat from the curbside loading platform. If the rush hour intervals are followed, very few passengers will be able to board or get off the trams, as the next one is right behind it. The trams will cause gridlock and not be able to keep up with the time schedule*

Response: Boarding and alighting will be much easier with the In-Town BRT. Passengers will be able to get on-and-off from a platform that is at the same height as the bus floor (13 inches) so that there will be no steps to negotiate. Also passengers will be allowed to both enter and leave from any of 2 or 3 doors on the articulated buses. Passengers in wheelchair and scooters will be able to board and alight directly without the use of a lift. Passengers with baby strollers will also find it much easier to get on-and-off the bus. The net effect of these features is that dwell time at stops will be much less than today.

45. *The loading platforms for passengers in the middle of the streets will not be large enough to accommodate free movement for passengers with wheelchairs, baby stroller, walkers and folding shopping carts. In Japan I witnessed in certain areas that utilize boarding platforms in the middle of the streets crammed pack with students waiting for their buses – sometimes with barely room to spare. I shudder to think what may happen when the students are inattentive to the surrounding traffic while on the boarding platform. What happens when toddlers and children stray from their parents.*

    Response: The in-street platforms will be a minimum of 8-feet wide, and will be 10-feet wide where possible. In most cases they will be 160-feet long which is more that ample for two BRT buses to be letting passengers on-and off simulteneously. For the passenger loads forecast there will be ample room for people to wait, to get on-and-off the buses, and to circulate freely. The in-street platforms will have 3.5-feet high sturdy safety railings along the backside of the platform which is the side adjacent to traffic. Platforms such as those proposed have been in place on light rail and BRT systems all over the World.

46. *I also see problems of jaywalkers from young to old in certain parts of Honolulu – like Downtown, Chinatown, Kapiolani Boulevard and especially in Waikiki. People are rushing to catch a certain bus, in a hurry or inattentive to the surrounding traffic. These are problems facing Honolulu presently.*

    Response: Comment noted. In certain locations where jaywalking pose a safety hazard, measures will be taken to mitigate against it. For example, along S. King Street near Iolani Palace it is proposed to install a barrier, consisting of decorative bollards with chains connecting them, along the edge of the sidewalk next to the curb to discourage jaywalking.

47. *I'm sure that the best engineers, consultants and experienced personnel have spent countless hours of planning, preparing, cross examining to study the huge impact created by such a massive mass transit system, but public input is also crucial and vital, as these are the people who will use and be most affected by this project. Educating the public, testing and re-testing are important aspects not to be taken for granted.*

    Response: The community involvement process for the project has been on-going since 1998 and will continue throughout project development and implementation.

48. *I suggest that all those connected with the project and those in support utilize the In-Town BRT system. Riders want the most direct route and closest to their destinations, rather then spend time waiting at transit centers for their connecting tram. If the ridership is low, the fees will increase to a point many people will not be able to ride the BRT in the future. The heavy burden to maintain the BRT will fall on the tax payers of Hawaii.*

    Response: The concept behind the hub-and-spoke system is that passengers are provided greater choices of places they can travel to, and in some cases more directly and/or faster by passing through the transit centers and transfer points. Since the bus routes will be scheduled to arrive and depart at common intervals, the amount of waiting that will be required will be substantially less than in an un-coordinated system.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

4/20/02

Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu

Dear Ms. Soon,

There has been a lot of controversy opposing the Bus Rapid Transit program. However, there are more positive than negative.

Our community needs the benefits that this plan will bring us. The positive gains are shorter commutes, less auto traffic in the future, and in this time of economic uncertainty, more jobs and investment in the community.

I am in support of all efforts for this!

Thank you,

Kevin Nakamoto

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 · Fax (808) 523-4730 · Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00605

November 13, 2002

Mr. Kevin Nakamoto
3138 Waialae Avenue, #1104
Honolulu, Hawaii 96816

Dear Mr. Nakamoto:

Subject: Primary Corridor Transportation Project

This is in response to your April 20, 2002 letter regarding your comment on the Supplemental Draft Environmental Impact Statement (SDEIS).

> *There has been a lot of controversy opposing the Bus Rapid Transit program. However, there are more positive than negative. Our community needs the benefits that this plan will bring us. The positive gains are shorter commutes, less auto traffic in the future, and in this time of economic uncertainty, more jobs and investment in the community. I am in support of all efforts for this!*

Response: Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

April 19, 2002

Ms. Cheryl Soon, Director
Department of Transportation Services
City and County of Honolulu

Dear Ms. Soon,

I understand that there has been a lot of controversy opposing the Bus Rapid Transit program. I personally agree with what you are trying to accomplish and support you throughout.

With this plan it will solve majority of the major concerns the communities have right now as far as commute and traffic problems. It oot only will eliminate a 1.5 hour drive, but will bring additional jobs and money to Hawaii.

This is a perfect start to what will become a safer more abundant environment to the communities/businesses as well as tourism, with the growth of West Oahu. I know that a lot of planning, research and investment ha ve gone into this system and I commend you for this great effort.

I am in support of all your efforts,

Thank you,

Stacey K. Namihara

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00606

November 13, 2002

Ms. Stacey K. Namihara
1519 Nuuanu Avenue, #161
Honolulu, Hawaii 96817

Dear Ms. Namihara:

Subject: Primary Corridor Transportation Project

This is in response to your April 19, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I understand that there has been a lot of controversy opposing the Bus Rapid Transit program. I personally agree with what you are trying to accomplish and support you throughout.*

   Response: Thank you for supporting the BRT project.

2. *With this plan it will solve majority of the major concerns the communitias have right now as fer as commute and treffic problems. It not only will eliminate a 1.5 hour drive, but will bring additional jobs and money to Hawaii.*

   Response: The BRT project is one component of the transportation system that will give commuters an eltemative to driving their cars and will result in additional jobs for project construction and operation.

3. *This is a perfect start to what will become a safer more abundant environment to the communities/businesses es well as tourism, with the growth of West Oahu. I know that a lot of planning, research and investment have gone into this system and I command you for this great effort.*

   Response: We appreciate your insight into the effort involved in planning a project of this magnitude.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Public Comment Form

Primary Corridor Transportation Project
Island of Oahu, Hawaii

The information you provide on this form will help the C & C of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by November 6, 2000.

Name: Kim Nichols

Representing: Self

Address: 1346 Mokai st
Kailua, HI 96734
2686379

Please make any comments below:

(3-42) (3-55)

(1) PM 2.5 pollution maybe cumulatively the more dangerous pollutant. Please address this in the final EIS.

(2) Concerning the Kailua TSM + BRT (2-18) (2-21) programs (and perhaps the no-build) the nature of the neighborhood transit centers & route should be fleshed out more. Please include; where it might be; if there is a shelter how will it look; Kailua park development plan is HD specific; how will redevelopment occur (pg 3-14) how many feeder buses to be encouraged in Kailua!!

note: tourism is not to be encouraged in Kailua!!

5-42 not adequate

3-59 identify all sites

NEWS OF THE WEEK

AIR POLLUTION

Panel Backs EPA and 'Six Cities' Study

The Environmental Protection Agency (EPA) has won a major victory in the fierce battle over its tough new standard for particulate air pollution. Dealing a sharp blow to critics from industry, a nonpartisan research group has reevaluated key data that EPA relied upon to set that standard and has come out firmly behind the agency. Although all scientific debate isn't over, the reanalysis "puts to bed many of the concerns that were raised" 3 years ago, asserts John Vandenberg, an EPA environmental scientist.

At issue was EPA's 1997 decision to extend its regulation from particles 10 micrometers or less in size to those a mere 2.5 micrometers or less across ($PM_{2.5}$). EPA based its decision largely on two controversial studies that linked these tiny particles, released mainly by motor vehicles and power plants, to higher death rates.

In the Six Cities study, Harvard researchers examined the relation between levels of PM and sulfates (a component of fine particles) and death rates among more than 8000 people in six U.S. cities, following them for 14 to 16 years. The American Cancer Society (ACS) study followed over 500,000 people in 154 cities for 8 years. Both found a slight rise in death rates from heart and lung disease in cities with higher levels of $PM_{2.5}$, although the mechanism remained unclear. Based largely on the ACS death count, EPA calculated that the benefits of cutting $PM_{2.5}$ to 65 $\mu g/m^3$ over 24 hours would far outweigh the multibillion-dollar costs.

After EPA proposed the standard in 1996, the American Petroleum Institute (API) and other industry groups blasted the two studies. Some scientists also argued in congressional hearings that the apparent link might result from other air pollutants, a less healthy lifestyle in dirtier cities, or other confounding factors. Industry groups sued to block the new regulations. A federal court decided that the science was sound but threw out the rules based on legal arguments, which will be heard by the Supreme Court this fall. At the same time, skeptical industry groups and some lawmakers demanded that the Harvard researchers turn over their raw data. The researchers refused, saying that subjects' confidentiality would be breached.

To resolve the scientific and data-sharing issues, Harvard turned to the nonprofit Health Effects Institute (HEI) in Cambridge, Massachusetts. HEI assembled an expert panel to reanalyze both studies. In a report released last week, that panel concluded that the association between $PM_{2.5}$ and excess mortality is real. The team, led by statistician Daniel Krewski of the University of Ottawa, replicated the studies from original data sets and got essentially the same results: slightly higher death rates in the dirtier cities (see table). The team probed the data for more than 30 possible confounders, from altitude to health services, and tested the link "in nearly every possible manner" with various analytical techniques. The results still held.

Confirmation. Reanalysis yielded results almost identical to the original studies: a rise in death rate of 28% (in the Six Cities study) and 18% (in the ACS study) from cleanest to most polluted city.

Bill Frick, an attorney with the API, agrees that the reanalysis has "eliminated some of the uncertainty." Another major epidemiology study released by HEI that looked at daily PM levels and deaths in 90 cities has also cleared up earlier doubts (*Science*, 7 July, p. 22). But Frick argues that researchers still need to figure out which component of $PM_{2.5}$ causes harm and hence what problem needs to be fixed—power plants or diesel trucks, for instance. A slew of new federally funded research is addressing those questions and will feed into EPA's assessment of $PM_{2.5}$ science this fall. Until EPA decides whether to adjust the standard next year, it won't ask states to comply with the regulations.

Meanwhile, the legal scuffle over access to research data continues. In the wake of the controversy, Congress in 1998 passed a law, sponsored by Senator Richard Shelby (R–AL), mandating that federally funded researchers release their raw data if requested under the Freedom of Information Act. To the relief of scientific groups, the White House interpreted the law narrowly, limiting it to grants awarded after fall 1999 and only to data used to support regulations. The U.S. Chamber of Commerce threatened to sue to broaden that interpretation and began the process by filing requests last December for the Harvard data. So far, EPA has refused to turn over the data because the study predates the law. Keith Holman, an attorney with the Chamber of Commerce, says the group hasn't yet decided whether to litigate the case. –JOCELYN KAISER

ScienceScope

Money and Management The chair of the House Science Committee, James Sensenbrenner (R–WI), is worried that the National Science Foundation (NSF) might receive too much of the first despite a shortage of the second. However, his desire to correct the perceived imbalance has stalled a bill to reauthorize NSF's programs.

Last week the committee announced that it would mark up H.R. 4901, a 3-year blueprint for NSF to replace one that expires next month. It's the committee's fourth stab this year at a reauthorization bill (*Science*, 2 June, p. 1564). But moments before the panel convened, Sensenbrenner pulled the bill, citing his failure to reach an agreement on how to respond to "ethical lapses at NSF." Sensenbrenner is incensed at the agency's response to a government finding that Luther Williams, former head of education programs, improperly accepted outside honoraria, and he has written into the bill a tough new ethics program. But Democrats and NSF officials believe the language is unnecessary. Sensenbrenner also objects to proposed language that would double NSF's budget over 5 years, saying it would undermine his panel's credibility with appropriators.

Going to Sea Drawing on research showing that supertankers and other big ships are a major source of air pollution (*Science*, 31 October 1997, p. 823), two California-based environmental groups are pushing the Environmental Protection Agency (EPA) to clamp down on the problem. Lawyers with the Earthjustice Legal Defense Fund are negotiating with EPA to settle a lawsuit that calls for tougher controls on seagoing vessels, the Bluewater Network said last week.

In a 17 July report (www.bluewaternetwork.org), the network notes that big ships typically use high-sulfur fuels that produce prodigious amounts of sulfur and nitrogen oxides and particulate matter. The lawsuit, filed last February on the network's behalf, challenges EPA plans to regulate the emissions through an international agreement. The groups say EPA's plan is unenforceable and would allow emissions to increase by 13% by 2030. EPA officials, however, predict that tougher U.S. rules would cause captains to sail to other ports to refuel.

Contributors: David Malakoff, Michael Balter, Jeffrey Mervis

Kim Nichols 2686379

AR00015988

DEPARTMENT OF TRANSPORTATION SERVICES

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TPD02-00607

November 13, 2002

Ms. Kim Nichols
1246 Mowai Street
Kailua, Hawaii 96734

Dear Ms. Nichols:

Subject: Primary Corridor Transportation Project

This is in response to your October 12, 2000 Public Hearing comment form and oral testimony at the October 12, 2000 Public Hearing regarding comments on the Major Investment Study/Draft Environmental Imapct Statement (MIS/DEIS).

1. *$PM_{2.5}$ pollution maybe cumulatively the more dangerous pollutant. Please address this in the final EIS.*

   Response: All air pollutants are described in Section 3.5 of the FEIS.

2. *Concerning the Kailua TSM and BRT programs (2-18) (2-11) (and perhaps the no-build) the nature of the neighborhood transit center, please flesh it out more. Please include: where it might be; if there is a shelter how will it be; Kootaupoko development plan is no growth; how will redevelopment occur; how many feeder buses. Note: Tourism is not to be encouraged in Kailuall*

   Response: Community-based planning will be used for identifying the site and design of the Kailua/Kaneohe transit center(s). The transit center(s) in Kailua/Kaneohe will be planned and designed in accordance with the Koolaupoko Sustainable Communities plan.

3. *I'd like to make some comments about things that are not included in the DEIS. And one of them is in the air quality concerns in chapter – or Section Three. The ten micron end below particle – particulate matter is of interest now. It is a big deal. And therefore, I hope that will be included in the Final EIS.*

   Response: The project area and State of Hawaii is in compliance with the National Ambient Air Quality Standards for PM-10.

4. *Along those lines, it doesn't seem that these hybrid vehicles or the electric or hybrid vehicles are included in any of the No-Build program or the TSM program, and they could easily be phased in and, thereby, the decrease in air pollution also be included in those things. Please include them, if you can, in the Final EIS, and there in the financial benefits and environmental benefits.*

   Response: For purposes of the EIS, the transit technology provided in the No-Build Alternative and the TSM Alternative are minibuses and 40-foot standard and articulated buses. While minibuses could use alternative fuel sources, including electric batteries or propane, standard and articulated buses, particularly the ones used on long-haul routes, would need to be diesel or hybrid diesel/electric because of the mountainous terrain and limited range of battery-powered vehicles. However, the EIS does not preclude alternative technologies from being considered in the future.

5. *Finally, in Kailua – and I'm representing myself. In page 218 in – they talk about the neighborhood transit centers, and I just hope that that can be fleshed out a little bit in the final, especially where they are going to be.*

   Response: Planning and design of the Kailua/Kaneohe transit centers are proceeding as separate projects from the BRT and will include community input.

6. *If there is lane changes, how does that – it says – talks about redevelopment around these centers in Section 714.*

   Response: Along with serving existing transit needs, one of the other goals of the PCTP is to help shape growth in the corridor. The reason why there is development potential around transit centers is due to the high pedestrian traffic in and around these centers.

7. *And how is that going to affect the area, especially in the Koolaupoko Development Plan, if it is in agreement with the Koolaupoko Development Plan?*

   Response: The proposed project would not affect the objectives and implementation of the adopted Koolaupoko Sustainable Community Plan.

8. *And, you know, how many feeder buses will there be? Is there going to be more buses? And can these buses be electric? Are all the opportunity costs going to be lost? I don't think so, if we can include those electric buses in the other sections.*

   Response: More feeder buses, both in terms of routes and frequency of service, are proposed. Alternative propulsion systems are being studied.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00612

November 13, 2002

Mr. Bill Pelzer
1420 Victoria Street, #1304
Honolulu, Hawaii 96822

Dear Mr. Pelzer:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (MIS/DEIS).

1. *I'm a resident in the state since 1965, and I wish to write in summary opposition to the subject project, to which I will come immediately.*

   Response: Comment noted.

2. *I'd like to thank Midweek magazine for calling my attention to something that, in spite of my long residence and in spite of public hearings, has never come to my attention before. And I just never knew anything like this ever existed. And that doesn't stand too well to speak of for the media generally in Oahu.*

   Response: The community involvement for the project has been active since 1998 and will continue throughout design and implementation.

3. *And for lack of investigative reporting, one of the big information we do not have at our disposal to consider today is what politicians and their contributors stand to profit from this project, this billion dollar project, this thousand million dollar project.*

   Response: Comment noted.

4. *According to the plan, of course, by experience, we know that it will cost at least twice as much before they complete it. Then it's going to take about $4,000 for every man, woman and child of the – the population on this island. About $12,000 for every three-person family.*

   Response: Comment noted.

5. *And let no one tell us that somebody else is going to pay for this, because no matter, whether this money comes from the City or from the State or from the Federal, it's our tax money.*

   Response: Comment noted. Chapter 6 discusses the financial aspects of the project.

6. *Lastly, on the project itself, I see that the project was projected for 2025. Our roads are already moving parking lots. 2025, a quarter century from now. And every two weeks, a shipload of new cars come in, and the parking lots in the staging areas on Sand Island are filled with thousands of cars that are not on the road yet. In another quarter century, there will be no road space available for buses or for cars or anything.*

   Response: The planning horizon is consistent with Federal Transit Administration guidelines.

7. *So what are the solutions? Well, I feel there are two things we need. One, we need a limitation of the cars, number of cars, on the island, a system by which, for every new car that comes aboard, we have to have certainty that an existing vehicle becomes permanently out of circulation to make space for it. There is no other way.*

   Response: It is beyond the project scope to analyze a system that prohibits new cars on the road without an existing vehicle being permanantly removed from the roadways.

8. *And as for public transportation, there is no other way, but to get it off the road, to get a central corridor based on a monorail-type system. I know this is going to cost money. But since monorails do not have to stop for traffic and for red lights, every seat on the monorail easily covers about, let's say, a couple of dozen or so seats that exist on buses.*

   Response: A grade separated system was rejected at the outset by the public and City Council as being too costly and unsightly. Selection of a Locally Preferred Alternative has already been made.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Richard J. Port
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October 12, 2000

Sheryl Soon, Director
Dept. of Transportation
City & County of Honolulu

Dear Ms. Soon,

This is to express my opposition to the MIS-DEIS for the Primary Corridor Transportation Project.

I want first, however, to express my appreciation to you and to the City and County of Honolulu for the effort in attempting to help citizens coming to Honolulu from the west end of Oahu. I want also to express my appreciation for the effort to inform the public of the draft plan and to engage the community in a dialogue regarding transportation matters.

My opposition to the plan involves several issues:

1. the need for dedicated lanes within urban Honolulu is not demonstrated. Frankly, the current use of buses within urban Honolulu is satisfactory and flexible. Dedicated lanes will not eliminate the need for local buses in the remaining lanes since express stops will be relatively far apart.

2. the use of Kapiolani Boulevard for two dedicated lanes, with local buses also using the Kapiolani corridor will make it virtually impossible to get automobiles up and down Kapiolani Boulevard and will impact negatively on businesses on the Boulevard.

3. the current underuse of the articulated express buses along Kapiolani Boulevard does not bode well for the future occupancy of a rapid transit system. I have requested, but have not received from the Department of Transportation, ridership figures for individual express buses that the city and county is currently using.

4. The MIS-DEIS overstates the anticipated ridership and understates the anticipated cost of the system.

5. the proposed transit plan will negatively impact traffic going north/south or south/north. Since traffic signals will be synchronized to allow buses/trains to change the traffic signals, the traffic heading towards the mountains or ocean - already a significant problem during rush hours - will be adversely impacted.

In summary, the proposed system, using dedicated mass transit lanes, is not necessary, will create major problems for automobile traffic within urban Honolulu and will fail any reasonable test for cost benefit analysis.

Sincerely,

Richard Port

Richard Port

Richard J. Port
1600 Ala Moana Blvd. #3100
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October 17, 2000

Cheryl Soon, Director
Dept. of Transportation
City & County of Honolulu
711 Kapiolani Blvd. Suite 1200
Honolulu, HI 96813

Testimony in Opposition to the Major Investment Study-Draft Environmental Impact Statement

Dear Ms. Soon,

Before expressing my opposition to the MIS-DEIS for the Primary Corridor Transportation Project, I want first to express my appreciation to you and to the City and County of Honolulu for the effort in attempting to help citizens coming to Honolulu from the west end (Ewa, Mililani, etc.) of Oahu. I want also to express my appreciation for the effort to inform the public of the draft plan and to engage the community in a dialogue regarding transportation matters.

My opposition to the plan involves several issues:

1. the need for dedicated lanes within urban Honolulu has not been demonstrated. Frankly, the current use of buses within urban Honolulu, is both satisfactory and flexible. Since express stops will be relatively far apart (1/4 to 1/2 mile), dedicated lanes will not eliminate the need for local buses using the remaining undedicated lanes.

2. the use of Kapiolani Boulevard for two dedicated lanes, with local buses also using the Kapiolani corridor will make it virtually impossible to get automobiles up and down Kapiolani Boulevard and will impact negatively on businesses on the Boulevard. The MIS-DEIS needs to address the current automobile capacity of Kapiolani Boulevard and the projected reduction in automobile capacity after the dedicated lanes are built and local buses are added. Specifically, what happens to those who must use their automobiles (salespersons, delivery servicepersons) in the downtown Honolulu corridor during the day.

3. the current underuse of the articulated express buses along Kapiolani Boulevard does not bode well for the future occupancy of a rapid transit system. I have requested, but have not received from the Department of Transportation, ridership figures for individual express buses that the city and county is currently using.

4. the current bus system, using articulated buses, is capable of expanding ridership exponentially without dedicated/restricted lanes.

5. the MIS-DEIS overstates the anticipated ridership and understates the anticipated cost of the system. According to the city's own figures, total bus ridership is now the lowest

since 1979 despite an increase in the number of buses from 350 to 525 during this time and an increase in population. All of the ten U.S. cities that are the most intensive users of public transportation, including Honolulu, have experienced significant per capita ridership declines in the 1980-1998 period. Eight of the ten have rail lines, and still they decline.

6. the proposed transit plan will negatively impact traffic going north/south or south/north. Since traffic signals will be synchronized to allow buses/trains to change the traffic signals going east/west, the traffic heading towards the mountains or ocean - already a significant problem during rush hours - will be adversely impacted.

7. the MIS-DEIS does not take into account the changing work habits anticipated over the next 25 years. Specifically, more people are working out of their homes and are expected to spend fewer hours at their offices.

In summary, the proposed system, using dedicated mass transit lanes, is not necessary, will create major problems for automobile traffic within urban Honolulu and will fail any reasonable test for cost benefit analysis.

Sincerely,

Richard Port

Richard Port

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November 14, 2000

RECEIVED
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Duke Bainum, Chair
Committee on Transportation
Honolulu City Council
530 South King Street
Honolulu, HI 96813

Testimony in Opposition to Resolution 00-249 - Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project

Dear Council Member Bainum:

I have attached my testimony to Ms. Cheryl Soon dated October 17, 2000 which provides pertinent information and concerns regarding the draft Environmental Impact Statement for this mass transit project.

It is surprising to me that this committee and the Honolulu City Council would consider moving to support this project without analyzing my concerns and the concerns of hundreds of our citizens who have responded to the draft Environmental Impact Statement. Why the rush? Why aren't we waiting for a new draft of the EIS which would attempt to respond to the concerns raised by our community, including neighborhood boards, business groups and individual citizens?

The urban core portion of the plan, with the proposed dedicated lanes, is an attempt to enforce social engineering on our community. Specifically, it appears to force citizens out of their cars, even those who must use their cars for business or personal use. Even those senior citizens who currently use our bus system will be impacted because they will have to walk long distances between the new transit stops, or wait to transfer to local buses which will have to move up and down the same streets.

The dedicated lanes within the urban core are unnecessary. Our traffic problems do not involve the area from downtown Honolulu to Waikiki or the University. Our traffic problems involve getting people from Mililani and Ewa and the Leeward coast to urban Honolulu. That is the problem that the City Council needs to address.

I urge your committee to obtain a revised EIS, responsive to citizens concerns before moving this matter to the full council.

Sincerely,

Richard Port

Richard Port

AR00015992

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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD10/00-05263R

November 13, 2002

Mr. Richard J. Port
1600 Ala Moana Boulevard, #3100
Honolulu, Hawaii 96815

Dear Mr. Port:

Subject: Primary Corridor Transportation Project

This is a combined response to your comments on the Supplemental Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your MIS/DEIS comments and Part B responds to your SDEIS Comments.

Part A – MIS/DEIS Comments

1. *I would like to ask, however, that the City immediately release its current ridership for each of the bus routes and each of the buses and make that available. I realize that it's about paper but at least a copy somewhere where it can be looked at.*

   Response: Available ridership data for the current bus system was sent to you. Also, the FTA National Transit Database has ridership information on-line. The FTA's web address is www.fta.dot.gov.

2. *But the problem I have with BRT is the problem that we have in traffic is not so much from downtown to the University or downtown to Waikiki. I can drive faster from downtown to Waikiki or University faster than I go from the ocean to the H-1 on any of the four areas. I don't have time to explain but basically it takes longer to go North/South.*

   Response: There is no question that it is slower traveling mauka/makai than it is traveling Ewa/Koko Head whether you are in a bus or an auto. The PCTP focuses on east/west routing because this is the dominant direction of travel and where there are a sufficient number of buses to warrant conversion of lanes for priority use by buses. During planning for BRT buses and the hub-and-spoke conversion in the PUC, opportunities for bus priority treatments on mauka/makai streets will be identified.

3. *This plan, BRT now, calls for buses to be able to change the lights to green going East/West which is only going to back up the traffic North/South and make it worse than it is.*

   Response: Traffic impacts are addressed in Chapter 4 of the FEIS. Traffic signals will not be pre-empted by the BRT. At certain intersections, BRT vehicles approaching a green signal will activate a 4 to 10-second extension of the green indication for that cycle only. BRT vehicles stopped at a red signal will move concurrently with the through traffic in the same direction, unless

the BRT vehicle must turn or change lanes, in which case it will be given a 4 to 10-second green signal in advance of the general purpose traffic lanes. All traffic signal extensions and advance indications will be timed in the field during actual operation to minimize adverse effects on general traffic flow.

4. *Kapiolani Corridor, I don't understand how you're going to take away the lanes there and have reasonable traffic on Kapiolani Boulevard. And I don't understand why people would want to come from Manoa or Mekiki all the way down to Kapiolani. If you're going to do this and I'm against doing it. But if you're going to do BRT, I would think you'd be using King Street and Beretanie instead of Kapiolani. People would not have to go as far.*

   Response: There would continue to be very frequent bus service along King and Beretania Streets with the Refined LPA. The reason the In-Town BRT alignment is proposed on Kapiolani Boulevard is to serve major generators such as Ala Moana Center and the Convention Center, as well as to help shape growth at the large vacant parcels and underutilized properties in Kakaako and Ala Moana.

5. *But I don't believe those cost figures. Maybe it's a little bit like the big dig in Boston. For those of you who are familiar those were supposedly inspected cost by Congress. But frankly were never right in the beginning. And I don't believe these cost figures are right.*

   Response: Comment noted.

6. *Also, it doesn't take into account...If we're talking about 2025, really, more people are working out of their homes and will continue to increase the number of people... Just last night I sent an e-mail from here to Belfast from my house and came back in the morning to me. I had the response already.*

   Response: The concept of telecommuting has been discussed for decades and yet has had no noticeable impact on travel demand to date. Even if telecommuting increases significantly in the future it would not eliminate the need for the Refined LPA. Instead it would help flatten the peaks.

7. *This is to express my opposition to the MIS/DEIS for the Primary Corridor Transportation Project.*

   Response: Comment noted. It states the commenter's preference for an LPA.

8. *First, the need for dedicated lanes within urban Honolulu has not been demonstrated. Frankly, the current use of buses within urban Honolulu is satisfactory and very flexible. Dedicated lanes will not eliminate the need for local buses in the remaining lanes since we've been told express stops will be one-quarter to one-half mile apart. Meaning, there will have to be local buses on additional lanes.*

   Response: The Refined LPA is comprised of a mix of exclusive BRT, semi-exclusive BRT and mixed-use lanes. The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly affected, exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes that would be effected by congestion, exclusive transit lanes were retained such as on Dillingham Boulevard and on Hotel Street.

The In-Town BRT is only one element of the transit plan for the Primary Urban Center. The plan also includes conversion of the bus system to a hub-and –spoke network will consist of new local circulator routes, as well as continuation of many existing line haul and express routes. All existing bus routes will be evaluated for re-routing to intersect with the BRT at or near the proposed BRT stops. Some local service will also be retained on streets where the BRT will operate, so that riders will have an option of higher speed, limited stop service, or slower speed service with more frequent stops. The goal is to have an integrated network of transit services that provide convenient and cost-effective options for potential users.

9. *Two, the use of Kapiolani Boulevard for two dedicated lanes, with local buses also using the Kapiolani corridor, will make it virtually impossible to get automobiles up and down Kapiolani Boulevard and will impact negatively on businesses on the boulevard. The MIS/DEIS needs to address the current automobile capacity of Kapiolani Boulevard and the projected automobile capacity after the dedicated lanes are built and local buses are added.*

   Response: Year 2025 intersection operations based on the Oahu Regional Transportation Plan traffic forecasts are projected to operate within capacity with the exception of the Kapiolani/Atkinson intersection. This intersection is influenced by congestion at the Kapiolani/Kalakaua intersection, which is projected to be congested, with or without the BRT. These analyses include the effect of local buses which will be decreased in number when the BRT is fully implemented.

10. *Number three, the current underuse of the articulated express buses along Kapiolani Boulevard does not bode well for the future occupancy of a rapid transit system. I have requested, but have not received from the Department of Transportation, ridership figures for the individual express buses that the City and County is currently using. The current bus system using articulated buses can increase ridership exponentially without dedicated restricted lanes. I question the statement in the media presentation that we cannot increase the people-carrying capacity of our articulated buses.*

    Response: Ridership on the existing CityExpress! routes is only partially indicative of the ridership potential of the In-Town BRT. The In-Town BRT will operate at much closer intervals, at faster speeds and greater reliability due to priority lanes, raised platforms, loading from multiple doors with pre-payment of fares, and signal priority at selected locations.

11. *Number four, the MIS/DEIS overstates the anticipated ridership and understates the anticipated cost of the system.*

    Response: Comment noted.

12. *And finally, five, the proposed transit plan will negatively impact traffic going north/south or south/north. Since traffic signals will be synchronized to allow buses/trains to change the traffic signals going east and west, the traffic heading towards the mountains or the ocean, already a significant problem during rush hours, will be adversely impacted.*

    Response: Traffic signals will not be pre-empted by the BRT. At certain intersections, BRT vehicles approaching a green signal will activate a 4 to 10-second extension of the green indication for that cycle only. BRT vehicles stopped at a red signal will move concurrently with the through traffic in the same direction, unless the BRT vehicle must turn or change lanes, in which case it will be given a 4 to 10-second green signal in advance of the general purpose traffic lanes.

All traffic signal extensions and advance indications will be timed in the field during actual operation to minimize adverse effects on general traffic flow.

13. *And in summary, the proposed system, using dedicated mass transit lanes, is not necessary, will create major problems for automobile traffic within urban Honolulu and will fail any reasonable test for cost benefit analysis.*

    Response: The Refined LPA proposed reallocation of general-purpose lanes for transit is the only reasonable way to achieve greater person carrying capacity in the future. The Refined LPA Alternative will provide an attractive, dependable, affordable alternative to the private automobile.

    Using cost-effectiveness measures prescribed by the FTA, the Refined LPA scores much better than the No-Build and TSM Alternatives.

14. *This is to express my opposition to the MIS/DEIS for the Primary Corridor Transportation Project.*

    Response: Comment noted. It states the commenter's preference for an LPA.

15. *The need for dedicated lanes within urban Honolulu is not demonstrated. Frankly, the current use of buses within urban Honolulu is satisfactory and flexible. Dedicated lanes will not eliminate the need for local buses in the remaining lanes since express stops will be relatively far apart.*

    Response: See response to comment #8.

16. *The use of Kapiolani Boulevard for two dedicated lanes, with local buses also using the Kapiolani corridor will make it virtually impossible to get automobiles up and down Kapiolani Boulevard and will impact negatively on businesses on the Boulevard.*

    Response: See response to comment #9.

17. *The current underuse of the articulated express buses along Kapiolani Boulevard does not bode well for the future occupancy of a rapid transit system. I have requested, but have not received from the Department of Transportation, ridership figures for individual express buses that the City & County is currently using.*

    Response: See response to comment #10.

18. *The MIS/DEIS overstates the anticipated ridership and understates the anticipated cost of the system.*

    Response: Comment noted.

19. *The proposed transit plan will negatively impact traffic going north/south or south/north. Since traffic signals will be synchronized to allow buses/trains to change the traffic signals, the traffic heading towards the mountains or ocean – already a significant problem during rush hours – will be adversely impacted.*

    Response: See response to comment #12.

20. *In summary, the proposed system, using dedicated mass transit lanes, is not necessary, will create major problems for automobile traffic within urban Honolulu, and will fail any reasonable test for cost benefit analysis.*

    Response: See response to comment #13.

21. *Before expressing my opposition to the MIS/DEIS for the Primary Corridor Transportation Project, I want first to express my appreciation to you and to the City and County of Honolulu for the effort in attempting to help citizens coming to Honolulu from the west end (Ewa, Mililani, etc.) of Oahu. My opposition to the plan involves several issues.*

    Response: Comment noted. It states the commenter's opinions.

22. *The need for dedicated lanes within urban Honolulu has not been demonstrated. Frankly, the current use of buses within urban Honolulu, is both satisfactory and flexible. Since express stops will be relatively far apart (1/4 to 1/2 mile), dedicated lanes will not eliminate the need for local buses using the remaining undedicated lanes.*

    Response: See response to comment #8.

23. *The use of Kapiolani Boulevard for two dedicated lanes, with local buses also using the Kapiolani corridor will make it virtually impossible to get automobiles up and down Kapiolani Boulevard and will impact negatively on businesses on the Boulevard. The MIS/DEIS needs to address the current automobile capacity of Kapiolani Boulevard and the projected reduction in automobile capacity after the dedicated lanes are built and local buses are added. Specifically, what happens to those who must use their automobiles (salespersons, delivery servicepersons) in the downtown Honolulu corridor during the day.*

    Response: See response to comment #9.

24. *The current underuse of the articulated express buses along Kapiolani Boulevard does not bode well for the future occupancy of a rapid transit system. I have requested, but have not received from the Department of Transportation, ridership figures for individual express buses that the City and County is currently using.*

    Response: See response to comment #10.

25. *The current bus system, using articulated buses, is capable of expanding ridership exponentially without dedicated/restricted lanes.*

    Response: Although the existing bus system has the capacity to expand, the buses would have to continue to operate in mixed traffic. The Refined LPA provides a mix of exclusive BRT, semi-exclusive BRT and mixed-use lanes. The BRT system will attract new riders by providing a faster more reliable service by offering limited stop operations in bus priority lanes.

26. *The MIS/DEIS overstates the anticipated ridership and understates the anticipated cost of the system. According to the City's own figures, total bus ridership is now the lowest since 1979 despite an increase in the number of buses from 350 to 525 during this time and an increase in*

population. All of the ten U.S. cities that are the most intensive users of public transportation, including Honolulu, have experienced significant per capita ridership declines in the 1980-1998 period. Eight of the ten have rail lines, and still they decline.

Response: The travel forecasts for the Primary Corridor Transportation Project were developed using travel forecasting procedures developed for the Oahu Metropolitan Forecasting Model Development Project. These procedures simulate the choices made by residents, business, and visitors regarding the nature, number, mode, time-of-day, and geographic orientation of trips that they make on a typical weekday. The procedures have been developed with data obtained in extensive surveys of Oahu households, transit riders, and air passengers. Future year forecasts reflect the population and employment forecasts that have been prepared by DBEDT and the zonal allocations that have been prepared by the City Department of Planning and Permitting.

The travel forecasting methodology and resulting travel forecasts used for the Primary Corridor Transportation Project are described in the FEIS Chapter 4. The transportation plan for Oahu is described in the Oahu Metropolitan Planning Organization's report, Transportation for Oahu Plan TOP 2025.

Overall transit ridership is growing at a faster rate than other modes of transportation. According to the American Public Transportation Administration, public transit ridership has grown for six consecutive years, reaching new record levels. This growth in transit ridership outpaced growth of the population and highway use.

Honolulu's specific experience shows that ridership responds to the implementation of faster, more convenient service. CityExpress! and CountryExpress! routes were created to provide limited-stop express service along Honolulu's busiest corridors. Ridership along these three routes has grown dramatically, and comments from the public demonstrate the appeal of faster bus service.

Other transit systems in major U.S. cities have proven that rapid bus systems attract greater ridership. For example, implementation of the Metro Rapid BRT system in Los Angeles resulted in increases in ridership of 33% and 26% along the two BRT corridors.

Furthermore, any decision to move forward with transit improvements cannot be based solely on historical ridership statistics. Future plans for transit are made in anticipation of critical issues in the coming years and decades, including: increasing population growth, increasing need for alternative modes of transportation among various segments of the population, growing concern about air pollution caused by automobiles, increasing costs to consumers of parking and gasoline, and limited land and budget availability that prevents further expansion of roads. To address these impending issues, the City has chosen to move forward to make transit a more appealing and effective choice for the future.

27. *The proposed transit plan will negatively impact traffic going north/south or south/north. Since traffic signals will be synchronized to allow buses/trains to change the traffic signals, the traffic heading towards the mountains or ocean – already a significant problem during rush hours – will be adversely impacted.*

    Response: See response to comment #12.

28. *The MIS/DEIS does not take into account the changing work habits anticipated over the next 25 years. Specifically, more people are working out of their homes and are expected to spend fewer hours at their offices.*

    Response: The concept of telecommuting has been discussed for decades and yet has had no noticeable impact on travel demand to date. Even if telecommuting increases significantly in the future it would not eliminate the need for the BRT. Instead it would help flatten the peaks.

29. *In summary, the proposed system, using dedicated mass transit lanes, is not necessary, will create major problems for automobile traffic within urban Honolulu, and will fail any reasonable test for cost benefit analysis.*

    Response: See response to comment #13.

30. *It is surprising to me that this committee and the Honolulu City Council would consider moving to support this project without analyzing my concerns and the concerns of hundreds of our citizens who have responded to the draft Environmental Impact Statement. Why the rush? Why aren't we waiting for a new draft of the EIS which would attempt to respond to the concerns raised by our community, including neighborhood boards, business groups and individual citizens?*

    Response: The City Council has followed procedures in accordance with NEPA and FTA guidelines. Selection of the Locally Preferred Alternative occurred based on the MIS/DEIS and input received from public oral and written testimony. Responses to comments received on the MIS/DEIS are contained in the FEIS.

31. *The urban core portion of the plan, with the proposed dedicated lanes, is an attempt to enforce social engineering on our community. Specifically, it appears to force citizens out of their cars, even those who must use their cars for business or personal use. Even those senior citizens who currently use our bus system will be impacted because they will have to walk long distances between the new transit stops, or wait to transfer to local buses which will have to move up and down the same streets.*

    Response: Congestion is forecast without the BRT. The BRT rather than forcing anyone to use it tries to attract users by offering an alternative that can move independant of the congested lanes. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes. Senior citizens will not be giving up anything, they will be gaining the choice of using the BRT or continuing to use local buses.

32. *The dedicated lanes within the urban core are unnecessary. Our traffic problems do not involve the area from downtown Honolulu to Waikiki or the University. Our traffic problems involve getting people from Mililani and Ewa and the Leeward coast to urban Honolulu. That is the problem that the City Council needs to address.*

    Response: Traffic congestion exists in town as well as along the H-1 and H-2 corridors, and is projected to only get worse in the future. That is why there is an In-Town BRT as well as a Regional BRT component in the Refined LPA.

33. *I urge your committee to obtain a revised EIS, responsive to citizens concerns before moving this matter to the full council.*

    Response: See response to comment #30.

34. *Finally, you opposed the In-Town BRT as the Locally Preferred Alternative (LPA) at the November 14, 2000 Special Transportation Committee Meeting.*

    Response: Comment noted. It states your preference for an LPA.

Part B – SDEIS Comments

35. *I oppose the City's current plan for BRT.*

    Response: Comment noted. Thank you for attending the public hearing.

36. *To be fair, the City has a very good bus system. It has been getting better with the introduction of articulated buses, and it can be improved. I would be happy to provide the City with some ideas, although I doubt that they would be accepted.*

    Response: Comment noted.

37. *The bad news is the BRT plan is too expensive. Property taxes will be increased significantly. To believe otherwise, I have a mountain at the end of Waikiki that I'm putting up for sale tomorrow.*

    Response: Comment noted.

38. *Furthermore, the plan is based on false philosophical principles of social engineering, that people will use buses or trams and get out of their cars. I was fascinated by the comment that was made by the previous speaker on the early – and I attended some of those meetings – "It's going to make it easier to drive. Win-win." In fact, I was told by the head of the Transportation Department that, in fact, this was not social engineering. But in the last six months or a year, it's come out. So what we were told originally is not true. It is social engineering. It is to force people out of their cars.*

    Response: Comment noted. The MIS/DEIS, SDEIS, and FEIS Chapter 1 state the purposes of the Primary Corridor Transportation Project as:

    1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile.
    2. Support desired development patterns.
    3. Improve the transportation linkage between Kapolei, which is envisioned to be the "Secondary Urban Center" of Oahu, and Honolulu's Urban Core.
    4. Improve the transportation linkages between communities in the Primary Urban Center (PUC) to increase the attractiveness of in-town living.

39. *About 15 years ago, the public, you and I, as property taxpayers, paid for the improvements in Kakaako. We were told, at that time, that the purpose for the improvements in Kakaako was that low income and middle income housing would be built there so that the workers in Waikiki would be close to their jobs, they wouldn't have to use – come long distances with the bus system. It was a lie. Now that was a State lie. But what we have here is a system that is being prepared for us that is going to be very, very expensive.*

Response: Comment noted. No response required.

40. *And, in summary, let me say this. It's a very unusual thing to see a former chairman of the Democratic Party, a progressive one, some use the L word, agreeing with the Libertarian Party chair, who couldn't be farther apart. But we agree on this. This is the wrong plan.*

Response: Comment noted. No response required.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Miyamoto, Faith

From: Hamayasu, Toru
Sent: Tuesday, October 31, 2000 10:41 AM
To: Miyamoto, Faith
Subject: DEIS Comment

I suppose this is a formal comment to the DEIS.

Glen Robinson (2021 Kakela St. Hon. 96822) called at 10:30 AM, 10/31/00.

He thinks an elevated rail or highway would avoid condemnation of the property along Dillingham Blvd. He was concerned about the TV news report last night where a lady being interviewed stated the BRT proposal may condemn her business on Dillingham.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00613

November 13, 2002

Mr. Glen Robinson
2021 Kakela Street
Honolulu, Hawaii 96822

Dear Mr. Robinson:

Subject: Primary Corridor Transportation Project

This responds to your October 31, 2000 phone conversation with the City and County of Honolulu Department of Transportation Services regarding your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

An elevated rail or highway would avoid condemnation of the property along Dillingham Blvd. Concerned about the TV news report last night where a lady being interviewed steted the BRT proposal may condemn her business on Dillingham.

Response: No businesses are proposed to be condemned along Dillingham Boulevard with any of the Alternatives.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

October 19, 2000

RECEIVED
Oct 20 3 24 PM '00
CITY CLERK
HONOLULU, HAWAII

O'ahu Transit Services Inc

Dear Members of Transportation Committee,

I am writing to give feedback regarding the new hub-and-spoke bus system, which started on Sept. 1. In its present form, the system has many negative aspects, in my opinion. First of all, why do the buses travel on our side street (Lumiauau) when they could easily stay on Kamehameha Hwy and turn right into Waikele via Lumiaina, a much wider four lane thoroughfare? Why must the buses come every 30 minutes starting from 5 a.m. and ending at 11:15 p.m. every day, including weekends? This is not downtown Honolulu!

Monday through Friday, most of our residents go to sleep early in order to get up early, yet loud, almost empty buses travel Lumiauau until 11:15 p.m. Furthermore, most of our residents enjoy "sleeping in" on Saturday morning, yet loud, nearly empty buses travel Lumiauau as early as 5 a.m. This is unacceptable!

Please don't force me to go door to door in Waikele with a petition demanding the City and County of Honolulu modify the hub-and-spoke system such that Lumiauau be returned to a bus free zone. Your prompt response to this matter is greatly appreciated.

Most Sincerely,

Patrick Rorie (586-3657)

Patrick Rorie, President – Ho'omaka Village Board of Directors

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00614

November 13, 2002

Mr. Patrick Rorie
94-870 Lumiauau Street, Apt. X202
Waipahu, Hawaii 96797

Dear Mr. Rorie:

Subject: Primary Corridor Transportation Project

This is in response to your October 19, 2000 letter and your oral testimony at the October 19, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I am writing to give feedback regarding the new hub-and-spoke bus system, which started on Sept. 1. In its present form, the system has many negative aspects, in my opinion.*

   Response: Comment noted.

2. *First of all, why do the buses travel on our side of the street (Lumiauau) when they could easily stay on Kamehameha Hwy and turn right into Waikele via Lumiaina, a much wider four-lane thoroughfare?*

   Response: This is not an issue for the PCTP. Your comment has been referred to the planners of the current hub-and-spoke conversion at DTS.

3. *Why must the buses come every 30 minutes starting from 5 a.m. and ending at 11:15 p.m. every day, including weekends? This is not downtown Honolulu!*

   Response: See response to comment #2.

4. *Monday through Friday, most of our residents go to sleep early in order to get up early, yet loud, almost empty buses travel Lumiauau until 11:15 p.m. Furthermore, most of our residents enjoy "sleeping in" on Saturday morning, yet loud, nearly empty buses travel Lumiauau as early as 5 a.m. This is unacceptable!*

   Response: See response to comment #2.

5. *Please don't force me to go door to door in Waikele with a petition demanding the City and County of Honolulu modify the hub-and-spoke system such that Lumiauau be returned to a bus free zone. Your prompt response to this matter is greatly appreciated.*

   Response: See response to comment #2.

6. *I'm not anti-bus. We have one of the best bus systems in the country. It's vital that we continue to use the bus system to help transport people. However, based on its present form, the hub and spoke bus system, I'm opposed to it unless changes are made.*

   Response: See response to comment #2.

7. *The reason being, starting in September 1, I couldn't help but notice...I live in a condo near Lumiauau Street, which is a side street in Waikele, and I couldn't help but notice that there's this bus, No. 433. It just seem to come every 30 minutes from like 5 a.m. to 11:15 p.m. And I think to myself, you know, I live in Waikele and there are pros and cons to that. But one thing, you know, downtown Honolulu one thing you want to get away from in this type of situation with the bus. And, so, I just couldn't help but notice that. The reason I bring up the times are because the key like for the 11:15 p.m., you know, most of our residents have to go to bed fairly early to fight the traffic the next morning. And so, for this bus to be coming at 11:15 p.m., it seems awfully late in the evening when we're trying to sleep. And, again, my windows are open. Others have air conditioners. Five a.m. on Saturday morning? I mean, again, we're trying to sleep in at least Saturday or Sunday. Would be nice to sleep in a couple days a week. And at 5:00 a.m. this bus comes in and it's pretty... The newer ones are quieter but it's still a nuisance. Also, the buses are pretty much empty.*

   Response: See response to comment #2.

8. *Also on Saturday and Sunday, we have soccer games going on in the park near my condo and the vehicles line all parked all along Lumiauau and so I'm not sure where the buses are stopping to let people off. Maybe in the middle of the street. That doesn't seem very safe.*

   Response: See response to comment #2.

9. *And then, finally, it just seems like this bus could go into ... instead of turning onto our side street, it could get on to Lumiaina which is a four-lane thoroughfare. That much makes a lot more sense.*

   Response: See response to comment #2.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00615

November 13, 2002

Ms. Ann Ruby
55 S. Kukui Street
Honolulu, Hawaii 96813-2328

Dear Ms. Ruby:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the April 20, 2002 public hearing regarding comments on the SDEIS.

1. *And I took your bus to get here this morning.*

   Response: We appreciate you taking the time to attend the public hearing and for using TheBus.

2. *I have spent considereble time in Portland, Oregon; Seattle, Washington; and Vancouver, British Columbia. Each hes its own different rapid transit system.*

   Response: Comment noted.

3. *Portland has e bus rapid transit. It is not rapid, it hes to stop at all the cross streets, and it takes up too much road space. Only those with lots of time ride it. It's faster to drive.*

   Response: Comment noted.

4. *According to the plan, of course, by experience, we know that it will cost at least twice as much before they complete it. Then it's going to teke ebout $4,000 for every man, woman and child of the – the population on this island. About $12,000 for every three-person family.*

   Response: Comment noted.

5. *Seattle hes their one little monorail put up for the World's Feir in 1962 from downtown to Seattle Center. But many people ride it, not only tourists. It is fast, cleen, quiet end efficient. Seattle eree is thinking more monorails.*

   Response: Comment noted.

6. *Seattle did build a very expensive bus tunnel, a rail rapid bus tunnel, but they ere apparently scrapping this idea now.*

   Response: The Seattle bus tunnel is in operation.

7. *Vancouver, British Columbia, has what they call the SkyTrain, end it was built, I think, originally 1988 for the World's Fair, and it has the SkyTrain bus hub system. It's extremely efficient. It's non-invasive to roads, and they are expanding them, and it's a well-run system.*

   Response: Comment noted.

8. *To me, clearly, BRT is not the wey to go. I don't want to see buses running every two minutes up and down Kalakaua or eny street.*

   Response: Comment noted.

9. *I have been a bus rider since 1989, but I must sey that this BRT is very unfair to cars.*

   Response: Comment noted.

10. *I think the words "Bus Rapid Transit" is an oxymoron, because buses, by nature, are not rapid.*

    Response: Comment noted.

11. *I would rather see e nice, thin, sleek, trim, quiet monorail system built ebove the existing roadways, with no interference to cars. And each station could heve a bus. And that system hes worked very well in Vancouver, British Columbia, and it's a good system.*

    Response: Comment noted. It is a statement regarding preference for monorail.

We appreciate your interest in the project.

Sincerely,

CHERYL O. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00616

November 13, 2002

Mr. Harrison Rue
2902B Kalawao Place
Honolulu, Hawaii 96822

Dear Mr. Rue:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 26, 2000 Special Transportation Committee Meeting regarding comments you made on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I'm speaking in support of the city's unprecedented effort to find a workable cost effective environmentally friendly solution to our island's transportation needs. And I believe the current Bus Rapid Transit proposal meets those needs.*

   Response: Comment noted. Thank you for supporting the project.

2. *At the end of that public process, I'm remembering that there was a half a dozen key elements that came out. We've heard some of them talked about tonight. One of the things that didn't come up tonight is over 25% of our island residents are elders or kids or disabled. Can't drive. So, we're looking at meeting their needs.*

   Response: The Refined LPA provides an attractive transportation option to the non-driving community.

3. *We need to look at moving people, not cars. There was strong consensus at all the meetings that we can't continue to just widen roads downtown. So, this does something else. And, the consensus at the end of round four, by those several thousands people, was that preserving the priority lanes for transit with the effective signal preference, pedestrian circulator buses connections would give us the most bang for the buck.*

   Response: Comment noted. Again, thank you for supporting the project.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00617

November 13, 2002

Mr. William Samaritano
1778 Ala Moana Boulevard
Honolulu, Hawaii 96815-1605

Dear Mr. Samaritano:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the April 20, 2002 public hearing regarding comments on the SDEIS.

1. *I'm a resident of Waikiki for over 21 years, and I am against this Bus Rapid Transit, if you can call it rapid transit.*

   Response: Thank you for attending the public hearing and expressing your views.

2. *Back in 1990, Kevin Costner starred in the film called "Field of Dreams," in which he played an Iowa farmer who kept hearing voices that told him, "If you build, he will come." The film was called "Field of Dreams," and the voices Kevin kept hearing told him to build a baseball field in the middle of his cornfield in Iowa. Now, being Hollywood, everything worked out in the end, and everyone lived happily ever after. Now, I'm sure you're wondering what this "Field of Dreams" has to do with BRT. Well, I think the same forces are at work here with our City officials. I think they are hearing voices similar to those, saying, "If you build it, they will use it." This type of thinking may work great for Hollywood, where things exist in the fantasy world. However, this type of thinking is a disaster for the real world, no matter how well-intentioned.*

   Response: Comment noted.

3. *A recent example of this well-intentioned thing is the defunct van cam project, a project which started out with the best of intentions, trying to keep speeders and motorists who speed off our streets. What the people of Honolulu have ended up with is a project that is going to cost taxpayers millions of dollars, money we do not have.*

   Response: Comment noted.

4. *So you have to ask yourself, Why build BRT? A project many people will admit and have said that will create major traffic jams, turn our main thoroughfares into parking lots.*

   Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

5. *Our City officials have this notion that they can make us use this thing and get out of our cars by making it inconvenient for us to use our cars. The "If they build it, they will use it" syndrome.*

   Response: Comment noted. The MIS/DEIS, SDEIS, and FEIS Chapter 1 state the purposes of the Primary Corridor Transportation Project are not to force people out of their cars by making it inconvenient for them, but to:
   1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile.
   2. Support desired development patterns.
   3. Improve the transportation linkage between Kapolei, which is envisioned to be the "Secondary Urban Center" of Oahu, and Honolulu's Urban Core.
   4. Improve the transportation linkages between communities in the Primary Urban Center (PUC) to increase the attractiveness of in-town living.

6. *Traffic is already bad, and yet people still not – still do not use the existing bus system as much as they should, a bus system that has received many national rewards for being one of the best in the country.*

   Response: It will not require a major shift of people from autos to transit for the Refined LPA to have a positive impact on reducing congestion while giving transit riders significant benefits. By 2025 the Refined LPA is projected to attract an additional 2 percent of the auto drivers on to transit than would have occurred with the No-Build Alternative.

7. *Solutions? Let's expand on this nationally honored system. Why try and reinvent the wheel? Let's do like what the gentleman suggested earlier. Turnouts for the existing bus system, better left- and right-turn lanes. Why rebuild the wheel? Why try and force us out of cars? Something we know is not going to happen.*

   Response: Bus turnouts will be added along sections of Dillingham Boulevard and Kuhio Avenue. Bus turnouts are not a complete solution in and of themselves.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00618

November 13, 2002

Mr. Donald Samuel
98-099 Uao Place
Aiea, Hawaii 96701

Dear Mr. Samuel:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 19, 2000 Special Transportation Committee Meeting regarding your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

> *"I'm just here as a resident of Lele Pono. And due to the congestion, the atmosphere and the congestion that is there now it's just too much. And based on that, I think we need another location."*

Response: The former Kamehameha Drive-In site is no longer being considered for a transit center.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

4/20/02

Ms. Cheryl Soon, Director
Department of Transportation
City & County of Honolulu

Dear Ms. Soon,

Hawaii needs to develop a modern, efficient public transportation system, and this project is the perfect solution.

I am in support of the work and input that the community has contributed towards developing the Bus Rapid Transit system. I look forward to the future traffic relief this will bring!

Thank you,

Noel Sario

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00619

November 13, 2002

Mr. Noel Sario
91-151 Makalea Street
Ewa Beach, Hawaii 96706

Dear Mr. Sario:

Subject: Primary Corridor Transportation Project

This is in response to your April 20, 2002 letter regarding your comment on the Supplemental Draft Environmental Impact Statement (SDEIS).

> *Hawaii needs to develop a modern, efficient public transportation system, and this project is the perfect solution. I am in support of the work and input that the community has contributed towards developing the Bus Rapid Transit system. I look forward to the future traffic relief this will bring!*
>
> Response: Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

Ms. Cheryl Soon, Director
Department of Transportation Services
City & County of Honolulu

April 18, 2002

Dear Ms. Soon:

I am in favor of the proposed Bus Rapid Transit (BRT) program. It is clear to me that without building new roads and more parking lots, traffic will continue to get worst with more driving delays and more congestion, pollution, road rage, accidents and deaths. I don't have to be a traffic expert to figure that out. I think that those against any kind of mass transit system are short sighted, ignorant or have some sort of selfish motivations against it. More roads and parking lots are not what the people want. Therefore, the only answer to traffic problems seems to be some sort of mass transit, which the BRT is one off.
The BRT is a great start for introducing a mass transit program to Hawaii. It will help the people of Hawaii to take a first big step toward mass transit with minimal effort. We already have and use similar type buses and we have the roadways on which to run on. The rest are enhancement facilities which will make it attractive to riders and a plan to organize the operation. Simple.
The math is also very simple. The more riders on the BRT, the less cars on the road. Simple.

Warren T. Sato

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00620

November 13, 2002

Mr. Warren T. Sato
1306 Kina Street
Kailua, Hawaii 96734

Dear Mr. Sato:

Subject: Primary Corridor Transportation Project

This is in response to your April 18, 2002 letter regarding comments on the SDEIS.

1. *I am in favor of the proposed Bus Rapid Transit (BRT) program. It is clear to me that without building new roads and more parking lots, traffic will continue to get worse with more driving delays and more congestion, pollution, road rage, accidents and deaths. I don't have to be a traffic expert to figure that out. I think that those against any kind of mass transit system are short sighted, ignorant or have some sort of selfish motivations against it. More roads and parking lots are not what the people want. Therefore, the only answer to traffic problems seems to be some sort of mass transit, which the BRT is one of.*

   Response: Thank you for supporting the BRT project.

2. *The BRT is a great start for introducing a mass transit program to Hawaii. It will help the people of Hawaii to take a first big step toward mass transit with minimal effort. We already have and use similar type buses and we have the roadways on which to run on. The rest are enhancement facilities which will make it attractive to riders and a plan to organize the operation. Simple.*

   Response: We concur.

3. *The math is also very simple. The more riders on the BRT, the less cars on the road. Simple.*

   Response: Again, thank you for supporting the BRT project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00621

November 13, 2002

Ms. Janis Sauter
P.O. Box 216
Aiea, Hawaii 96701

Dear Ms. Sauter:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 19, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *But, I guess, as a registered nurse I have great concerns about the fumes and the pollution that will be caused by the center at Kam. With prevailing winds, pollution comes straight towards our condominium, towards our project. Pollution is one of my great concerns about this center being there around a residential area.*

   Response: The former Kamehameha Drive-In site is no longer being considered for a transit center.

2. *Along with noise which is another great health factor. Although people don't usually see noise as a health factor.*

   Response: The FTA noise criteria are based on levels that are well below the thresholds of health risks to humans. The Refined LPA alternative will not result in any severe noise impacts along the alignment. Therefore there is no health risk associated with the operational noise levels of the Refined LPA.

3. *And then, of course, traffic problems which have already been enumerated about as far as having the buses be able to control the light at Keonohi and Moanalua intersection. Traffic there already is unbelievable and if you don't believe it, come at Christmas time. It is totally unmovable at Christmas.*

   Response: The transit center site at Kamehameha Drive-In and the on/off-ramp from Kaonohi Street to H-1 have been eliminated from consideration.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: ARUN SAVARA
Representing: SELF
Address: 610 W HIND DR
HONOLULU HI 96821

Please make any comments below:

BETTER PUBLIC TRANSPORTATION IS NEEDED, BUT BUILDING BRT WILL NOT ATTRACT RIDERS UNLESS PARK AND RIDE PARKING PROVIDED.

FOR CARS THAT WANT TO USE DENSE DOWNTOWN HONOLULU, OTHER THAN SERVICE/BUSINESS VEHICLES, STATE ADOPT USAGE TAX LIKE SINGAPORE

DONT RESERVE LANES FOR EMPTY BUSES

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00622

November 13, 2002

Mr. Arun Savara
610 West Hind Drive
Honolulu, Hawaii 96821

Dear Mr. Savara:

Subject: Primary Corridor Transportation Project

This is in response to your April 20, 2002 comment form regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *Better public transportation is needed, but building BRT will not attract riders unless park-and-ride parking gerages are provided.*

   Response: Park-and-ride garages and lots will be provided with a total of over 3,600 spaces.

2. *For cars that want to use dense downtown and Waikiki areas (other than service/business vehicles) have additional usage taxed like Singapore.*

   Response: Congestion pricing is not part of any current plans for Oahu.

3. *Don't reserve lanes for empty buses.*

   Response: The buses are not projected to be empty.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Thomas Schnell
545 Queen St., #639
Honolulu, Hawaii 96813
(808) 526-9434

October 26, 2000

The Honorable Duke Bainum, Chair
and Committee Members
Transportation Committee
650 South King Street
Honolulu, Hawaii 96813

RECEIVED
Oct 26 7 32 AM '00
CITY CLERK
HONOLULU, HAWAII

Dear Chair Bainum and Committee Members:

RE: Support of Bus Rapid Transit

I am writing in support of the Bus Rapid Transit (BRT) alternative as outlined in the Major Investment Study/Draft Environmental Impact Statement that has been prepared for the Primary Urban Corridor Transporation Project.

The BRT alternative will make Honolulu a better, more livable city with less traffic. The costs associated with the automobile are immense. We can't continue to build more highways or double deck our freeways. Roadways and parking lots are expensive to build. Automobiles pollute the air and water. The best solution is to improve public transportation with the BRT alternative.

Bus rapid transit is greatly needed improve Honolulu's traffic congestion and to provide an alternative to cars dominating our city. I support the BRT alternative because it will provide mobility to people who choose not to own, cannot afford, or are unable to drive a car.

Mobility should not be limited only to peoplewho can afford and operate cars. Honolulu needs to increase its transportation options, not only to decrease congestion, but to provide equal opportunity of mobility to all citizens–including children, seniors, the poor, or the disabled, or people who simply choose not to drive a car.

Thank you for considering my opinions.

Thomas Schnell

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00623

November 13, 2002

Mr. Thomas Schnell
545 Queen Street, #639
Honolulu, Hawaii 96813

Dear Mr. Schnell:

Subject: Primary Corridor Transportation Project

This is in response to your October 26, 2000 letter and your oral testimony at the October 26, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I am writing in support of the Bus Rapid Transit (BRT) alternative as outlined in the Major Investment Study/Draft Environmental Impact Statement that has been prepared for the Primary Urban Corridor Transportation Project.*

   Response: Comment noted. It states the commenter's preference for an LPA.

2. *The BRT alternative will make Honolulu a better, more livable city with less traffic. The costs associated with the automobile are immense. We can't continue to build more highways or double deck our freeways. Roadways and parking lots are expensive to build. Automobiles pollute the air and water. The best solution is to improve public transportation with the BRT alternative.*

   Response: Comment noted.

3. *Bus rapid transit is greatly needed improve Honolulu's traffic congestion and to provide an alternative to cars dominating our city. I support the BRT alternative because it will provide mobility to people who choose not to own, cannot afford, or are unable to drive a car.*

   Response: Comment noted. It states the commenter's preference for the LPA.

4. *Mobility should not be limited only to people who can afford and operate cars. Honolulu needs to increase its transportation options, not only to decrease congestion, but to provide equal opportunity of mobility to all citizens – including children, seniors, the poor, or the disabled, or people who simply choose not to drive a car.*

   Response: The Refined LPA (BRT Alternative) provides an attractive, affordable transportation option to Oahu's non-driving community.

5. *I support the BRT Alternative as an alternative to give people expanded options besides the car.*

   Response: Comment noted. It states your preference for a Locally Preferred Alternative.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: CINDY SCHULTZ
Representing: SELF
Address: 5314 Oio DR
Honolulu HI 96821

Please make any comments below:

I am against BRT for the following
- We can not afford to eliminate parking spaces to force people to ride
- try coning off these lanes and see what a driving nightmare it will become.
- we can not afford the cost now let alone the cost overruns.
- the state needs to improve the program that is poorly running now - education, transportation, sewer & water etc. - we don't need more BIG GOV
- I am a delivery person and getting around now is a nightmare
- COST & POOR PLANNING
- stop giving for uninsured drivers and getting people without insurance off the road would help.

- I'm not against mass transit - just this plan

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL O. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00624

November 13, 2002

Ms. Cindy Schultz
5314 Oio Drive
Honolulu, Hawaii 96821

Dear Ms. Schultz:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *We can not afford to eliminate parking spaces to force people to ride.*

   Response: Comment noted.

2. *Try coning off these lanes and see what a driving nightmare it will become.*

   Response: A test of closing a lane is not a test of what will happen with the BRT, it is only a test of what happens when a lane is closed which is something everyone knows the consequences of from when lanes are temporarily closed during utility construction.

   As is pointed out in Chapter 4 of the FEIS, over time there will be more than enough people diverted from autos to transit to offset the impact of converting lanes for priority use by buses. This diversion from autos will only happen once it is clear that the BRT installation is a permanent improvement, not part of some test.

   What is proposed with the first branch between Iwilei and Waikiki will be a good test of the ability of BRT to attract new riders and the impacts of converting lanes in selected locations.

3. *We can not afford the cost now let alone the cost overruns.*

   Response: This project has been developed following City Council policy to not increase taxes. The financial analysis (Chapter 6 of the FEIS) shows that no increases in existing taxes or new taxes will be required to fund the project as proposed.

4. *This state needs to improve the programs that it is poorly running now – education, transportation, sewer and water, etc. – we don't need more BIG GOV.*

   Response: Comment noted. No response required.

5. *I am a delivery person and getting around now is a nightmare.*

   Response: Comment noted. No response required.

6. *COST & POOR PLANNING*

   Response: It is unclear what this statement means.

7. *Stop paying for uninsured drivers and getting people without insurance off the road would help.*

   Response: It is beyond the scope of this project to analyze the effects of uninsured motorists.

8. *I'm not against mass transit – just this plan.*

   Response: Comment noted. No response required.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: ROD SCHULTZ
Representing: SELF
Address: 5314 OO DRIVE
HONOLULU, HI 9682

Please make any comments below:

No substantive materials

I am opposed to the BRT because:
- It requires tax dollars to supplement ridership costs that are better spent for public safety and infrastructure maintenance.
- The 3.3% ridership does not justify the cost.
- The loss of 900 street parking spaces adversely affects small business and personal business.
- The impedence of traffic on affected streets is unwarranted and will result in gridlock.
- Adversely affecting traffic around the Home Depot/Costco shopping block on Nimitz Highway will hinder shopping. You cannot carry large packages, lumber, or groceries on a bus.
- The City's shell game surrounding the "no new taxes" claim is deceptive and insidious.
- Traffic congestion on Nimitz Highway is already terrible. That highway needs to be widened not narrowed by the BRT.
- Lack of publication and notification of this project on the part of the city shows deception and unwise tactics on the part of the city.
- Many other cities have built R/T systems witho

I frequently visit Waikiki's shops, restaurants and park facilities. This requires transiting Kuhio and Kalakaua avenue. The BRT will inhibit my ability to use these services.

fold here

Name: _____
Address: _____
_____
_____
_____

Ms. Cheryl Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

fold here

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00625

November 13, 2002

Mr. Rod Schultz
5314 Oio Drive
Honolulu, Hawaii 96821

Dear Mr. Schultz:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm speaking in opposition to the BRT.*

   Response: Comment noted. No response required.

2. *I am in favor of rapid transit system in general, but I'm opposed to the BRT scheme.*

   Response: Comment noted. No response required.

3. *I'm opposed because of the high cost to the taxpayers for a very small benefit to public transportation.*

   Response: Comment noted. No response required.

4. *I'm opposed to it because of the effect on traffic along Dillingham road, Kuhio Avenue, and Kalakaua in particular, roads that we in East Honolulu use frequently.*

   Response: Because these are major transportation corridors, traffic demand will continue to grow. This growth in traffic would result in congestion in the future without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

5. *It's incredible to me, with the new Home Depot on Alakawa Street and the new Costco there, that we're going to have the traffic on Nimitz and Dillingham Highways. You can't take lumber and bricks home from Home Depot on the bus.*

Response: It is not expected that the BRT will be able to serve every trip. There are many businesses along the alignment who will benefit from the increase in people able to access their stores.

6. *It's incredible to me that the City says that this will result in no new taxes. We're going to spend a billion dollars for the system, plus there's going to be a recurring cost to subsidize ridership, and yet we're not going to increase taxes. The money has to come from somewhere, and I guarantee it will come out of the texpayer's pocket.*

   Response: The financial plan provides for a project that can be paid for without an increase in taxes, using multiple revenue sources, 64 percent of which would be federal funds.

7. *Traffic on Nimitz Highway is already heavy. Diverting treffic from Dillingham to Nimitz Highway is just going to make Nimitz Highway transportation unbellevable.*

   Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes. As shown in Chapter 4 of the FEIS traffic on Nimitz Highway will be less congested with the Refined LPA than with the No-Build or TSM Alternatives.

8. *I agree with the people that just found out recently about this system. I just heard about it when it was just recently publicized, had no concept of the BRT system before that time. So any idea that this is publicly – that there's been public notification or adequate public notification is incradible.*

   Response: The community involvement for this project began in 1998 and has been the focus of numerous newspaper articles, radio shows, and television stories. There have been hundreds of meetings throughout the community where the project has been discussed.

9. *Finally, I hope that tha City learns from the State's recent disester in the cem vans and realizes that, "If this is so good for us, why doe it hurt so bad?"*

   Response: Comment noted. No response required.

10. *It requires tax dollars to supplement ridership costs that are better spent for public safety and infrastructure maintenance.*

    Response: It is up to the City Council to determine how tax revenues are spent. Ever since the bus system was made public, each City Council has recognized that there are many members of the community who depend on public transportation for their mobility.

City Council members also recognized that it would be far more costly to widen and build new roads to accommodate bus riders if they were in autos instead.

11. *The 3.3% ridership does not justify the cost.*

    Response: See response to comment #10.

12. *The loss of 900 street parking spaces adversely affects small business and personal business.*

    Response: DTS is aware that the proposed elimination of on-street parking spaces is of concern to small businesses, as well as residences. As discussed in Section 4.3, in areas where a large concentration of parking spaces would be affected, replacement parking in new off-street parking facilities would be considered, but only if they meet other livable community objectives and are the result of community-based planning.

13. *The impedance of traffic on affected streets is unwarranted and will result in gridlock.*

    Response: See response to comment #7.

14. *Adversely affecting treffic around the Home Depot/Costco shopping block on Alakawa Street will hinder shopping. You cannot carry large packages, lumber, or groceries on a bus.*

    Response: It is not expected that the BRT will be able to serve every trip. There are many businesses along the alignment who will benefit from the increase in people able to access their stores.

15. *The City's shell game surrounding the "no new taxes" claim is deceptive and insidious.*

    Response: Comment noted. It is a statement of opinion.

16. *Treffic congestion on Nimitz Highway is already terrible. That highway needs to be widened not narrowed by the BRT.*

    Response: Nimitz Highway will not be narrowed by the In-Town BRT. To the contrary, the SDOT has plans to increase the capacity of Nimitz Highway by installing an A.M. peak period contra-flow lane.

17. *Lack of publication and notification of this project on the part of the City shows deception and remrod tactics on the part of the city.*

    Response: The community involvement process for this project began in 1998 and has been continuous since that time. The public will continue to be involved in the project throughout design and construction.

18. *Many othar citias have built R/T systams without impacting traffic; why can't we?*

    Response: See response to comment #7.

19. *I fraquantly visit Waikiki's shops, restaurants and park facilities. This requires transiting Kuhio and Kalakaua Avenue. Tha BRT will inhibit my ability to use thesa services.*

    Response: See response to comment #7.

20. *Tha In-Town BRT will provida an altemative to driving to the shops, restaurants and parks on Kuhio and Kalekaua Avanuas.*

    Response: Comment noted. No response required.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Cliff Slater

3105 Pacific Hts Rd Honolulu HI 96813 Ph: (808) 524-5619 Fax: (808) 545-4485 e-mail: cslater@lava.net

APR 2 0 2002

April 20, 2002

Ms. Cheryl D. Soon, Director
DEPARTMENT OF TRANSPORTATION SERVICES
City & County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813
(808) 523-4125

Ms. Genevieve Salmonson, director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813
(808) 586-4185

Dear Ms. Soon and Ms. Salmonson:

Supplemental Draft Environmental Impact Statement

Attached are my comments on the Supplemental Draft Environmental Impact Statement (SDEIS)

Sincerely,

Att: Comments on the SDEIS.

CDS/vm

Comments on the Supplemental Draft Environmental Impact Statement

by Cliff Slater

> "Political skill is the ability of foretell what is going to happen tomorrow, next week, next month and next year. And to have the ability afterwards to explain why it didn't happen." Sir Winston Churchill.

The Supplemental Draft Environmental Impact Statement (SDEIS) is deficient in failing to plan on reducing traffic congestion, failing to justify its unprecedented predictions for Bus/Rapid Transit ridership, and failing to address the many proven alternatives which have elsewhere been shown to be more effective than what the City proposes.

First, Honolulu commuters are expecting that the *Primary Corridor Transportation Project*[1] will give them some measure of relief from traffic congestion. Instead, the City's BRT plan predicts that traffic congestion, under the City's most optimistic BRT scenario, will be worse than it is today. The City plans to improve bus service by removing existing automobile lanes and changing them to exclusive bus lanes. In short, they will improve bus service for the 8% of commuters that use it, but only by making traffic congestion worse for the 92% of our citizens that drive.

Second, traffic congestion will be even worse than what the City projects because they will not meet their optimistic BRT ridership projections. Fewer riders will mean more cars.

Third, the serious decline in Honolulu's bus ridership over the past ten years is totally ignored in discussing projected ridership increases. Nor does the City address reasons for the long-term decline in the percentage of commuters using public transportation all over the U.S. These must be explained to make any sense of the City's projections.

Fourth, even if the City were to make its BRT budget estimates, the cost per each additional bus rider will be an outrageous $3,700 annually. Cost overruns will increase this. There are far more effective and cost efficient projects to be adopted that will also qualify for federal funds.

Fifth, like its former rail transit plan, the City has examined none of the alternatives that have proven to work elsewhere. We shall discuss these in detail.

Sixth, the Federal Transit Administration's (FTA) name is on the SDEIS giving the impression that they have examined and approved the plan.

Ten years ago the state of Hawaii employed outside transportation experts from the nation's leading universities to critique the rail transit proposal of the time.[2] No such outside critique was sought for the BRT plan. However, the experts' comments on the rail transit plan are for the most part valid for today's BRT plan. We shall quote from them extensively where appropriate.

[1] *Supplemental Draft Environmental Impact Statement: Primary Corridor Transportation Project.* U.S. Department of Transportation and the City and County of Honolulu. March 2002. (SDEIS)

[2] *An Evaluation of the Honolulu Rapid Transit Development Project's Alternative Analysis and Draft Environmental Impact Statement.* Hawaii Office of State Planning and University of Hawaii. May 1990.

One: Traffic congestion will get worse

> "...the primary benefit of rapid transit is not the reduction of automobile congestion. Rapid transit's primary benefit should be to substantially increase mobility for transit-dependent commuters."
>
> Executive Summary, *Evaluation of the Honolulu Rapid Transit Development Project's AA/DEIS.* Hawaii Office of State Planning. February, 1991.

You would think that when the City discusses *Improving Urban Mobility,* they mean reducing traffic congestion. They do not. What the city means is improving service for bus riders—at the expense of drivers. Here's what the plan says:

- "While greatly improving transit service and person carrying capacity, the ... BRT ... would result in a somewhat reduced Level of Service[3] for automobile traffic within the urban core."[4]
- "The ... BRT ... would provide more person carrying ability ... by reallocating roadway lanes from general ... use to transit or ride-share use."[5]
- "Due to their use of exclusive transit lanes, BRT vehicles could pass freely through congested intersections even though intersection LOS for the general-purpose lanes might be poor. The result would be less delay for transit riders and better transit schedule reliability."[6]

It is easy to figure out why traffic will get worse; many streets will have existing lanes turned into auto-free exclusive BRT lanes. Below are rush hour photos of affected City streets. Note that on Kapiolani Boulevard four lanes are going one-way into town. These will be reduced to just two lanes. Dillingham Boulevard presently has three lanes coming into town one-way in the morning; it will be reduced to ONE! See the SDEIS pp. 2-21 & 2-22 for a list of all the many streets that will lose lanes.

The City did not see fit to carry over existing congestion levels for 1995 for comparison purposes from the DEIS. However, table 1.2-9 on page 1-18 of the DEIS may be compared to table 4.2-3 on page 4-14 of the SDEIS to see that overall traffic congestion in the future with BRT is projected to be worse than today. Improving public transportation is unlikely to have any beneficial effects on traffic congestion. See Appendix I for comments on the 1992 rail plan's likely impact on traffic congestion by some of the nation's leading transportation experts. And bear in mind as you read them that grade-separated rail was obviously a better candidate for traffic congestion relief than BRT.

You can easily imagine what all this reduction in rush-hour road space will do to traffic. Review the photos on the page following.

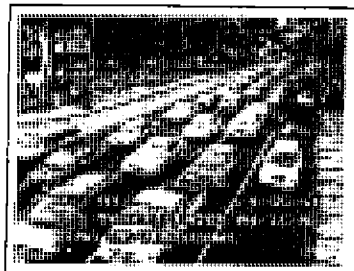
[3] Level of Service (LOS) is a measurement of traffic congestion conditions from A to F with A being the best and F being totally congested.

[4] SDEIS, S-8.7.

[5] SDEIS 4-11.5

[6] SDEIS 4-20.5

AR00016013



King Street at Punchbowl—one lane to be removed.

Dillingham at Waiakamilo—two lanes to be removed.

Dillingham at Kalihi St—two lanes to be removed.

Kapiolani at Keeaumoku Street—two lanes to be removed.

Ala Moana at Atkinson—two lanes to be removed

N. King St at Beretania—two lanes to be removed.

Two: Congestion will be even worse if the City's ridership forecasts are too optimistic:

Are the City's ridership forecasts believable? Let us review their earlier forecasts.

- The HART plan forecast in 1980 that if the City did nothing beyond already planned road improvements and merely expanded the bus system, ridership would increase to 100 million annually by 1995.[7] In fact, by 1995 ridership was only 73 million—a 37% over estimation.
- Subsequently, the Hali 2000 study, predicted in 1984 that if the City did nothing special beyond what they had already committed to, bus ridership would increase to 85 million riders by 2000.[8] However, actual bus ridership of 66.6 million for 2000 was less than it had been at the time of the prediction. Thus, this was a 22% over estimation.
- Subsequently, in 1992 the City forecast, for their rail transit plan, a 21% increase in ridership from 1991 to 2005[9] if they did nothing special.[10] So far, we have seen an 8.5-13% DECREASE.[11] Even if ridership does not decline further by 2005, it will be a 32%+ over estimation.

Now the City is forecasting that, once again, if we do nothing special, there will be 286,700 daily bus trips in 2025[12] against 1991 trips of 206,650, a 39% increase. However, since 1991 we have had this decline in ridership and so, to make their forecast, they will need to increase simple, regular bus ridership 54%.

Now remember that this decline in ridership for 1991-2000 has occurred despite a 5% increase in Oahu's population and more buses in use—from 475[13] to 525.[14] And ridership is still declining as of the latest publicly available data of September 2001.[15]

Given the above it is impossible to believe that the City will actually make anything like a 54% increase.

On top of the "No Build" forecast the City wants us to believe that the BRT will boost this to 336,700 daily transit trips[16] vs. 206,650 trips in 1991 (about 186,000 today).[17]

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[7] Transit Coalition for Honolulu. *The Hart Book.* 1981.

[8] The daily data of 274,000 was changed to annual to allow comparisons.

[9] Final Environment Impact Statement. 4-10.7

[10] This is the so-called No-Build Alternative, defined as those eight roadway projects already committed for in the next two years, and expansion of bus service for areas planned for development.

[11] *State Data Book 2000.* Table 18.24. See also Appendix III.

[12] SDEIS, Table 7.1-2

[13] 1993-4 State Data Book

[14] 2000 State Data Book

[15] American Public Transportation Association statistics to September 2001.

[16] SDEIS 7-6. These are linked trips, which is to say, from departure point to destination regardless of transfers. This is different from what the City normally reports which is boardings. If you transfer once on your way to your destination it will count as two boardings. Typically, for the system overall, there are 16% more boardings than trips.

[17] SDEIS 4.5.4.

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No city in the U.S. has experienced such an increase in public transportation no matter what they have done—rail transit, busways or anything else—once they were past the initial government takeovers and subsequent massive deficits of the 1970's.

One can begin to understand why many University of Hawaii specialists in economics and forecasting wrote the City Council in 1992 about its then rail transit plan, saying, "We have little faith in the projected ridership and cost figures."[18]

One can also understand the outpouring of criticism from the state's own distinguished experts on the flaws in the ridership projections (see Appendix I). One of them was Dr. Moshe Ben-Akiva, Turner Professor of Civil Engineering at MIT, and a forecasting colleague of Nobel Prize winner, Professor Daniel L. McFadden. Ben-Akiva said of the 1992 exercise, "I question the validity of the forecasting procedure..." and "I am not convinced that any of the models is transferable to other situations and I would recommend not to use them without further testing." And "Any forecasting exercise of this nature would be associated with significant uncertainties."

One of the recommendations that came out of the U.S. Dept. of Transportation's review of the highly flawed rail transit forecasting of the 1970s and 1980s was that planners should "acknowledge that uncertainty in achieving any specific level of predicted ridership levels exists," and should, "be conveyed simply by expressing forecast ridership for each alternative as a range rather than a single point value."[19]

What should give us pause is that City forecasts for the last 30 years have been consistently in error and in the same range of 30%+ as those experienced elsewhere. Yet this latest forecast of BRT ridership, the 336,700 riders projected for 2025, is shown to the nearest hundred. This conveys to the reader a certainty to the nearest 3/100ths of one percent, a ridiculous claim.

The best way to test forecasting models is to backcast. You go back to the 1984 data from the Hali 2000 study and and use it in your model to forecast for 2001. Then go back to the 1992 data from the rail transit FEIS and again forecast for 2001. If the forecasts match the actual outcome then your model *might* have a chance of being right about the future. Certainly if a model cannot even backcast, it should not even be considered when risking taxpayers' monies. This has not been done.

Three: The long-term declines in ridership must be explained

> "Since the entire justification for the project rests on significant rates of electing public transportation over the private automobile, the failure to discover what would influence this choice may be a serious flaw." Dr. Canan. *Evaluation of the Honolulu Rapid Transit Development Project's AA/DEIS.* Hawaii Office of State Planning. February, 1991.

World War II aside, the per capita use of public transit peaked in Hawaii (and the U.S.) in the early 1920's when the automobile began to compete with streetcars and buses. It continued declining until World War II when it then rose sharply with the introduction of gas rationing. At war's end, when rationing ended, the decline continued again until reaching its all time low in 1971.[20] At that time, the City socialized the then profitable bus system.[21]

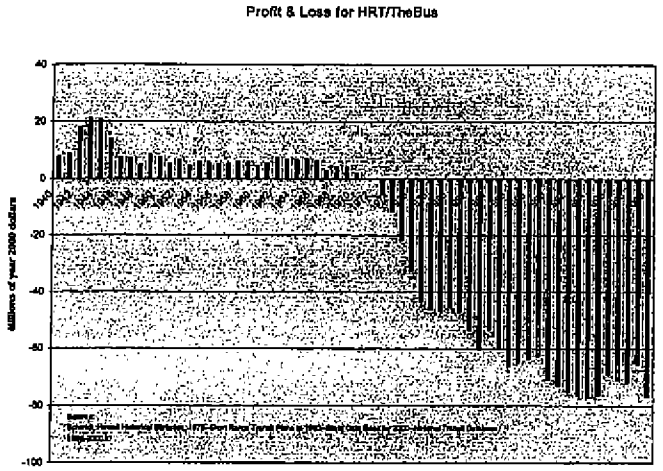
[18] University of Hawaii faculty members. *Memorandum to Members of the Council,* City & County of Honolulu. November 7, 1991.

[19] Pickrell, Don H. Urban Rail Transit Projects: Forecast Versus Actual Ridership and Costs. U.S. Dept. of Transportation. October 1990. p. 74.

[20] Total annual transit rides, divided by population, or per capita transit use, is what used to be called the *riding habit.* In the days of privately operated public transportation it was considered the key indicator of transit viability. For example, in Honolulu proper in 1920 we had 17 million transit rides with a population of just 82,000—a riding habit of 207—and solidly profitable. By 1998 the area covered had expanded to the whole of Oahu and we had 71 million riders but a population of 872,500—a riding habit of 81. (see chart below.) See Appendix V for chart.

[21] See *Annual Report for 1971.* Honolulu Rapid Transit Co. Ltd.

Once the City took over, it poured money into new routes to the suburbs, up the hillsides, and around the island. With new buses and new routes, transit use rose again—albeit this time at a heavy cost to the taxpayer. In 1984 the per capita transit use peaked once more and then began another decline that has continued for the last 16 years.



The principal causes of the decline in public transportation use are well-known and well documented. The choices we make between public transportation and automobile are primarily functions of changes in real incomes, commuting costs and service availability.

As real (net of inflation) incomes increase, people tend to use public transportation less. Public transportation service is one of what economists technically refer to as *inferior goods*—those goods and services that the more income you have, the less you want them.[22] Thus, over the long-term, increases in incomes work against transit ridership.

When real automobile commuting costs decline, people tend to use automobiles more. Conversely, increases in auto costs drive people to public transportation. When service availability declines, such as less frequent bus service, people tend to switch to automobiles.

[22] UCLA's Professor George Hilton pointed this out in 1967 saying, "...an increase of one percent in family income will typically reduce the family's use of rail passenger service by 0.6 percent. Thus, rail passenger trains provide an inferior service with respect to income, analogous to potatoes, farinaceous foods, and other inferior goods, consumption of which decreases with increments in income." Hilton, George W. *Rail Transit and the Pattern of Modern Cities: The California Case.* Traffic Quarterly, vol. XXI, no. 3. July 1967. p. 388.

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Changes in real fares also impact ridership. The American Public Transportation Association calculates that, "On the average, a ten percent increase in bus fares would result in a four percent decrease in ridership."[23]

Commuting costs also include the value we place on our time, which we tend to value at approximately what we earn. This is an important, albeit mostly intuitive, decision that commuters make. For example, some downtown commuters park their cars on Beretania Street at around $70 a month and others park them near the center of downtown for $150. The more affluent value their time more and tend to choose the more expensive parking. The less affluent choose the longer walk and the cheaper parking.

Parking costs are often the deciding factor in the commute decision. Our state government significantly subsidizes parking costs for state employees thus encouraging them to commute by car.

Our city government requires developers to provide minimum amounts of parking in their buildings. This has encouraged the construction of far more parking than can be economically justified and thus parking costs are far lower than they would be if left to market forces. This again has encouraged people to drive.

Service availability is usually a function of residential density. The higher density, the closer are bus stops and the greater the frequency of buses. People moving from Kaimuki to Makakilo will tend to use bus service less since bus stops will often be further away and buses less frequent.

Most of these factors are working against future public transportation increases. Incomes are rising, fares are increasing, parking costs are steady, density of residential areas is generally declining as more people leave the inner city and move to suburban areas such as those in the Leeward areas.[24]

A smaller percentage of workers are using public transportation to get to work both locally and nationally. Latest estimates of the 2000 Census journey-to-work data (due later this year) are that it will show Hawaii having a significant reduction in the percentage of workers using public transportation to commute than did in 1990.[25] This is a trend that has been ongoing nationally and locally since 1980.

In summary, bus ridership is not going to increase by merely "visioning"—a euphemism, for "wishful thinking." Voters should demand of their elected officials solid justification in forecasting increases in bus ridership—more than just improving their re-election chances.

Fourth: The City cost estimates

The BRT plan's capital costs will be $750 million more than the No-Build alternative half of which will be federally funded. It is incorrect to dismiss the federal funding as "free" money. The fact is that there are many sensible alternatives that would generate equal or greater funding than BRT.

For example, a busway qualifies for 80% federal funding and its operating costs would be minimal. A busway would allow City buses to operate more frequent schedules because they

[23] APTA's online paper on fare elasticities.

[24] See Table 1.14 of the 2000 State Data Book showing 1990-2000 population changes by district and census tracts. Honolulu District lost 5,000 residents while Ewa District gained 42,000.

[25] See Demographia Cox for 2000 data.

would not be operating on clogged highways. Vanpools, jitney buses, shared-ride taxis and other high-occupancy vehicles would be far more popular for the same reason.

And it must be remembered that a rail transit line or a bus system expansion carries with it a massive increases in operating costs. Highways, on the other hand, have relatively minor maintenance per passenger carried.

It is difficult to believe the cost forecasts for BRT because they tell us that there will be a 49 percent increase in jobs in public transit[26] yet there will only be a 24% increase in operating and maintenance costs.[27] However, since employee costs are typically 70% of operating costs,[28] how can this possibly be?

The City's calculation of the cost for each new ride demonstrates the poor value of the BRT plan. The calculation is $7.42 for each additional ride for the BRT over and above that of the No-Build alternative. This amounts to $3,710 annually per new rider.[29]

Fifth: Few real alternatives are being considered:

> "Perhaps what is most surprising, and to some extent alarming, about the alternatives presented is that few real choices are offered." Dr. Cervero p. 3.7
>
> "The TSM option appears "born to lose," as most TSM options are in alternatives analyses." Dr. Rutherford p. 7.2
>
> Evaluation of the Honolulu Rapid Transit Development Project's AA/DEIS. Hawaii Office of State Planning. February, 1990.

The City has not proposed, or even examined, alternatives that have been proven to work elsewhere. Nor did they for the 1992 rail transit plan.[30] They merely keep proposing the conventional solutions to solve our traffic problems that have not worked anywhere else. This should be recognized and the public told the real and uncomfortable truths.

The fact is that the problems we face in transportation are as myriad as are the solutions needed. Let's take some examples of problems and possible solutions:

- *Congestion caused by people commuting at normal daytime hours to major job centers such as downtown and Waikiki.*
  These trips are one-time peak hour trips and TheBus is not the answer. What commuters need to get them out of their cars is door-to-door transportation. The most efficient way to do this with vanpools. The problem is that the vanpool is priced at $70 a month vs. the Express Bus at $25. This makes the bus the hands down winner for people on a tight budget. However, the price for TheBus does not reflect its cost whereas the vanpool does.[31] If the Express Bus were to charge commuters its cost of $175 per rider per month, few would ride it. Obviously, if anything, we should be subsidizing vanpools instead of Express Buses.

[26] SDEIS S-9. Transit jobs forecast to increase from 1,181 to 1,760, or 49%.

[27] SDEIS 6-5. The forecast is operating costs for the BRT plan to be $188 million in 2010 vs. $152 million today for No-Build, all expressed in 2010 dollars.

[28] 1996 National Transit Database System Wide Information for Honolulu DTS.

[29] The City shows the additional cost for each new ride as $7.42. Allowing commuters 500 rides annually (250 trips x 2 daily) is $3,710 cost per new rider annually. Source: SDEIS Table 7.3-1B on page 7-12.

[30] See Appendix III.

[31] The vanpool covers 90% of its operating cost whereas the Express Bus only covers 15%.

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Another fine example is that offered by Honolulu's tour bus operators whose vehicles are not that busy during commute hours. They have offered guaranteed seat Express bus service that would require a subsidy far less than what it is currently costing the City. Either of these services can provide commuter service for hotel workers and others who tend to commute at set times. A study participated in by state workers in 1991 showed that 91% of participants were very interested in door-to-door guaranteed-seat service.[32]

- *Congestion caused by people moving around the Urban Center throughout the day.*
  TheBus is not the best way to attract people from their cars for journeys from say, Downtown to Waikiki; it is too slow. Honolulu's jitney buses of the 1930's with their smart uniformed drivers were then much faster and more popular than the streetcars judging from the evidence given during HRT's suit against them in 1940. At that time the public pleaded with the court for the jitney buses to stay. As a current example, the air-conditioned handsome jitney buses in Atlantic City provide service at 40-second intervals—and they run 24 hours a day.
  Another option is the use of shared-ride taxis. These taxis are able to take many commuters at prices lower than exclusive ride taxis and since they accommodate more riders, relieve traffic congestion. They are widely used in Washington, DC and elsewhere but illegal in Honolulu.
- *A growing annual bus subsidy that is now over $100 million annually.*[33]
  Our bus system is the most efficient government bus system in the U.S. We also have a wonderful post office. You can be proud of them as long as you do not compare either of them with their profitable counterparts such as Atlantic City jitney bus service and Federal Express. There are ways to reduce the heavy burden on taxpayers and vanpools, private bus use, shared-ride taxis and jitney buses are just some of them.
  Ten years ago, Britain's London Transport was losing 40 cents on every dollar they took in. Today, it is privatized and profitable with the same level of service it had before. Buenos Aires, Argentina, thirty years ago lost more money than TheBus. Today, a myriad companies run 18,000 buses, none more than 23 passenger, and they are profitable and no longer a drain on the taxpayer.
- *During rush hours all highways coming into town from the Leeward area are far too congested.*
  COST first proposed ten years ago that we should examine the feasibility of a new busway along the same alignment as the former rail transit proposed line from Waiawa to about the old OR&L rail station downtown. It would be two lanes with a safety lane, one-way into town in the morning and one-way out in the afternoon with three or four places for ingress and egress to the main freeways. It could be either state-funded for HOV van pools, high-occupancy autos and buses or it could be privately funded as a tollway. Motorists pay to be on it but it would take a great deal of traffic off existing freeways. Nothing has been done about this proposal.
  A busway would expand leeward mobility far more than BRT, cost less and qualify for a greater percentage of federals funds.

[32] Flannelly, K.J., Flannelly, L., McLeod, M.S., Jr., Behnke, R.W. *Direct Comparison of Commuters' Interests in Using Different Modes of Transportation.* Transportation Research Record #1321. Transportation Research Board. 1991.

[33] Including capital costs.

FTA misrepresentation:

The Federal Transit Administration's (FTA) name is shown above the City's on the SDEIS giving the impression that they have examined and/or written the plan with the same kind of input as the City planners and approved it. Unless the FTA has indeed carefully examined the plan and signed off on its forecasts then it should either remove its name from the Final EIS or make it clear to the public that it does not stand behind these forecasts but is merely accepting "local decisions."

Summary

The problem is that the City never spends time analyzing our traffic and transportation problems. Instead they get "visions" of the wishful thinking, ribbon-cutting variety. Then the solution drives everything else. To paraphrase the old saying, they put the train before the passenger.

And, as with all governments, they tend to simplistic views of complicated problems that will allow them a one-size-fits-all solution. Give them responsibility for clothing and you get the Mao jacket and the old Soviet baggy suit. Give them transportation and it's the one-size bus.

What is needed is a review of what has worked elsewhere in improving mobility, ameliorating traffic congestion and reducing costs.

- New York City shows us that having the City take a hands-off approach to parking and letting the market drive it significantly reduces automobiles on the road.
- Honolulu's own experience with vanpools shows us that using vouchers in conjunction with vanpools would allow us to simultaneously increase ridership and lower costs.
- Buenos Aires and London's experiences with privatization show how we could provide better service at lower cost.
- Door-to-door buses and vans using busways such as Washington DC's Shirley Highway, and others elsewhere, show us that busways can carry far more riders than rail transit lines.
- Atlantic City's Jitney buses today and Honolulu's experiences during the 1930's show us how to run a profitable urban service.
- Washington DC's shared-ride taxis show us how to increase highway capacity during rush hour.

In short, we need a businesslike approach to our traffic and transportation problems rather than a bureaucratic one.

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Notes to Appendices I-III

The written comments on the 1990 Draft Environmental Impact Statement were submitted by those listed below and a summary was prepared by University of Hawaii staff. The final document was published as *An Evaluation of the Honolulu Rapid Transit Development Project's Alternative Analysis and Draft Environmental Impact Statement.* Hawaii Office of State Planning and University of Hawaii. May 1990.

Dr. Penelope Canan, Professor of Sociology at the University of Denver and faculty director of the University's International Institute for Environment & Enterprise. She has served as the chair of the Environment and Technology Section of the American Sociological Association.

Dr. Moshe Ben-Akiva, Turner Professor of Civil Engineering at MIT. He works closely with Nobel Prize winner, Professor Daniel L. McFadden on forecasting issues.

Robert Cervero, Professor of Urban and Regional Planning at the University of California, Berkeley, and a member of the Editorial Board, *Journal of the American Planning Association.*

G. Scott Rutherford, is Professor of Civil and Environmental Engineering at the University of Washington and Director of its Transportation Engineering Graduate Studies Program.

Donald Shoup, Professor and Chair of Urban Planning at University of California, Los Angeles and is also Director, of UCLA's Institute of Transportation Studies.

John R. Pucher, Professor of Urban Planning at the Blaustein School of Planning and Public Policy at Rutgers University.

What follows are quotations from the *Evaluation.* For ease of checking these quotations, the number shown after the author's name at the end of each quotation refers to the page number and the quotation's position on it. Thus, 10.5 refers to a quotation that is on page 10, 50% down the page.

Appendix I—On traffic congestion

"A rapid transit system will not be likely to improve [traffic congestion], and such improvements should not be a major selling point for the system." Rutherford 1.5

"... it is debatable whether any noticeable impact will occur on highway facilities ..." Rutherford 6.5

"... estimates of fuel, pollution, and time savings on highway facilities are generally paper exercises that seldom occur in the real world." Rutherford 3.5

"The Final Environmental Impact Statement should more clearly state that the primary benefit of rapid transit will be to substantially increase mobility for transit-dependent commuters." UH 3.7

"...the primary benefit of rapid transit is not the reduction of automobile congestion. Rapid transit's primary benefit should be to substantially increase mobility for transit-dependent commuters." UH 24.3

"...it appears that relatively few public benefits of any regional significance will result from any of the fixed guideway alternatives." Cervero 14.3

"...it would be highly misleading to measure the success or failure of the proposed transit system solely on the basis of its ability to reduce auto congestion. To the extent that it increases the travel speed of current bus riders, who are slowed down by roadway congestion, this would be a benefit even if congestion levels on roadways did not fall at all. At least bus riders, who are not at all responsible for creating the congestion problem on the roads, would be less likely to suffer from it." Pucher 12.5

"The only really effective way to reduce auto congestion is by raising the price of auto use ... and by giving traffic priority to buses and high occupancy vehicles." Pucher 12.4

"In order to increase transit's mode splits to the 20-30% range, a level that would begin to yield quite noticeable and important social and environmental benefits, some combination of the following initiatives would likely need to be introduced: increased fuel taxes and registration fees; elimination of free or heavily subsidized parking; introduction of an auto-restricted zone in the core area (such as practiced in Singapore); creation of HOV-lanes and contra-flow lanes that give buses operating on surface streets substantial speed advantages..." Cervero 11.6

Appendix II—On forecasting

"I question the factoring of the transit trip table on the basis of population and employment growth, mainly because over the last decade Honolulu has shown rapid growth in everything but transit ridership...This same pattern has been observed in many other U.S. cities." Rutherford 2.5

"...the rates of growth for transit have not been in lock step with population and employment growth." UH 31.9

"The City's...model assumes that growth in transit ridership can be related as a linear function to growth in population and employment. This is a simple assumption that the City made for convenience. Although we have reasons to doubt the validity of this assumption, we have no better substitute." UH 36.7

"The City's consultants used a "pivot-point" methodology to project ridership for the different alternatives in the year 2005. This method, which was endorsed by UMTA, has only been used elsewhere for rail extension projects, rather than for a complete system." UH 2.2

"The major weakness that reoccurs at several phases of the ridership forecasting methodology is the absence of validation against local data." Ben-Akiva 9.5.

"...no evidence is presented in the report on the validity of the...tables." Ben-Akiva 2.8

"...the level of accuracy of these boarding counts is not specified." Ben-Akiva 2.8

"The report does not present data to support these assumptions." Ben-Akiva 3.4

"My conclusion is that the selected values for the parameters of the mode choice model have not been sufficiently justified." Ben-Akiva 7.7

"I question the validity of the forecasting procedure..." Ben-Akiva 7.9

"I am not convinced that any of the models is "transferable" to other situations and I would recommend not to use them without further testing." Ben-Akiva 8.7

"Any forecasting exercise of this nature would be associated with significant uncertainties." Ben-Akiva 9.8

"...it is possible that parallel bus routes that now provide better service to some will experience a reduction in service level...it should be pointed out that several new guideway projects in the U.S. attempted to force an unnatural number of trips to the guideway, even for short segments of longer bus trips. Some systems actually had lower total transit ridership after a fixed guideway system was built." Rutherford 6.6

"Since the entire justification for the project rests on significant rates of electing public transportation over the private automobile, the failure to discover what would influence this choice may be a serious flaw." Canan 1.8

Appendix III—Inadequacy of the alternatives considered

1. General.

"Perhaps what is most surprising, and to some extent alarming, about the alternatives presented is that few real choices are offered." Cervero 3.7

"...we think that the TSM alternative has not been adequately defined in the AA/DEIS." UH 17.4

"The range of alternatives considered in the AA/DEIS was disappointingly narrow and might have included other options." Rutherford 1.6

"I believe that it is vitally important to pay as close attention to the proper design of the TSM alternative as it is to the design of the rail alternatives before an informed decision can be made about whether and how to finance new rail transit." Shoup 12.9

"The proper specification of this [TSM] alternative is crucial, because it affects all the subsequent calculations of how many more riders the rail system will attract, and how much extra revenue will have to be raised to finance the rail system...it does *not* involve any other of the now common transportation *demand* management techniques that are an integral component of transportation system management. I would argue that the TSM alternative is inadequately specified, and thus that the contribution that TSM can make toward improving transportation is *underestimated*. If this is true, the improvements attributable to the rail alternatives are *overestimated*." Shoup 12.3

2. Busways.

COST COMMENT: Busways as used by the consultants here refers to grade-separated or barrier-separated lanes reserved for buses and high occupancy vans and cars. They are also sometimes referred to as transitways.

"In particular, what is lacking is a serious investigation of several viable dedicated busway options." Cervero 3.4

"Where the current set of alternatives really fall short is in ignoring various busway configurations as a fundamental option to rail transit." Cervero 5.4

"Quite aside from the neglect of low cost TSM alternatives, there is no exploration of the possibility of investing more in HOV lanes for buses and carpools, as an intermediate level of investment between the No-Build alternative and the rail alternatives." Shoup 12.8

"The additional riders that might be drawn to busways (by virtue of the superior quality of service offered buy buses feeding directly into neighborhoods) might more than make up any higher costs (if indeed cost estimates are accurate). If presented in terms of a more traditional benefit-cost framework, it is likely that busways would compare far more favorably with fixed guideway rail options." Cervero 4.9

"The real advantage of busways...is that they reduce...transferring, the Achilles heel of mass transit in many modern, low-density metropolises like Honolulu." Cervero 4.3

"...a TSM II could be considered that...might include contraflow lanes, busways, reversible bus streets ... " Rutherford 7.2

"In summary, I would recommend that an additional study be commissioned that seriously examined a range of busway options as legitimate contenders to the fixed guideway rail options." Cervero 5.3

3. Buses and Vanpools.

"...I do not believe a sufficient number of significant high-quality mass transit alternatives have been considered for Oahu." Cervero 3.3

> *COST COMMENT: Mass transit is used here with its normal meaning of vehicles moving people en masse such as in trains, buses, vans or taxis. By brilliant PR, the city has managed to co-opt it to solely mean rail transit.*

"It is particularly important that intensified and significantly upgraded bus transit options be considered for Oahu in light of the fact that the bus system already in place has proven itself to be one of the most heavily utilized and cost-productive operations in the country." Cervero 5.3

"Other TSM strategies, such as those involving regional vanpool services, timed-transfer bus facilities, and auto-restraint measures, are ignored." Cervero 3.9

D. Political Considerations.

"This criticism [of the City's TSM alternative], I believe, is less a reflection on the work of the consultants and more an outcome of pressures exerted by various political and special interest groups." Cervero 3.4

> *COST COMMENT: This may be acknowledging that Parsons, Brinckerhoff, the City's consultant for the Alternatives Analysis is also one of the nation's primary authorities on busways. They are the authors of High Occupancy Vehicle Facilities. December 1990.*

"The TSM option appears "born to lose," as most TSM options are in alternatives analyses." Rutherford 7.2

"As presented, the alternatives give the impression that a fixed guideway rail system, be it light or heavy rail, was pre-established at the outset to be the preferred high-capacity transit technology for Oahu." Cervero 3.8

Appendix IV

State Data Book, Table 18.24-- PUBLIC TRANSIT, FOR OAHU: 1991 TO 2000

[As of June 30. Tables in previous Data Book editions were based on calendar year. Service provided by City and County of Honolulu bus system]

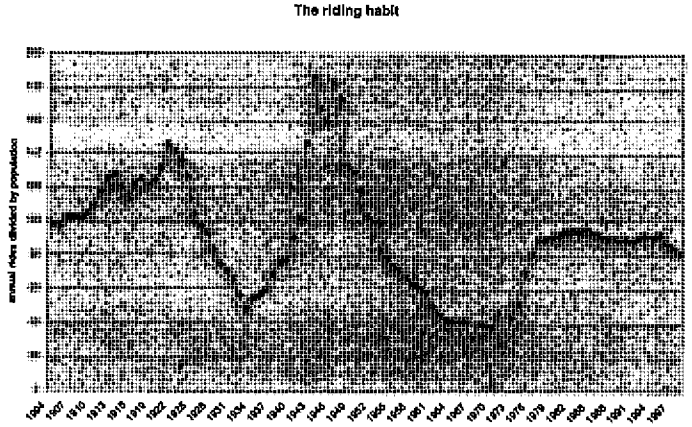
Year	Number of buses	Bus mileage 1/	Total passengers 2/	Revenues (dollars)
1991	510	18,063,079	72,815,706	18,757,312
1992	475	18,185,305	72,980,668	19,534,923
1993	470	18,120,044	75,557,318	19,837,616
1994	501	18,396,694	77,338,147	23,897,154
1995	508	19,031,466	72,745,086	25,058,736
1996	523	19,090,912	68,923,459	30,420,976
1997	524	19,452,528	68,634,884	29,804,091
1998	525	19,665,805	71,822,553	29,197,402
1999	525	19,639,602	66,236,147	27,819,265
2000	525	20,359,607	66,602,820	27,055,656

1/ Estimated number of vehicle miles.

2/ Estimated number of passengers, including senior citizens and disabled.

Source: City and County of Honolulu, Honolulu Public Transit Authority, records; Department of Transportation Services, records.

Appendix V



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DEPARTMENT OF TRANSPORTATION SERVICES

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TPD02-00627

November 13, 2002

Mr. Cliff Slater
3105 Pacific Heights Road
Honolulu, Hawaii 96813

Dear Mr. Slater:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 SDEIS Public Hearing and April 20, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm a 40-plus year resident. I have a bus pass. And I'm here to testify against the telebus.*

   Response: Comment noted. No response required.

2. *You've – one of the things that you have not heard is that the cost of the system for each additional rider on the BRT, as opposed to the TSM Alternative, each rider will be subsidized $3,500 annually.*

   Response: The system is not being built only for new riders. It will substantially benefit existing riders as well. Comparing total system capital and operating costs to only new riders is not meaningful except as a relative measure. From a relative standpoint the Refined LPA is more cost-effective than either the TSM or No-Build Alternatives, in terms of the cost per new rider served.

3. *That seems to me to be somewhat excessive. And I just don't believe that we're putting our money in the right place.*

   Response: Comment noted. It is a statement of opinion.

4. *The approach should be more, what is the 92 – you know, how are we going to solve traffic congestion for the 92 percent of the people who drive, in addition to taking care of the eight percent of the people who take the bus?*

   Response: The Refined LPA is the transit component of the island-wide transportation plan. The vast majority of the funding in the OMPO TOP 2025 Plan is for highway projects not transit. The Refined LPA will help reduce congestion by diverting some motorists out of their autos.

5. *Now, with only three minutes to address the City's voluminous paperwork, which I've gone through, I'm just going to stick to one issue, and that is, the City's absurd forecast for the No-Build Alternative. And what I'm about to say is all detailed and footnoted in the written testimony. If anybody wants it, they can contact me. The No-Build Alternative is essentially the one that says,*

If we only do what we've got now with some minor improvements, then what kind of ridership do we get? And I chose that no-build – those no-build forecasts rather than the BRT forecast, because we can compare past forecasts with what actually happened to the ridership.

Response: Comment noted.

6. *Secondly, this ridership, the no-build ridership, is the cornerstone on which the BRT forecast is based. And if this is not achieved, then there will be even more cars on the roads, and traffic congestion would be even worse than the City presently predicts.*

   Response: Comment noted.

7. *So if we look at Honolulu's forecasting record, first the Hart plan in 1960 overestimated what the 1995 ridership would be under the no-build scenario by 37 percent.*

   Response: This is not a relevant comment. Totally different forecasting models were used in 1992.

8. *Then the Hall 2000 study of 1984 overestimated the 1995 ridership by 30 percent.*

   Response: This is not a relevant comment. Totally different forecasting models were used in 1984.

9. *The City's 1992 forecast, which they did for the rail transit program, that overestimated the bus ridership for 2000 by 32 percent. You have to hand the City at least they're consistent.*

   Response: This is not a relevant comment. Totally different forecasting models were used in 1992.

10. *And just to sum up, okay, the City now tells us that, for the no-build, we're going to have a 54 percent increase from what we have today, and there is – we have about eight pounds of paperwork from the City, and there is not one place where that is addressed. And as somebody said a little earlier, the devil is in the details. If you don't get the ridership, you just got a lot of fancy hardware and no results.*

    Response: The projected increases in population, employment, service levels, ridership, etc between today and 2025 with the No-Build Alternative and the bases for these forecasts are documented in the FEIS.

11. *The Supplemental Draft Environmental Impact Statement (SDEIS) is deficient in failing to plan on reducing traffic congestion, failing to justify its unprecedented predictions for Bus / Rapid Transit ridership, and failing to address the many proven alternatives which have elsewhere been shown to be more effective than what the City proposes.*

    Response: The purpose of the BRT project is not to on its own reduce traffic congestion. It is one component of a larger transportation system. The DEIS, SDEIS, and FEIS Chapter 1 state the purposes of the Primary Corridor Transportation Project as:
    1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile.
    2. Support desired development patterns.

3. Improve the transportation linkage between Kapolei, which is envisioned to be the "Secondary Urban Center" of Oahu, and Honolulu's Urban Core.
4. Improve the transportation linkages between communities in the Primary Urban Center (PUC) to increase the attractiveness of in-town living.

As indicated in Chapter 4 of the FEIS, congestion will be less with the Refined LPA compared to the other alternatives. Ridership forecasts were prepared using state-of-the-art forecasting models. There are no proven alternatives elsewhere that are more cost-effective than the Refined LPA.

12. *First, Honolulu commuters are expecting that the Primary Corridor Transportation Project1 will give them some measure of relief from traffic congestion. 1 Supplemental Draft Environmental Impact Statement: Primary Corridor Transportation Project. U.S. Department of Transportation and the City and County of Honolulu. March 2002 (SDEIS)*

Response: See response to comment #10. It is unrealistic for commuters to expect that one project on its own will alleviate traffic congestion.

13. *Instead, the City's BRT plan predicts that traffic congestion, under the City's most optimistic BRT scenario, will be worse than it is today.*

Response: Not a correct statement. As shown in Chapter 4 of the FEIS, traffic LOS will be worse with the No-Build and TSM Alternatives compared to the Refined LPA.

14. *The City plans to improve bus service by removing existing automobile lanes and change them to exclusive bus lanes. In short, they will improve bus service for the 8% of commuters that use it, but only by making traffic congestion worse for the 92% of our citizens that drive.*

Response: Chapter 4 of the FEIS fully discusses the consequences of converting selected general purpose lanes to priority use by transit vehicles.

When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

15. *Second, traffic congestion will be even worse than what the City projects because they will not meet their optimistic BRT ridership projections. Fewer riders will mean more cars.*

Response: Comment noted.

16. *Third, the serious decline in Honolulu's bus ridership over the past ten years is totally ignored in discussing projected ridership increases. Nor does the City address reasons for the long-term decline in the percentage of commuters using public transportation all over the U.S. These must be explained to make any sense of the City's projections.*

Response: The decline in ridership of the bus system in Honolulu over the past decade is tied to the weak economy and minimal population growth that has occurred during this period.

The decline in the percent of people using transit in the U.S. has resulted from growth patterns in most cities that are difficult to serve effectively by transit. In contrast the concentration of growth proposed for the primary corridor combined with an improved transit system is why Honolulu is projected to counter this trend.

17. *Fourth, even if the City were to make its BRT budget estimates, the cost per each additional bus rider will be an outrageous $3,700 annually. Cost overruns will increase this. There are far more effective and cost-efficient projects to be adopted that will also qualify for federal funds.*

Response: The system is not being built only for new riders. It will substantially benefit existing riders as well. Comparing total system capital and operating costs to only new riders is not meaningful except as a relative measure. From a relative standpoint the Refined LPA is more cost-effective than either the TSM or No-Build Alternatives, in terms of the cost per new rider served.

18. *Fifth, like its former rail transit plan, the city has examined none of the alternatives that have proven to work elsewhere. We shall discuss these in detail.*

Response: Comment noted.

19. *Sixth, the Federal Transit Administration's (FTA) name is on the SDEIS giving the impression that they have examined and approved the plan.*

Response: The FTA is the federal lead agency for the project under NEPA. One of their responsibilities is to review and approve the MIS/DEIS, SDEIS, and FEIS.

20. *Ten years ago the state of Hawaii employed outside transportation experts from the nation's leading universities to critique the rail transit proposal of the time. 2 No such outside critique was sought for the BRT plan. However, the experts' comments on the rail transit plan are for the most part valid for today's BRT plan. We shall quote from them extensively where appropriate. 2 An Evaluation of the Honolulu Rapid Transit Development Project's Alternative Analysis and Draft Environmental Impact Statement. Hawaii Office of State Planning and University of Hawaii. May 1990.*

Response: Comment noted. We do not agree that the Honolulu Rapid Transit Project that was proposed ten years ago is comparable to the proposed Primary Corridor Transportation Project.

21. *"...the primary benefit of rapid transit is not the reduction of automobile congestion. Rapid transit's primary benefit should be to substantially increase mobility for transit-dependent commuters."*

Executive Summary, Evaluation of the Honolulu Rapid Transit Development Project's AA/DEIS. Hawaii Office of State Planning. February, 1991.

You would think that when the City discusses Improving Urban Mobility, they mean reducing traffic congestion. They do not. What the city means is improving service for bus riders – at the expense of drivers.

Response: This quote and the report cited pertain to the 1990 Honolulu Rapid Transit Development Project and is dated information that pertains to a different project. The cited report paragraph actually states: "The final environmental impact statement should more clearly state that the primary benefit of rapid transit will be to substantially increase mobility for transit-

dependent commuters. Rapid transit may relieve some traffic congestion, but that objective is more difficult to achieve, because of the large latent demand for auto travel in highly congested areas. Some of the other public benefits of rapid transit such as the increase in general mobility, the decrease in required downtown parking capacity, the opportunity to improve urban design and character, and the facilitation of both pedestrian travel and short, intra-city trips should also be discussed in the final environmental impact statement."

Urban mobility does not necessarily mean reducing traffic congestion. It entails providing residents with several options to utilize in making a trip, be that the automobile, transit, taxis, walking, or bicycling.

22. *Here's what the plan says:*

"While greatly improving transit service and person carrying capacity, the ... BRT ... would result in a somewhat reduced Level of Service for automobile traffic within the urban core." (SDEIS, S-8.7)

Response: The text actually states: "While greatly improving transit service and person carrying capacity, the TSM and Refined BRT Alternatives would result in a somewhat reduced LOS for automobile traffic within the Urban Core." (SDEIS, eighth bullet)

23. *"The ... BRT ... would provide more person carrying ability ... by reallocating roadway lanes from general ... use to transit or ride-share use" (SDEIS 4-11.5)*

Response: The text actually states: "Improvements within the In-Town urban core with the TSM and Refined BRT Alternatives focus on converting general-purpose traffic lanes to semi-exclusive and exclusive transit lanes. Doing so improves person-carrying capacity, thereby providing an alternative to the automobile for mobility within the Urban Core. (SDEIS page 4-11, fourth paragraph)

"Table 4.2-1 shows that the Refined BRT alternative would improve the person carrying ability within the Urban Core by an average of 11 percent over the No-Build Alternative. This means that to get an equivalent increase in general-purpose throughput, total Urban Core roadway lanes would have to be increased by almost two lanes in each direction, which will require major displacements." (SDEIS page 4-1, Section 4.2.1, third paragraph)

24. *"Due to their use of exclusive transit lanes, BRT vehicles could pass freely through congested intersections even though intersection LOS for the general-purpose lanes might be poor. The result would be less delay for transit riders and better transit schedule reliability." (SDEIS 4-20.5)*

Response: No response required. It is a direct quote from the SDEIS. It should be noted that the paragraph begins by stating: "Improving person carrying capacity in a congested urban area relies on the ability of the transit system to operate efficiently. Table 4.2-7 shows that the Refined BRT Alternative would be unique in providing a travel mode that could avoid the auto congestion at key intersections that is forecasted for all alternatives."

25. *It is easy to figure out why traffic will get worse; many streets will have existing lanes turned into auto-free exclusive BRT lanes. Below are rush hour photos of affected City streets. Note that on Kapiolani Boulevard four lanes are going one-way into town. These will be reduced to just two lanes. Dillingham Boulevard presently has three lanes coming into town one-way in the morning; it will be reduced to ONE! See the SDEIS pp. 2-21 & 2-22 for a list of all the many streets that will lose lanes.*

Response: The comment is incorrect. There are two (not three) through travel lanes in each direction on Dillingham Boulevard today. Besides, it is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

26. *The City did not see fit to carry over existing congestion levels for 1995 for comparison purposes from the DEIS. However, table 1.2-9 in page 1-18 of the DEIS may be compared to table 4.2-3 on page 4-14 of the SDEIS to see that overall traffic congestion in the future with BRT is projected to be worse than today.*

Response: As shown in Chapter 4 of the FEIS congestion will be less with the Refined LPA not worse compared to the No-Build and TSM Alternatives.

27. *Improving public transportation is unlikely to have any beneficial effects on traffic congestion.*

Response: As shown in Chapter 4 of the FEIS congestion will be less with the Refined LPA not worse compared to the No-Build and TSM Alternatives.

28. *See Appendix I for comments on the 1992 rail plan's likely impact on traffic congestion by some of the nation's leading transportation experts. And bear in mind as you read them that grade-seperated rail was obviously a better candidate for traffic congestion relief than BRT.*

Response: See response to questions 72, below. It should be noted that the information quoted was prepared over ten years ago for the Honolulu Rapid Transit Development Project. It is outdated information and the former rail project and the proposed BRT project do not have identical alignments, stop locations, etc.

29. *You can easily imagine what all this reduction in rush-hour road space will do to traffic. Review the photos on the page following.*

Response: See response to comment # 14.

30. *The HART plan forecast in 1980 that if the City did nothing beyond already planned road improvements and merely expanded the bus system, ridership would increase to 100 million annually by 1995. (Transit Coalition for Honolulu. The Hart Book. 1981) In fact, by 1995 ridership was only 73 million – a 37% overestimation.*

Response: The accuracy of travel demand forecasting models has improved significantly since 1980.

31. *Subsequently, the Hall 2000 study, predicted in 1984 that if the City did nothing special beyond what they had already committed to, bus ridership would increase to 85 million riders by 2000. (The daily data of 274,000 was changed to annual to allow comparisons.) However, actual bus ridership of 66.6 million for 2000 was less than it had been at the time of the prediction. Thus, this was a 22% overestimation.*

Response: The accuracy of travel demand forecasting models has improved significantly since 1984.

32. *Subsequently, in 1992 the City forecast for their rail transit plan, a 21% increase in ridership from 1991 to 2005 (Final Environment Impact Statement. 4-10.7) If they did nothing special. (This is the so-called No-Build Alternative, defined as those eight roadway projects already committed for the next two years, and expansion of bus service for areas planned for development.) So far, we have seen an 8.5 – 13% DECREASE. (State Data Book 2000. Table 18.24. See also Appendix III.) Even if ridership does not decline further by 2005, it will be a 32%+ overestimation.*

    Response: The relatively static population growth combined with the weak economy during the past decade, which were not anticipated when the 1992 forecasts were prepared, have resulted in the overestimation.

33. *Now the City is forecasting that, once again, if we do nothing special, there will be 286,700 daily bus trips in 2025 (SDEIS, Table 7.1-2) against 1991 trips of 206,650, a 39% increase. However, since 1991 we have had this decline in ridership and so, to make their forecast, they will need to increase simple regular bus ridership 54%.*

    Response: The forecast of 2025 ridership is consistent with the population growth forecast and return to a healthier economy than has prevailed during the past decade.

34. *Now remember that this decline in ridership for 1991 – 2000 has occurred despite a 5% increase in Oahu's population and more buses in use – from 475 ((1993-4 State Data Book) to 525. (2000 State Data Book) And ridership is still declining as of the latest publicly available data of September 2001. (American Public Transportation Association statistics to September 2001)*

    Response: See responses to comments #32 and #33.

35. *Given the above it is impossible to believe that the City will actually make anything like a 54% increase.*

    Response: Comment noted.

36. *On top of the "No Build" forecast the City wants us to believe that the BRT will boost this to 336,700 daily transit trips (SDEIS 7-6. These are linked trips, which is to say, from departure point to destination regardless of transfers. This is different from what the City normally reports which is boardings. If you transfer once on your way to your destination it will count as two boardings. Typically, for the system overall, there are 16% more boardings than trips.) vs. 206,650 trips in 1991 (about 186,000 today). (SDEIS 4.5.4.)*

    Response: The relationship between linked-trips and boardings is not a static percentage. It varies with possible changes in service provided and with changes in trip patterns.

37. *No city in the U.S. has experienced such an increase in public transportation no matter what they have done – rail transit, busways or anything else – once they were past the initial government takeovers and subsequent massive deficits of the 1970s.*

    Response: No one is comparing ridership to what it was in the pre-1970s.

38. *One can begin to understand why many University of Hawaii specialists in economics and forecasting wrote the City Council in 1992 about its then rail transit plan, saying "We have little faith in the projected ridership and cost figures." (University of Hawaii faculty members. Memorandum to Members of the Council, City & County of Honolulu, November 7, 1991.)*

    Response: Specialists in travel demand forecasting from the University of Hawaii have been involved in developing the forecasting models that were used in the current ridership forecasts.

39. *One can also understand the outpouring of criticism from the state's own distinguished experts on the flaws in the ridership projections (see Appendix I). One of them was Dr. Moshe Ben-Akiva, Turner Professor of Civil Engineering at MIT, and a forecasting colleague of Nobel Prize Winner, Professor Daniel L. McFadden. Ben-Akiva said of the 1992 exercise, "I question the validity of the forecasting procedure..." and "I am not convinced that any of the models is transferable to other situations and I would recommend not to use them without further testing." And "Any forecasting exercise of this nature would be associated with significant uncertainties."*

    Response: OMPO has spent the last 5 years developing a vastly improved set of forecasting models. These are the models used in the PCTP. Comments made in reference to the models used in 1992 are not applicable.

40. *One of the recommendations that came out of the U.S. Dept. of Transportation's review of the highly flawed rail transit forecasting of the 1970s and 1980s was that planners should "acknowledge that uncertainty in achieving any specific level of predicted ridership levels exists," and should, "be conveyed simply by expressing forecast ridership for each alternative as a range rather than a single point value." (Pickrell, Don H. Urban Rail Transit Projects: Forecast Versus Actual Ridership and Cost. U.S. Dept. of Transportation. October 1990. p. 74.)*

    Response: This recommendation from the Pickrell Report was not adopted by the FTA who oversee how forecasting is done.

41. *What should give us pause is that City forecasts for the last 30 years have been consistently in error and in the same range of 30%+ as those experienced elsewhere. Yet this latest forecast of BRT ridership, the 336,700 riders projected for 2025, is shown to the nearest hundred. This conveys to the reader a certainty to the nearest 3/100ths of one percent, a ridiculous claim.*

    Response: It is standard practice to show ridership forecasts as they are shown in the FEIS.

42. *The best way to test forecasting models is to backcast. You go back to the 1984 date from the Hall 2000 study and use it in your model to forecast for 2001. Then go back to the 1992 date from the rail transit FEIS and again forecast for 2001. If the forecasts match the actual outcome then your model might have a chance of being right about the future. Certainly if a model cannot even backcast, it should not even be considered when risking taxpayers' monies. This has not been done.*

    Response: The models used to forecast ridership were indeed calibrated using industry approved methods of validation.

43. *Since the entire justification for the project rests on significant rates of electing public transportation over the private automobile, the failure to discover what would influence this choice may be a serious flaw." Dr. Canen. Evaluation of the Honolulu Rapid Transit Development Project's AA/DEIS. Hawaii Office of State Planning. February, 1991.*

    Response: Again, the analysis cited was completed in April 1990 and pertained to the Honolulu Rapid Transit Development Project. It is not applicable to the PCTP.

44. *World War II aside, the per capita use of public transit peaked in Hawaii (and the U.S.) in the early 1920s when the automobile began to compete with streetcars and buses. It continued declining until World War II when it then rose sharply with the introduction of gas rationing. At war's end, when rationing ended, the decline continued again until reaching its all time low in 1971. (Total annual transit rides, divided by population, or per capita transit use, is what used to be called the riding habit. In the days of privately operating public transportation it was considered the key indicator of transit viability. For example, in Honolulu proper in 1920 we had 17 million transit rides with a population of just 82,000 -- a riding habit of 207 -- and solidly profitable. By 1998 the area covered had expanded to the whole of Oahu and we had 71 million riders but a population of 872,000 -- a riding habit of 81. See Appendix V for chart.)*

    Response: Comment noted.

45. *At that time, the City socialized the then profitable bus system. (See Annual Report for 1971. Honolulu Rapid Transit Co. Ltd.)*

    Response: It is interesting to note that in 1971 HRT Ltd and wholly-owned subsidiaries had $402,917 earnings in 1971 and in 1972 the parent company reported a $494,449 loss, while the 1972 consolidated statement of loss indicated a $109,149 loss. (Source: HRT, Ltd., Annual Report, 1972).

46. *Once the City took over, it poured money into new routes to the suburbs, up the hillsides, and around the island. With new buses and new routes, transit use rose again -- albeit this time at a heavy cost to the taxpayer. In 1984 the per capita transit use peaked once more and then began another decline that has continued for the last 16 years.*

    Response: Actually, the 1995 annual bus ridership exceeded 1984 (80,837,153 total passengers compared to 76,260,187, respectively).

47. *The principal causes of the decline in public transportation use are well-known and well documented. The choices we make between public transportation and automobile are primarily functions of changes in real incomes, commuting costs and service availability.*

    Response: Although this statement may be true, the author does not reference where this is documented and by whom it is well known. It can also be said that commuters that are provided a rapid transit system that provides a faster commute that includes limited stops along the route may choose public transportation instead of driving a car. This is evidenced by the popularity of the CityExpress! routes Honolulu has implemented.

48. *As real (net of inflation) incomes increase, people tend to use public transportation less. Public transportation service is one of what economists technically refer to as inferior goods -- those goods and services that the more income you have, the less you want them. (UCLA's Professor George Hilton pointed this out in 1967 saying "... an increase of one percent in family income will typically reduce the family's use of rail passenger service by 0.6 percent. Thus, rail passenger trains provide an inferior service with respect to income, analogous to potatoes, farinaceous foods, and other inferior goods, consumption of which decreases with increments in income." Hilton, George W. Rail Transit and the Pattern of Modern Cities: The California Case. Traffic Quarterly, vol. XXI, no. 3. July 1967. p. 388) Thus, over the long-term, increases in incomes work against transit ridership.*

    Response: The referenced document is 35 years old and refers to "heavy" rail. In the paragraph following the one quoted it states: "There is little question that the Bay Area Rapid Transit will be more successful than the Southern Pacific commutation service in attracting passengers from automobiles."

49. *When real automobile commuting costs decline, people tend to use automobiles more. Conversely, increases in auto costs drive people to public transportation. When service availability declines, such as less frequent bus service, people tend to switch to automobiles.*

    Response: Comment noted. Although the factors stated do affect automobile and transit use, other factors also affect their use including income, proximity of transit service provided, automobile ownership, etc.

50. *Changes in real fares also impact ridership. The American Public Transportation Association calculates that, "On the average, a ten percent increase in bus fares would result in a four percent decrease in ridership." (APTA's online paper on fare elasticities.)*

    Response: Comment noted. The publication quoted also noted that peak-hour commuters are much less responsive to fare changes than transit passengers traveling during off-peak hours.

51. *Commuting costs also include the value we place on our time, which we tend to value at approximately what we earn. This is an important, albeit mostly intuitive, decision that commuters make. For example, some downtown commuters park their cars on Beretania Street at around $70 a month and others park near the center of downtown for $150. The more affluent value their time more and tend to choose the more expensive parking. The less affluent choose the longer walk and the cheaper parking.*

    Response: Comment noted. Other factors regarding parking and costs include the location of the work place, work hours, employer parking subsidies, etc. It should be noted that the BRT would allow people an option to driving their cars and not having to pay for parking. There are many affluent people around the nation that choose public transportation for their commute over driving a car.

52. *Parking costs are often the deciding factor in the commute decision. Our state government significantly subsidizes parking costs for state employees thus encouraging them to commute by car.*

    Response: Comment noted.

53. *Our city government requires developers to provide minimum amounts of parking in their buildings. This has encouraged the construction of far more parking than can be economically justified and thus parking costs are far lower than they would be if left to market forces. This again has encouraged people to drive.*

    Response: See response to comment #50.

54. *Service availability is usually a function of residential density. The higher density, the closer are bus stops and the greater the frequency of buses. People moving from Kalmuki to Makakilo will tend to use bus service less since bus stops will often be further away and buses less frequent*

    Response: Comment noted.

55. *Most of these factors are working against future public transportation increases. Incomes are rising, fares are increasing, parking costs are steady, density of residential areas is generally declining as more people leave the inner city and move to suburban areas such as those in the Leeward areas. (See Table 1.14 of the 2000 State Data Book showing 1990-2000 population changes by district and census tracts. Honolulu District lost 5,000 residents while Ewa District gained 42,000.)*

   Response: These are unsubstantiated assertions. Fares have not increased to any greater extent than parking charges. Future growth plans call for the densification of the primary corridor not decline.

56. *A smaller percentage of workers are using public transportation to get to work both locally and nationally. Latest estimates of the 2000 Census journey-to-work data (due later this year) are that it will show Hawaii having a significant reduction in the percentage of workers using public transportation to commute than did in 1990. (See Demographia Cox for 2000 data.) This is a trend that has been ongoing nationally and locally since 1980.*

   Response: In reviewing the reference cited, what was not included was that Hawaii's employment also declined between 1990 and 2000, from 567,765 to 563,154 or a loss of 4,611 jobs. The transit market share for work trips also decreased between 1990 and 2000, from 41,827 to 35,368 or 6,453. To correct this trend the City is proposing major improvements to the bus system as embodied in the Refined LPA. Similar types of improvements in other cities have demonstrated the ability to reverse these trends and to divert people out of their autos and on to transit.

57. *In summary, bus ridership is not going to increase by merely "visioning" – a euphemism, for "wishful thinking." Voters should demand of their elected officials solid justification in forecasting increases in bus ridership – more than just improving their re-election chances.*

   Response: The ridership forecasts were not prepared by elected officials. The methodology used in preparing the forecasts is documented in the FEIS and in the Final Documentation for the OMPO Travel Forecasting Model Development Project.

58. *The BRT plan's capital costs will be $750 million more than the No-Build alternative half of which will be federally funded. It is incorrect to dismiss the federal funding as "free" money. The fact is that there are many sensible alternatives that would generate equal or greater funding than BRT.*

   For example, a busway qualifies for 80% federal funding and its operating costs would be minimal. A busway would allow City buses to operate more frequent schedules because they would not be operating on clogged highways. Vanpools, jitney buses, shared-ride taxis and other high-occupancy vehicles would be far more popular for the same reason.

   Response: The comment doesn't reflect an understanding of what is being proposed since busways are the back-bone of the Refined LPA. These busways are within existing transportation rights-of-way.

59. *And it must be remembered that a rail transit line or a bus system expansion carries with it a massive increases in operating costs. Highway, on the other hand, have relatively minor maintenance per passenger carried.*

   Response: That's because the operating and maintenance costs of the cars and trucks using the roads aren't included. If these costs are included the bus system is much more cost effective in terms of cost per passenger carried.

60. *It is difficult to believe the cost forecasts for BRT because they tell us that there will be a 49 percent increase in jobs in public transit (SDEIS S-9). Transit jobs forecast to increase from 1,181 to 1,760, or 49%.) yet there will only be a 24% increase in operating and maintenance costs. (SDEIS 6-5. The forecast is operating costs for the BRT plan to be $188 million in 2010 vs. $152 million today for No-Build, all expressed in 2010 dollars.) However, since employee costs are typically 70% of operating costs (1996 National Transit Database System Wide Information for Honolulu DTS.) how can this possibly be?*

   Response: The 2025 jobs are being compared with 2010 operating and maintenance costs, which is not correct.

61. *The City's calculation of the cost for each new ride demonstrates the poor value of the BRT plan. The calculation is $7.42 for each additional ride for the BRT over and above that of the No-Build Alternative. This amounts to $3,710 annually per new rider. (The City shows the additional cost for each new ride as $7.42. Allowing commuters 500 rides annually (250 trips x 2 daily) is $3,710 cost per new rider annually. Source: SDEIS Table 7.3-1B on page 7-12.)*

   Response: See response to comment #2.

62. *"Perhaps what is most surprising, and to some extent alarming, about the alternatives presented is that few real choices are offered." Dr. Cervero p. 3.7*

   "The TSM option appears "born to lose," as most TSM options are in alternatives analyses." Dr. Rutherford p. 7.2

   Evaluation of the Honolulu Rapid Transit Development Project's AA/DEIS. Hawaii Office of State Planning. February, 1990.

   Response: The information cited is over ten years old and pertains to a different project.

   On the same page as the Dr. Cerver's quote, it also states: "This criticism, I believe, is less a reflection on the work of the consultants and more an outcome of pressures exerted by various political and special interest groups. The range of alternatives presented are built on several prior studies which established this corridor as the most potentially cost-effective one for building a fixed guideway system. At the outset, the consultants acknowledge that the same corridor which evolved from the PEEP I and PEEP II studies was adopted in this latest round of analysis. Through a careful prescreening of alternative routings for different segments as a result of a series of public hearings in 1987-88, the final set of alternatives were pruned to those included in the latest reports. Ostensibly because of concerns of displacing established residences, encroaching on parkland, interfering with surface street traffic, and intruding on several sites of historical significance, a number of other routing alternatives were eliminated."

   In the paragraph above Dr. Rutherford's quote, first sentence it states: "Given the linear nature of travel demand, high densities, the constrained travel corridor, good weather, and high current ridership, Honolulu is an obvious candidate for a fixed guideway transit of some sort."

63. *The City has not proposed, or even examined, alternatives that have been proven to work elsewhere. Nor did they for the 1992 rail transit plan. (See Appendix III.) They merely keep proposing the conventional solutions to solve our traffic problems that have not worked anywhere else. This should be recognized and the public told the real and uncomfortable truths.*

Response: BRT has proven itself successful in cities around the World, including Curitiba, Brazil; Nagoya, Japan; Madrid, Spain; Brisbane, Australia; Wellington, New Zealand; Dublin, Ireland; Ottawa, Canada; Pittsburgh, PA; Washington, D.C.; Los Angeles, CA; New York City, NY; and Orlando, FL to name a few.

64. *Congestion caused by people commuting at normal daytime hours to major job centers such as downtown and Waikiki. These trips are one-time peak hour trips and TheBus is not the answer. What commuters need to get them out of their cars is door-to-door transportation. The most efficient way to do this with vanpools. The problem is that the vanpool is priced at $70 a month vs. the Express Bus at $25. This makes the bus the hands down winner for people on a tight budget. However, the price for TheBus does not reflect its cost whereas the vanpool does. (The vanpool covers 90% of its operating cost whereas the Express Bus only covers 15%.) If the Express Bus were to charge commuters its cost of $175 per rider per month, few would ride it. Obviously, if anything, we should be subsidizing vanpools instead of Express Buses.*

Response: Reducing congestion requires a multi-modal approach. Buses, BRT, vanpools, HOV lanes, parking management, etc. are all measures that are needed.

65. *Another fine example is that offered by Honolulu's tour bus operators whose vehicles are not that busy during commute hours. They have offered guaranteed seat Express bus service that require a subsidy far less than what it is currently costing the City. Either of these services can provide commuter service for hotel workers and others who tend to commute at set times. A study participated in by state workers in 1991 showed that 91% of participants were very interested in door-to-door guaranteed-seat service. (Flannelly, K.J., Flannelly, L., McLeod, M.S., Jr. Behnke, R. W. Direct Comparison of Commuters' Interests in Using Different Modes of Transportation. Transportation Research Record #1321. Transportation Research Board. 1991)*

Response: The referenced study indicates that the survey conducted was not participated in by state workers but by Mililani workers using a mail survey conducted in cooperation with the neighborhood board. Six hundred and sixty-six (666) surveys were analyzed. The 91% interest in door-to-door, guaranteed-seat service was based on a $1.00 one-way fare. The study also shows that if the one-way fare offered increases to $2.00, ..."consumer interest drops sharply with higher fares and quickly becomes negative." The negative interest relates to a $3.00 one-way fare.

66. *Congestion caused by people moving around the Urban Center throughout the day. TheBus is not the best way to attract people from their cars for journeys from say, Downtown to Waikiki; it is too slow. Honolulu's jitney buses of the 1930s with their smart uniformed drivers were then much faster and more popular than the streetcars judging from the evidence given during HRT's suit against them in 1940. At that time the public pleaded with the court for the jitney buses to stay. As a current example, the air-conditioned handsome jitney buses in Atlantic City provide service at 40-second intervals -- and they run 24 hours a day.*

Another option is the use of shared-ride taxis. These taxis are able to take many commuters at prices lower than exclusive ride taxis and since they accommodate more riders, relieve traffic congestion. They are widely used in Washington, DC and elsewhere but illegal in Honolulu.

Response: Independent small vehicle carriers are most likely to fall under the City and County's taxicab rules and regulations the Department of Customer Service administers, Chapter 12, Regulations of Common Carriers and Their Fees, Rivas Ordinances of Honolulu. As of 1998, there were 1,365 taxicabs licensed to do business in the City and County.

Upon initial reading, jitney services would not appear to be allowed under the City rules, except when there is a total stoppage in the public bus service (see Section 12-1.11 Special operations). This section appears to treat jitney services as an extreme exception, rather than an allowable practice under certain conditions. Taxicabs, however, are allowed to provide shared-ride service, as long as each passenger agrees to share the ride with the other passenger(s) (see Sec. 12-1.24 Shared-ride service; Sec. 12-1.4 Prohibited acts. (d) Additional Passengers). This section on shared ride service specifically allows for limousines and multi-passenger vans. Under the shared rider service rule, any taxicab could technically operate as a jitney by having signage indicating that it is a shared ride taxicab for a particular street or route.

The State Public Utilities Commission (PUC) regulates non-taxicab transportation service carriers—Hawaii Administrative Rules, Title 6, Chapter 62, Motor Carrier Rules and Classification of Property and Passenger Carriers. In general, the PUC-regulated carriers are companies with one or more fleets of vehicles ranging from large vans to shuttles to mini-buses to full-size buses.

The PUC issues two types of certificates for non-taxicab transportation service carriers: irregular route and regular route. The certificate of irregular route service is for service of a general nature, which may have fixed stops but not on a regular schedule. All of the major transportation and tour companies have certificates of irregular route service. The certificate of regular route service is for service over a fixed route with stops at fixed locations and on a time schedule, which could be daily or hourly. Examples of regular route service are E Noa Tours' Waikiki Trolley and the Ala Moana Shuttle. Companies under regular route certificates operate in such areas as Maui's Kapalua/Kaanapali/Wailea/Lahaina loop and between resort areas on the island of Hawaii. Regular route service is almost akin to a private bus service. Although, there is no public subsidy, some companies keep passenger fares low by seeking cost sharing form resort properties and attractions serviced by regular route service.

Specifically exempt from PUC rules are "county-regulated passenger carrying operations known as "jitney services"... "utilizing motor vehicles that have seating accommodations for six to 25 passengers, operate along specific routes during defined service hours, and levy a flat fare schedule" (See Hawaii Revised Statutes, Chapter 271-5(18), Exemptions, generally). The intent of this exemption seems to be one of avoiding doubly regulating jitney operations. However, as described earlier, the City and County of Honolulu does not currently regulate jitney services, except for providing an exception for service during a total bus stoppage. In fact, under the PUC's current rules structure, a regulated motor carriers could operate a service that would have many of the same features as a jitney service, i.e., fixed route, semi-regular schedule of smaller vehicles such as trolleys or shuttle vans or mini-buses.

(Source: Draft Product 2-5, Technical Paper on Privatization Options, June 1999)

67. *A growing annual bus subsidy that is now over $100 million annually (including capital costs). Our bus system is the most efficient government bus system in the U.S. We also have a wonderful post office. You can be proud of them as long as you do not compare either of them with their profitable counterparts such as Atlantic City jitney bus service and Federal Express. There are ways to reduce the heavy burden on taxpayers and vanpools, private bus use, shared-ride taxis*

and jitney buses are just some of them. Ten years ago, Britain's London Transport was losing 40 cents on every dollar they took in. Today, it is privatized and profitable with the same level of service it had before. Buenos Aires, Argentina, thirty years ago lost more money than TheBus. Today, a myriad companies run 18,000 buses, none more than 23 passenger, and they are profitable and no longer drain on the taxpayer.

Response: Comment noted. No response required.

68. *During rush hours all highways coming into town from the Leeward area are far too congested. COST first proposed ten years ago that we should examine the feasibility of a new busway along the same alignment as the former rail transit proposed line from Waiawa to about the old OR&L rail station downtown. It would be two lanes with a safety lane, one-way into town in the morning and one-way out in the afternoon with three or four places for ingress and egress to the main freeways. It could be either state-funded for HOV van pools, high-occupancy autos and buses or it could be privately funded as a tollway. Motorists pay to be on it but it would take a great deal of traffic off existing freeways. Nothing has been done about this proposal.*

   A busway would expand leeward mobility far more than BRT, cost less and quality for a greater percentage of federal funds.

   Response: Use of the already in place H-1 freeway as a busway/HOV facility by extending the existing A.M. zipper lane and adding a P.M. zipper lane along with ramp improvements that give priority to buses is a much more cost effective solution to serving the Leeward area than building a whole new busway (particularly since much of the right-of way for an independent busway no longer exists).

69. *The Federal Transit Administration's (FTA) name is shown above the City's on the SDEIS giving the impression that they have examined and/or written the plan with the same kind of input as the City planners and approved it. Unless the FTA has indeed carefully examined the plan and signed off on its forecasts then it should either remove its name from the Final EIS or make it clear to the public that it does not stand behind these forecasts but is merely accepting "local decisions."*

   Response: The MIS/DEIS, SDEIS, and FEIS are Federal documents and the FTA (as the lead Federal agency) is responsible for the contents. The City is a cooperating agency.

70. *The problem is that the City never spends time analyzing our traffic and transportation problems. Instead they get "visions" of the wishful thinking, ribbon-cutting variety. Then the solution drives everything else. To paraphrase the old saying, they put the train before the passenger.*

   Response: It should be noted that the City, State, and OMPO are continually analyzing and implementing solutions to Honolulu's traffic and transportation problems. This is evidenced by the Transportation for Oahu Plan, TOP 2025, which includes congestion relief projects, transit and alternative modes projects, operations and safety projects, second access projects, projects that support community planning goals, and projects that provide local circulation and/or community access.

71. *And, as with all governments, they tend to simplistic views of complicated problems that will allow them a one-size fits-all solution. Give them responsibility for clothing and you get the Mao jacket and the old Soviet baggy suit. Give them transportation and it's the one-size bus.*

Response: The Refined LPA includes many components including conversion of the bus system to a hub-and-spoke network; maximizing use of the existing H-1 Freeway through zipper lane and ramp improvements; and an In-Town BRT which significantly increases the people carrying capacity of the roadway system in the urban core. These are all innovative, cost-effective approaches to meeting future needs without the need for major roadway widening and new construction.

72. *What is needed is a review of what has worked elsewhere in improving mobility, ameliorating traffic congestion and reducing costs.*
   A) New York City shows us that having the City take a hands-off approach to parking and letting the market drive it significantly reduces automobiles on the road.
   B) Honolulu's own experience with vanpools shows us that using vouchers in conjunction with vanpools would allow us to simultaneously increase ridership and lower costs.
   C) Buenos Aires and London's experiences with privatization show how we could provide better service at lower cost.
   D) Door-to-door buses and vans using busways such as Washington DC's Shirley Highway, and others elsewhere, show us that busways can carry far more riders than rail transit lines.
   E) Atlantic City's Jitney buses today and Honolulu's experiences during the 1930s show us how to run a profitable urban service.
   F) Washington DC's shared-ride taxis show us how to increase highway capacity during rush hour.

   Response:
   A) New York City parking costs can be as much as $600 per month. New York City Transit carries six million trips per day, about two billion trips annually. New York has a fine, well-established, public subway and bus system, which includes BRT. (http://www.mta.nyc.ny.us/nyct/facts/ffintro/htm)

   B) On a per ride basis, vanpool costs become comparable to the operating and maintenance costs of a bus when there are at least 5 passengers per van.

   C) Bus privatization in London was not initiated to relieve traffic problems. Charlie Lloyd of the University of North London points out that while privatization has been relatively cost effective in London, that stands in sharp contrast to privatization ventures elsewhere in Britain. (http://www.citebc.ca/Mar96_London.html) These bus systems also still report to Transport for London, which oversees bus companies and sets fares. Transport for London reports to London's mayor.

   Our research for Buenos Aires mentions public buses and subway system, not privatization.

   D) We concur that busways can carry as many people as rail transit lines and thus the BRT Alternative. "Since September, 1969, high-speed buses have been traveling on the Shirley's exclusive bus lanes, providing for many commuters an alternative to the daily time-consuming, rush-hour drive in bumper-to-bumper traffic. An increasing number of these former motorists are leaving their cars at home or parked in the suburbs and taking the bus, because the bus gets them to and from work much faster." (http://www.roadstothefuture.com/Shirley_Busway.html)

   E) Jitneys were popular in the first half of the 20th century in lots of American cities, like Honolulu. The reason they worked well and are only seen in a few cities today may be attributable to the

population increases and geographic expansion major urban areas have experianced. Honolulu's population has quadrupled since 1930, when it was 202,887. (http://www.hawaii.gov/dbedt/2000/010197.html)

F) Washington D.C. has an efficient and effective public transit system which includes an extensive rail system plus local and express buses. In 2000, 37 percent of Washington residents took public transportation to work, 12 percant walked, and four percant worked from home. Thirty-eight percent of the city's residents do not own a car. Average daily ridership on the Washington Metro was 588,500 in January 2001and the average daily ridership on Metrobus was 473,900. While shared taxis do help to alleviate some traffic during rush hour, the metro area's highways and freeways would go from bad to worse if shared taxis were the only transportation alternative. Taxi cab rides would average more than $20 one way for most suburban Oahu residents' homes to downtown Honolulu, which would be $40 round trip. Even if shared with 3 other people that's $10 per day or $225 per month for most commuters.

73. *(A)"A rapid transit system will not be likely to improve [traffic congestion], and such improvements should not be a major selling point for the system." Rutherford 1.5*
B) "...it is debatable whether any noticeable impact will occur on highway facilities ... " Rutherford 6.5
C) "...estimates of fuel, pollution, and time savings on highway facilities are generally paper exercises that seldom occur in the real world." Rutherford 3.5
D) "The Final Environmental Impact Statement should more clearly state that the primary benefit of rapid transit will be to substantially increase mobility for transit-dependent commuters." UH 3.7
E) "...the primary benefit of rapid transit is not the reduction of automobile congestion. Rapid transit's primary benefit should be to substantially increase mobility for transit-dependent commuters." UH 24.3
F) "...it appears that relatively few public benefits of any regional significance will result from any of the fixed guideway alternatives." Cervero 14.3
G) "...it would be highly misleading to measure the success or failure of the proposed transit system solely on the basis of its ability to reduce auto congestion. To the extent that it increases the travel speed of current bus riders, who are slowed down by roadway congestion, this would be a benefit even if congestion levels on roadways did not fall at all. At least bus riders, who are not at all responsible for creating the congestion problem on the roads, would be less likely to suffer from it." Pucher 12.5
H) "The only really effective way to reduce auto congestion is by raising the price of auto use ... and by giving traffic priority to buses and high occupancy vehicles." Pucher 12.4
I) "In order to increase transit mode splits to the 20-30% range, a level that would begin to yield quite noticeable and important social and environmental benefits, some combination of the following initiatives would likely need to be introduced: increased fuel taxes and registration fee; elimination of free or heavily subsidized parking; introduction of an auto-restricted zone in the core area (such as practiced in Singapore); creation of HOV-lanes and contra-flow lanes that give buses operating on surface streets substantial speed advantages ..." Cervero 11.6

Response: The comments cited are from early 1990 publications regarding the Honolulu Rapid Transit Project. This information is over ten years old and was prepared regarding a rail project. Over the past ten years the travel demand models and methodologies and other analytic tools (energy, air quality, etc.) have evolved and have been refined. Also, only part of the information is presented in the quotes.

(A) The conclusion actually states: "A rapid transit system will not likely to improve level of service on streets and highways, and such improvements should not be a major selling point for the system."

(B) The sentence actually states: "As mentioned in Question 1, it is debatable whether any noticeable impact will occur on highway facilities because of the large latent demand for auto travel in highly congested areas. I do no think the issue is important; instead, this system will increase non-auto mobility substantially in a low polluting, energy efficient, and cost-effective manner."

(C) The paragraph actually reads: "The basic model structure discussed in Section 3.7 of the Task 5 report is described as a "nested logit model," which first splits travelers between auto and transit and then estimates access modes to transit separately. This model structure is appropriate as long as people's choice patterns follow model assumptions. If people must make a substantial tradeoff between being an auto passenger and a transit rider, this model structure may overestimate the number of actual automobiles taken off the road. In other words, the question is, what is the impact of auto occupancy when transit improves substantially? Measurements of improvements in auto travel due to transit investments have proven elusive as the latent demand for auto use has filled slots vacated by transit riders. For this reason, estimates of fuel, pollution, and time savings on highway facilities are generally paper exercises that seldom occur in the real world."

(D) See response to comment #20, above.

(E) The paragraph actually reads: "In this regard, we agree with Rutherford who argued that the primary benefit of rapid transit is not the reduction of automobile congestion. Rapid transit's primary benefit should be to substantially increase mobility for transit–dependent commuters. If you accept that premise, then the most cost-effective alternative may not be the most beneficial to the transit-dependent population."

(F) The paragraph actually states: "Given that all of the alternatives would only increase regional transit mode splits only slightly above the No-Build option, it appears that relatively few public benefits of any regional significance will result from any of the fixed guideway alternatives. This suggests that only those alternatives with marginal costs per additional rider that begin to match the fares that users will pay should seriously be considered. Only alternatives 10 and 11 seem viable on these grounds."

(G) The beginning of the paragraph quoted states: "The percentage reduction in total auto travel probably will not be significant—under 10%, even in the short-run. In the long-run, the initial reduction in congestion and improvement in travel time will almost certainly disappear, as new travel demand is simulated by the more attractive travel conditions—i.e. less congestion—on roadways. The only really effective way to reduce auto congestion is by raising the price of auto use (for example, by higher gasoline taxes, higher motor vehicle registration fees, and higher parking fees and taxes) and by giving traffic priority to buses and high occupancy vehicles. Building a new transit system would produce travel benefits even if it does not reduce congestion levels on roadways, because more trips would obviously be served. Thus, ..."

(H) See (G) above.

(I) The end of the sentence quoted actually states: "...and the introduction of various land use incentives (e.g. density bonuses; transferable development rights; impact fee credits) that will cluster future development around transit stations and encourage a development pattern that closely conforms with fixed guideway transit."

74. *A) I question the factoring of the transit trip table on the basis of population and employment growth, mainly because over the last decade Honolulu has shown rapid growth in everything but transit ridership ... This same pattern has been observed in many other U.S. cities." Rutherford 2.5*
B) "...the rates of growth for transit have not been in lock step with population and employment growth." UH 31.9
C) The City's ... model assumes that growth in transit ridership can be related as a linear function to growth in population and employment. This is a simple assumption that the City made for convenience. Although we have reasons to doubt the validity of this assumption, we have no better substitute." UH 36.7
D) "The City's consultants used a "pivot-point" methodology to project ridership for the different alternatives in the year 2005. This method, which was endorsed by UMTA, has only been used elsewhere for rail extension projects, rather than for a complete system." UH 2.2
E) The major weakness that reoccurs at several phases of the ridership forecasting methodology is the absence of validation against local data." Ben-Akiva 9.5.
F) "...no evidence is presented in the report on the validity of the ... tables." Ben-Akiva 2.8G) "...the level of accuracy of these boarding counts is not specified." Ben-Akiva 2.8
H) "The report does not present data to support these assumptions." Ben-Akiva 3.4
I) "My conclusion is that the selected values for the parameters of the mode choice model have not been sufficiently justified." Ben-Akiva 7.7
J) "I question the validity of the forecasting procedure ..." Ben-Akiva 7.9
K) "I am not convinced that any of the models is "transfereble" to other situations and I would recommend not to use them without further testing." Ben-Akiva 8.7
L) "Any forecasting exercise of this nature would be associated with significant uncertainties." Ben-Akiva 9.8
M) "...it is possible that parallel bus routes that now provide better service to some will experience a reduction in service level ... it should be pointed out that several new guideway projects in the U.S. attempted to force an unnatural number of trips to the guideway, even for short segments of longer bus trips. Some systems actually had lower total transit ridership after a fixed guideway system was built." Rutherford 6.6
N) "Since the entire justification for the project rests on significant rates of electing public transportation over the private automobile, the failure to discover what would influence this choice may be a serious flaw." Canan 1.8

Response: The comments cited are from early 1990 publications regarding the Honolulu Rapid Transit Project. This information is over ten years old and was prepared regarding a rail project. Over the past ten years the travel demand models and methodologies and other analytic tools (energy, air quality, etc.) have evolved and have been refined. Also, only part of the information is presented in the quotes.

A) This quote is from Review of Ridership for AA/DEIS Honolulu Rapid Transit Development Project by G. Scott Rutherford, Ph.D., P.E., Associate Professor of Civil Engineering, University of Washington and dated April 17, 1990. The quote actually reads, *"I question the factoring of the transit trip table on the basis of population and employment growth, mainly because over the last decade Honolulu has shown rapid growth in everything but transit ridership. Faced with this trend, it is inappropriate to increase the trip table merely on the basis of population and employment growth. From 1980 to 1987 population increased about 8 percent, motor vehicles 29 percent, and transit riders only 3 percent. This same pattern has been observed in many other U.S. cities." Rutherford 2.5*

The transit trip table was developed using the current travel demand forecasting process used by the Oahu Metropolitan Planning Organization (OMPO). The transit trip table is not derived through a factoring procedure but through a fully calibrated nested LOGIT mode choice model calibrated using 1995 population and employment data. The year 2025 population and employment data used are the current OMPO year 2025 projections.

B) The paragraph states, *"One can see from Figures 6 and 7 that the rates of growth for transit ridership have not been in lock step with population and employment growth." UH 31.9*

Figures 6 and 7 referred to in the quote are graphs that plot annual bus passengers versus population on Oahu and annual bus passengers versus annual employment on Oahu, respectively. The general theme of the discussion surrounding these graphs is that there is not a linear correlation between bus passengers and either population or employment. As discussed in the response to comment #74A), future transit ridership is not determined through a factoring process but through OMPO's calibrated LOGIT mode choice model.

C) This quote reads, *"The City's Fratar model assumes that growth in transit ridership can be related as a linear function to growth in population and employment. This is a simple assumption that the City made for convenience. Although we have reasons to doubt the validity of this assumption, we have no better substitute." UH 36.7*

A Fratar model was not used to forecast future transit ridership. OMPO's calibrated LOGIT mode choice model was used.

D) This excerpt is quoted in its entirety. *"The City's consultants used a "pivot-point" methodology to project ridership for the different alternatives in the year 2005. This method, which was endorsed by UMTA, has only been used elsewhere for rail extension projects, rather than for a complete system." UH 2.2*

A "pivot-point" method was not used to forecast the transit ridership for the alternatives. OMPO's calibrated LOGIT mode choice model was used.

E) and L) These excerpts are from Evaluation of Ridership Forecasting for the: Honolulu Rapid Transit Development Project – Alternative Analysis and Draft Environmental Impact Statement, written by Dr. Moshe Ben-Akiva, Professor, MIT, and dated May 4, 1990. Ben-Akiva states, *"The major weakness that reoccurs at several phases of the ridership forecasting methodology is the absence of validation against local data." Ben-Akiva 9.5.* He concludes with, *"Any forecasting exercise of this nature would be associated with significant uncertainties. My suggestions have been directed at some areas where uncertainties may be reduced and at others where their magnitude should be assessed" Ben-Akiva 9.8*

OMPO's travel demand forecasting model was calibrated using 1995 data. Included in the model development was a detailed household interview survey that involved members of the household keeping a daily trip diary. The model was then used for the Oahu Regional Transportation Plan

(ORTP) Update approved by the OMPO Policy Committee in April 2001. The base year for the ORTP was the year 2000, and this study helped to validate the model to local conditions. Therefore, the weakness asserted by Ben-Akiva is no longer an issue.

F), G) and H) These quotes are contained in a section of the report that discusses base transit data. It actually reads, *"The base year ridership data are obtained from the 1986 bus on-board survey. The report identifies several deficiencies in this survey that required: (i) some additional cleaning and recoding of the original survey records; (ii) a recalculation of expansion weights; and (iii) the use of an origin/destination rather than production/attraction format. It appears that a great deal of effort was invested in an attempt to overcome the limitations of this survey. However,no evidence is presented in the report on the validity of the resulting O/D tables. It is assumed that the survey expansion is based on the total boardings by time of day, bus route, direction and route segment. But the level of accuracy of these boarding counts is not specified." Ben-Akiva 2.8 . "The report does not present data to support these assumptions." Ben-Akiva 3.4*

The OMPO travel demand forecasting model used by the Primary Corridor Transportation Project to forecast travel demand used the more recent 1991 On-Board Bus Survey, TheBus Comprehensive Operations Analysis completed in 1993, and update transit data supplied by Oahu Transit Service (OTS), the operator of the municipal transit system, to calibrate the 1995 base year model. The model was validated as part of the ORTP Update study in 2001.

I) This quote pertains to Ben-Akive's discussion of the parameters used in a later mode choice model used in the Honolulu Rapid Transit Project. The discussion focuses on the validity of using coefficients in the incremental LOGIT model that were developed for models used in other areas of the country. The quote is, *"My conclusion is that the selected values for the parameters of the mode choice model have not been sufficiently justified." Ben-Akiva 7.7*

As stated previously, the OMPO travel forecasting model was developed using detailed travel surveys and transportation information collected on Oahu. The model modules, including the incremental LOGIT model, were calibrated for local conditions.

J) and K) These quotes pertain to Ben-Akiva's evaluation of generated non-home based transit trips. These trips were modeled using model forms borrowed from Washington, D.C. The actual quotes are, *"The concept of generated Non-Home-Based (NHB) transit trips by fixed guideway facilities is reasonable. The discussion of the similarities between Washington, D.C. and Honolulu is also reasonable. However, I question the validity of the forecasting procedure that was employed to capture this phenomenon." Ben-Akiva 7.9* He concludes by saying, *"I am not convinced that any of the models is 'transferable" to other situations and I would recommend not to use them without further testing." Ben-Akiva 8.7*

The OMPO travel demand forecasting model was developed to help model non-home-based trips as well as home-based trips. As a result, the OMPO model utilizes 11 trip purposes, 4 of them relate to non-home-based trips. Data to calibrate the model for these trip purposes were collected using a survey with detailed household trip diaries and, therefore, reflect local travel behavior.

M) This is another quote from Review of Ridership for AA/DEIS Honolulu Rapid Transit Development Project by G. Scott Rutherford, Ph.D., P.E., Associate Professor of Civil Engineering, University of Washington and dated April 17, 1990. The actual quotes is, *"It is possible that parallel bus routes that now provide better service to some will experience a reduction in service level. While this is a policy and resource issue to the transit agency, it should*

be pointed out that several new guideway projects in the U.S. attempted to force an unnatural number of trips to the guideway, even for short segments of longer bus trips. Some systems actually had lower total transit ridership after a fixed guideway system was built." Rutherford 6.6

The Refined LPA is not a fixed guideway system. In fact, the more heavily used parallel bus routes are routed along the BRT transit lanes and are incorporated into the BRT system. In this way more riders will be able to take advantage of the faster speeds and improved reliability that the transit priority lanes will provide.

N) This excerpt is from a report entitled, Honolulu Rapid Transit Development Project, Alternatives AnaylsisfDraft Environmental Impact Statement, Social and Economic Impacts Review, by Penelope Canan, Ph.D., consultant, dated April 1990. In a critique of the Public Involvement Program for the Honolulu Rapid Transit Project she states, *"Since the entire justification for the project rests on significant rates of electing public transportation over the private automobile, the failure to discover what would influence this choice may be a serious flaw." Canan 1.8*

The choice of transit or auto mode is projected for all alternatives by the OMPO travel demand forecasting model. The nested LOGIT mode choice module was calibrated to local conditions based on detailed travel data collected as part of the model development process. The selection of travel mode, therefore, reflects actual propensities by the local population to choose one mode over the other.

75. A)*Perhaps what is most surprising, and to some extent alarming, about the alternatives presented is that few real choices are offered." Cervero 3.7*
B) "...we think that the TSM alternative has not been adequately defined in the AA/DEIS." UH 17.4
C) "The range of alternatives considered in the AA/DEIS was disappointingly narrow and might have included other options." Rutherford 1.6
D) "I believe that it is vitally important to pay as close attention to the proper design of the TSM alternative as it is to design of the rail alternatives before an informed decision can be made about whether and how to finance new rail transit." Shoup 12.9
E) "The proper specification of this [TSM] alternative is crucial, because it affects all the subsequent calculations of how many more riders the rail system will attract, and how much extra revenue will have to be raised to finance the rail system .. it does not involve any other of the now common transportation demand management techniques that are in integral component of transportation system management. I would argue that the TSM alternative is inadequately specified, and thus that the contribution that TSM can make toward improving transportation is underestimated. If this is true, the improvements attributable to the rail alternatives are overestimated." Shoup 12.3

Response: To use quotes from a 1990 review of the then Rapid Transit Project, when the authors haven't even seen the current set of alternatives is totally improper.

76. *COST COMMENT: Busways are used by the consultant here refers to grade-seperated or barrier-separated lanes reserved for buses and high occupancy vans and cars. They are also sometimes referred to as transitways.*
A) "In particular, what is lacking is a serious investigation of several viable dedicated busway options." Cervero 3.4
B) "Where the current set of alternatives really fall short is in ignoring various busway configurations as a fundamental option to rail transit." Cervero 5.4

C) "Quite aside from the neglect of low cost TSM alternatives, there is no exploration of the possibility of investing more in HOV lanes for buses and carpools, as an intermediate level of investment between the No-Build alternative and the rail alternatives." Shoup 12.8
D) "The additional riders that might be drawing to busways (by virtue of the superior quality of service offered buy buses feeding directly into neighborhoods) might more than make up any higher costs (if indeed cost estimates are accurate). If presented in terms of a more traditional benefit-cost framework, it is likely that busways would compare far more favorably with fixed guideway rail options." Cervero 4.9
E) "The real advantage of busways ... is that they reduce ... transferring, the Achilles heel of mass transit in many modern, low-density metropolises like Honolulu." Cervero 4.3
F) "...a TSM II could be considered that ... might include contraflow lanes, busways, reversible bus streets ..." Rutherford 7.2
G) "In summary, I would recommend that an additional study be commissioned that seriously examined a range of busway options as legitimate contenders to the fixed guideway rail options." Cervero 5.3

Response: Comment noted. Again, the author is quoting information written about the Honolulu Rapid Transit Development Project over ten years ago. Because only one sentence, or a portion of a sentence are quoted, the reader is mislead into the quoted authors' meaning. Also, since the quoted information was published, high occupancy vehicle lanes have been implemented on Oahu and more are planned. The BRT project is a busway project.

A) In the next two sentences after the one quoted, Dr. Cervero states: "This criticism, I believe, is less a reflection on the work of the consultants and more an outcome of pressures exerted by various political and special interest groups. The range of alternatives presented are built on several prior studies which established this corridor as the most potentially cost-effective one for building a fixed guideway system."

B) The last sentence of the paragraph is quoted. The prior information states: "In summary, I would recommend that an additional study be commissioned that seriously examined a range of busway options as legitimate contenders to the fixed guideway rail options. It is particularly important that intensified and significantly upgrade bus transit options be considered for Oahu in light of the fact that the bus system already in place has proven itself to be one of the most heavily utilized and cost-productive operations in the country. Given the solid base of bus services already in place, it would seem that various busway alternatives could be linchpins to creating a first-rate regional transit service. In terms of alignments and areas served, the alternatives presented seem well grounded. While extensions (e.g. to Ewa or Hawaii Kai) could be considered, the basis for limiting the analysis to the chosen corridor seems sound and well supported..."

C) The sentence following the one quoted states: "I realize that no analysis of alternatives can consider every option that anyone recommends, and it may be that the AA/DEIS considered a TSM alternative that was prespecified."

D) The last two sentences of the paragraph are quoted. The first of the paragraph states: "It should be mentioned that several smaller reports were prepared which addressed busway options: *Report on Bus on Busways*, prepared by the Department of Transportation Services of the City and County of Honolulu; and *Expended Bus/Fixed Guidway Mass Transit Alternatives*, prepared by the Economic Development and Transportation Committee of the City and County of Honolulu. While on the same topic, it is interesting that the two studies reach different

conclusions – the former generally dismisses busways as a legitimate alternative while the latter strongly endorses them. The former seems almost like an alternative while the latter strongly endorses them. The former seems almost like an afterthought to the larger battery of studies done on rail transit while the latter comes across as a strong reaction to ignoring busways within the Alternatives Analysis. While steps in the right direction, both studies, I believe, fail to examine busways within the necessary scope or depth they deserve. The *Report on Bus on Busways* uses the results from the PEEPI and PEEP II analyses to conclude that busways would be costlier than fixed guideway over the long run, primarily in terms of higher operations and maintenance costs. This finding is a bit surprising in that it counters a considerable body of conventional wisdom that says, *ceteris paribus*, busways are cheaper than rail transit on a per kilometer basis (Meyer, et al., 1964; Peckrell, 1989; Kain 1990). Moreover, the analysis ignores the demand side of the equation."

E) Again, the author is only presenting part of the information quoted. The paragraph reads: "Busway options could range from a system of inter-connected HOV lanes and other preferential treatments (e.g. Houston) to newly constructed, exclusive busways (e.g., Ottawa). Even hybrids might be considered, like dual-mode/duel-propulsion bus-rail systems (e.g., Essen, West Germany; Adelaide, Australia). Options could also vary with respect to geographic coverage, frequency and quality of service, and routing patterns. In contrast to a fixed guideway rail system, busways enable transit vehicles to perform both feeder (collection-distribution) and line-haul (trunkline) functions. The same vehicles connecting major terminuses and activity centers can also filter into neighborhoods to provide more convenient access. Park-and-ride facilities can be scaled back accordingly. Thus, the real advantage of busways, at least from a ridership standpoint, is that they reduce the incidence of transferring, the Achilles heal of mass transit in many modern, low-density metropolises like Honolulu. Clearly, several gradations of busway options would offer a striking contrast to alternatives 2-11, all of which rely heavily on motorists park-and-riding as the primary form of collecting and distributing passengers. A well conceived set of busway options would provide decision-makers with a bonafide set of alternatives, many of which would have noticeable different costs and benefits, in which to debate and eventually work toward a consensus."

F) Dr. Rutherford's paragraph that is partially quoted states: "The TSM option appears to be "born to lose," as most TSM options are in alternatives analyses. Since the TSM option, by definition, needs to be lower cost, a TSM II could be considered that showed what $1 billion would buy for a different type of service. Elements might include:

- bus tunnels and bridges,
- contraflow lanes,
- busways,
- reversible bus streets,
- bus stations integrated with land use,
- free service,
- employer bus passes,
- visitor passes,
- wider application of park-and-ride with express buses, and
- services at park-and-ride lots such as daycare, retail stores, and automotive facilities and services."

G) The sentence quoted is the first of the paragraph which states. "In summary, I would recommend that an additional study be commissioned that seriously examined a range of busway options as legitimate contenders to the fixed guideway rail options. It is particularly important that

intensified and significantly upgrade bus transit options be considered for Oahu in light of the fact that the bus system already in place has proven itself to be one of the most heavily utilized and cost-productive operations in the country. Given the solid base of bus services already in place, it would seem that various busway alternatives could be the linchpins to creating a first-rate regional transit service. In terms of alignments and areas served, the alternatives presented seem well grounded. While extensions (e.g., to Ewa or Hawaii Kai) could be considered, the basis for limiting the analysis to the chose corridor seems sound and well supported. Where the current set of alternatives really fall short is in ignoring various busway configurations as a fundamental option to rail transit."

77. Buses and Vanpools.
A) "... I do not believe a sufficient number of significant high-quality mass transit alternatives have been considered for Oahu." Cervero 3.3
B) COST COMMENT: Mass transit is used here with its normal meaning of vehicles moving people en masse such as in trains, buses, vans or taxis. By brilliant PR, the city has managed to co-opt it to solely mean rail transit.
C) "It is particularly important that intensified and significantly upgraded bus transit options be considered for Oahu in light of the fact that the bus system already in place has proven to be one of the most heavily utilized and cost-productive operations in the country." Cervero 5.3
D) Other TSM strategies, such as those involving regional vanpool services, timed-transfer bus facilities, and auto-restraint measures, are ignored." Cervero 3.9

Response: It is not clear why these quotes were chosen since they support features that are embodied in the Refined LPA, namely an "Intensified and significantly upgraded bus transit option", with a "timed transfer" hub-and-spoke network.

78. Political Considerations.
A) "This criticism [of the City's TSM alternative], I believe, is less a reflection on the work of the consultants and more an outcome of pressures exerted by various political and special interest groups." Cervero 3.4
B) COST COMMENT: This may be acknowledging that Parsons, Brinckerhoff, the City's consultant for the Alternatives Analysis is also one of the nation's primary authorities on busways. They are the authors of High Occupancy Vehicle Facilities. December 1990.
C) "The TSM option appears "born to lose," as most TSM options are in alternatives analyses." Rutherford 7.2
D) " As presented, the alternatives give the impression that a fixed guideway rail system, be it light or heavy rail, was pre-established at the outset to be the preferred high-capacity transit technology for Oahu:" Cervero 3.8

Response: There was no pre-determined outcome, nor was there political pressure exerted on the consultants. The selection of the Locally Preferred Alternative was based on extensive quantitative analyses and public input. These analyses are documented in the FEIS.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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JEREMY HARRIS
MAYOR

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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00628

November 13, 2002

Mr. Tom Smyth
P. O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Smyth:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I won't take personal offense to the fact that you overlooked the dozen or so other elected officials that are here today. Mr. Bren has already spoken. But I'm speaking now, of course, of those neighborhood board members who are equally elected and who serve without compensation, and who I think deserve some recognition for the fact that they're representing their communities in meetings like this.*

   Response: We apologize and did not intend to offend the elected neighborhood board members that took the time to attend the public hearing.

2. *I'm a member of the Downtown Neighborhood Board, who's been an Oahu resident for nearly 30 years, downtown resident in Kakaako and Downtown area for about 20 years. The Downtown Neighborhood Board took a position early on, when this project was first presented, to support it generally, and we are the most affected by it, because all the routes, all of the routes, go through Downtown. They bring people in and take them out. We're affected by the lack of a system like this, by the traffic congestion that occurs in Downtown.*

   Response: This is a background comment that does not require a response.

3. *We had three specific concerns at the time the project was presented: A) The so-called Richards Makai portion of the Kakaako Mauka routing, which has been corrected; B) the two-lane Halekauwila routing from Richards to Punchbowl, which has not been; and finally C) the makai curbside routing along Ala Moana Park, replacing parking spaces that are very much needed on the weekends for people using the mauka portion of the park.*

   Response: This is a factual statement not requiring a response.

4. *As to this being a stealth project, I disagree totally. I can't think of a project that's had more public meetings, more public input, more public participation. I understand that more people would have been here today. The opponents were going to bus people in, but there was already to much traffic Downtown.*

Response: We appreciate you recognizing the community involvement efforts that have been associated with the project.

5. *Finally, as the only certified public – or certified economic developer in the state of Hawaii, I would say categorically that businesses do better as people are more mobile. Businesses will prosper in the area served by the system. They won't suffer. I think that's a given, and that's an argument that needs to be laid aside. So we think this helps local business.*

   Response: Comment noted. No response required.

6. *It certainly helps local residents. It certainly helps those of us who live Downtown to go out of town. We speak only of traffic coming in the morning and going home at night. But, in fact, with the Kapolei development, it's going to go much more in the opposite direction. A BRT system offers that flexibility which highways don't.*

   Response: Thank you for supporting the project and sharing your views regarding the benefits of BRT.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

McMillan, Cindy

From: Stancliff1@aol.com
Sent: Saturday, October 21, 2000 5:25 AM
To: cmcmillan@co.honolulu.hi.us
Subject: Aloha! Here is a comment on the BRT proposal. Mahalo.

Aloha, Cindy,

Thank you for our telephone conversation this morning. My day got busy, and
I did not have a chance to e-mail you this right away.

I have some comments on the proposed Bus Rapid Transit concept, which I would
like to ask you to forward to Director Soon and to any others you feel should
receive it.

Thanks a lot,
Richard (see below)

To Whom it May Concern:

I have reviewed an abstract of the proposed Bus Rapid Transit system
proposal, and would like to convey these thoughts:

Being originally from the Bay Area of CA, I have the following observations
about BART: it never took away from the roadway system. Either it went

above or below ground, or when it was at grade, it was placed in areas where
there was room to add it to the median without removing traffic lanes.
Further, it allowed for huge parking lots at each major outlying station, so
"parking and BARTing" is a real possibility.

The BRT System appears to take away from several major Diamond Head-Ewa
roadways, such as South King, Kapiolani, and Ala Moana. Since we still
depend very heavily on the auto, and I have sincere doubts that the BRS will
remove sufficient auto traffic to compensate for the traffic lanes removed, I
am afraid that BRS will contribute to the congestion problem. The concept of
making things so bad that you force people out of automobiles is a very
counterproductive method (in these days of productivity gains, one has to
couch this thought using the term "antiproductivity". Do we want to impose
another economic competitiveness handicap upon Honolulu?

Honolulu is long and thin, and east-west traffic has always been the main
problem. Removing more lanes in this direction simply contributes to the
ongoing arteriosclerosis we have--the body of Honolulu is trying to race

faster, but the blood supply is being reduced by continued narrowing of the
arteries.

I have not been able to study BRT very well, but one thing that could

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ameliorate this difficulty somewhat is if there were small, frequent circulator vans (cheap, say for a quarter) that folks could take to quickly
get around the downtown area. Then more people could feel that they could
leave their car at home and not be parayzed in town.

Another measure needs coordination with the State DOT (and cooperation therefrom) in connection with SR 125, which is intended to look at means of
enhancing the capacity of the central H-1 corridor (in conjunction with additional HOV--diamond--lanes). Tbis would allow larger numbers of commuters to reach Honolulu in fewer vehicles, with less horrendous traffic
jams. There are reasonable ways to add a "shoulder lane" to the central H-1
corridor for use during rush hour, but DOT does not seem to be acting on SR
125. I understand that projects such as H-1 capacity enhancement must make
it into a document for submission to the Federal government by December this
year, or they will be out of consideration for another 5 years.

Thank you for considering these comments.

Sincerely,
Richard C. Stancliff

Comments on BRT for Council Transportation Committee

Thank you for holding and inviting me to the Tuesday Transportation Committee hearing on the proposed BRT system. Unfortunately, I will be off-island and unable to attend.

Being originally from the Bay Area of CA, I have the following observations about BART, the Bay Area Rapid Transit: it never took away from the roadway system. Either it went above or below ground, or when it was at grade, it was placed in areas where there was room to add it to the median without removing traffic lanes. Further, it allowed for huge parking lots at each major outlying station, so "parking and BARTing" is a real possibility.

The BRT System appears to take away from several major Diamond Head-Ewa roadways, such as South King, Kapiolani, and Ala Moana. Since we still depend very heavily on the auto, and I have sincere doubts that the BRS will remove sufficient auto traffic to compensate for the traffic lanes removed, I am afraid that BRS will contribute to the congestion problem. The concept of making things so bad that you force people out of automobiles is a very counterproductive method (in these days of productivity gains, one has to couch this thought using the term "antiproductivity" Do we want to impose another economic competitiveness handicap upon Honolulu?

Honolulu is long and thin, and east-west traffic has always been the main problem. Removing more lanes in this direction simply contributes to the ongoing arteriosclerosis we have--the body of Honolulu is trying to race faster, but the blood supply is being reduced by continued narrowing of the arteries.

I have not been able to study BRT very well, but one thing that could ameliorate this difficulty somewhat is if there were small, frequent circulator vans (cheap, say for a quarter) that folks could take to quickly get around the downtown area. Then people could feel that they could leave their car at home and not be paralyzed in town.

Another measure needs coordination with the State DOT (and cooperation therefrom) in connection with SR 125, which is intended to look at means of enhancing the capacity of the central H-1 corridor (in conjunction with additional HOV--diamond--lanes). This would allow larger numbers of commuters to reach Honolulu in fewer vehicles, with less horrendous traffic jams. There are reasonable ways to add a "shoulder lane" to the central H-1 corridor for use during rush hour, but DOT does not seem to be acting on SR 125. I understand that projects such as H-1 capacity enhancement must make it into a document for submission to the Federal government by December this year, or they will be out of consideration for another 5 years.

Thank you for considering these comments.

Sincerely,
Richard C. Stancliff, 1107 Piikoi St, #16, Honolulu, HI 96814; (808)782-4322

Richard C Stancliff

AR00016035

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00629

November 13, 2002

Mr. Richard C. Stancliff
1107 Pikoi Street, #16
Honolulu, Hawaii 96814

Dear Mr. Stancliff:

Subject: Primary Corridor Transportation Project

This is in response to your October 21, 2000 e-mail and November 13, 2000 fax regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Being originally from the Bay Area of CA, I have the following observations about BART: It never took away from the roadway system. Either it went above or below ground, or when it was at grade, it was placed in areas where there was room to add it to the median without removing traffic lanes.*

   Response: Previous studies have shown that construction of a subway through Honolulu's urban core would be prohibitively expensive due to disruption of existing underground utilities and constant dewatering required due to high water table and poor soils.

   A fully grade-separated aerial transit alternative was also considered and eliminated due to its high costs and physical and visual impacts.

   The decision to utilize an at-grade system for all of the alternatives was therefore made or the purposes of minimizing right-of-way impacts and keeping costs affordable. Due to right-of-way constraints and insufficient space in existing roadway medians or non-existent medians, the Refined LPA includes a mixture of shared-use lanes and exclusive BRT lanes for the In-Town BRT portion of the alignment.

2. *Further, it allowed for huge parking lots at each major outlying station, so "parking and BARTing" is a real possibility.*

   Response: Additional park-and-ride facilities to include approximately 3,600 parking spaces are being planned at various locations on Oahu, as part of or in concert with the Refined LPA.

3. *The BRT Systems appears to take away from several major Diamond Head-Ewa roadways, such as South King, Kapiolani, and Ala Moana. Since we still depend very heavily on the auto, and I have sincere doubts that the BRS will remove sufficient auto traffic to compensate for the traffic lanes removed, I am afraid that BRT will contribute to the congestion problem.*

   Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion

for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

4. *The concept of making things so bad that you force people out of automobiles is a very counterproductive method (in these days of productivity gains, one has to couch this thought using the term "antiproductivity". Do we want to impose another economic competitiveness handicap upon Honolulu?*

   Response: The concept is not to force people out of their cars by making things so bad. The forecast is that congestion will occur without BRT. The difference being that with the Refined LPA people will at least have an option that reduces the delays resulting from the congestion.

5. *Honolulu is long and thin, and east-west traffic has always been the main problem. Removing more lanes in this direction simply contributes to the ongoing arteriolsclerosis we have – the body of Honolulu is trying to race faster, but the blood supply is being reduced by continued narrowing of the arteries.*

   Response: See response to comment #3.

6. *I have not been able to study BRT very well, but one thing that could ameliorate this difficulty somewhat is if there were small, frequent circulator vans (cheap, say for a quarter) that folks could take to quickly get around the downtown area. Then more people could feel that they could leave their car at home and not be paralyzed in town.*

   Response: Part of the hub-and spoke network in the Refined LPA would comprise circulators in the urban core that connect with the BRT stops to serve destinations beyond walking distances from the alignment.

7. *Another measure needs coordination with the State DOT (and cooperation therefrom) in connection with SR 125, which is intended to look at means of enhancing the capacity of the central H-1 corridor (in conjunction with additional HOV–diamond–lanes). This would allow larger numbers of commuters to reach Honolulu in fewer vehicles, with less horrendous traffic jams. There are reasonable ways to add a "shoulder lane" to the central H-1 corridor for use during rush hour, but DOT does not seem to be acting on SR 125. I understand that projects such as H-1 capacity enhancement must make it into a document for submission to the Federal government by December this year, or they will be out of consideration for another 5 years.*

   Response: The OMPO TOP 2025 Plan includes numerous projects in addition to the Regional BRT for enhancing the people carrying ability of the H-1 freeway.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

4/20/02

Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu
Honolulu, HI 96813

RE: Bus Rapid Transit- SDEIS

My name is David Stanton and I support the BRT . I frequently take the bus between my residence in Aiea and Iolani School which I attend. It takes me approximately 1 hour and 30 minutes to make this trip now.

We don't need more cars clogging the streets. What we need is an efficient affordable way for students and other members of the public to get to our daily destinations. Please think of the students like me who would greatly benefit from the faster bus service the BRT would provide.

Sincerely,

David Stanton
98-616 Nohoalii St.
Aiea, HI 96701

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00630

November 13, 2002

Mr. David Stanton
98-616 Nohoalii Street
Aiea, Hawaii 96701

Dear Mr. Stanton:

Subject: Primary Corridor Transportation Project

This is in response to your April 20, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *My name is David Stanton and I support the BRT. I frequently take the bus between my residence in Aiea and Iolani School which I attend. It takes me approximately 1 hour and 30 minutes to make this trip now.*

   Response: This comment is background information that does not require a response.

2. *We don't need more cars clogging the streets. What we need is an efficient affordable way for students and other members of the public to get to our daily destinations. Please think of the students like me who would greatly benefit from the faster bus service the BRT would provide.*

   Response: Comment noted. Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
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CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00631

November 12, 2002

Ms. Linda Starr
P. O. Box 240310
Honolulu, Hawaii 96824

Dear Ms. Starr:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 12, 2000 formal Public Hearing regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *But when I read the document, one thing that I noticed is that it is written with the conclusion in mind already and building backwards.*

   Response: The alternatives were treated in a balanced manner in the MIS/DEIS. It is a federal requirement that all alternatives be treated in a balanced manner and the MIS/DEIS was prepared to ensure that this "balanced treatment" requirement is met. A complete description and comparison of the No-Build Alternative, Transportation System Management (TSM) Alternative, and Bus Rapid Transit (BRT) Alternatives were discussed in the MIS/DEIS.

2. *What I'd like to see in this document is for the TSM to be further expanded.*

   Response: Comment noted. Not enough detail is given on how the TSM should be expanded.

3. *One of the things would be to flesh out more transit centers. We want to keep people from getting into their cars. Once they get into their car, they're committed to their car. They don't want to drive their car, park it, get out, and catch the bus, and get off the bus, and catch another bus, and get onto a train, catch a train, or whatever. We want to make it so that there's more buses that will pick them up at the doorstep, take them to the transit center, so they don't have to get into the cars.*

   Response: The Refined LPA includes many ways transit riders can access the system (i.e., by walking, bicycle, and auto). Since bringing buses within walking distance of all residents is not feasible, park-and rides (free standing and at some of the transit centers) are also being proposed.

4. *And also, for pollution, it assumes that people are still going to be driving gasoline-powered cars. Today, we have companies that have hybrid electric cars. Who knows? In 25 years, all cars would be electric, and then you won't have the pollution.*

   Response: We agree that in the future there may be less polluting fuel sources available for cars than gasoline. However, pollution would be reduced further by the implementation of the Refined LPA utilizing the candidate technologies, including an embedded plate system or a hybrid electric propulsion system.

5. *And I would prefer the TSM. And to make it work, to improve the way it works, what I recommend is that you explore the possibility of building bus bays so that buses can pull up so that the traffic can flow freely when the buses are stopping to pick up people.*

   Response: As part of the Refined LPA bus turnouts will be constructed along selected sections of the In-Town BRT alignment to facilitate the free flow of traffic as the bus stops to drop-off and pick-up passengers.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

Comments to BRT

Thank Mr. Chair, Mayor Harris, City Council members and the guests for allowing me to speak. My name is Joel Stauring; I am the Planning, Zoning, and Transportation Chair of the McCully-Moiliili Neighborhood Board. I have come to speak on a resolution our board passed back in November of 2000. This resolution was passed at that time and several of the issues still have not been addressed or answered.

3. We question the logic and arguments presented for an in-town fixed rapid transit system supported by a hub and spoke bus system to a redesigned Middle Street terminus. We suggest that a rapid transit system from the outlying country areas to a Middle Street terminus that would connect riders to bus expresses into the urban core should be open to further exploration and discussion.

   I want to bring out two points from this statement. First, why do we need a system to take the valuable road space in town when there is an excellent bus system already in place? Secondly, our neighborhood does not want to see upward development. There has not been one transit system that has not caused higher density development along its corridor.

9. We recommend that a study be undertaken by an independent company for the proposed BRT and the Major Investment Study Draft Environmental Impact Statement MIS/DEIS.
   I add, look what happened at Enron and Arthur Anderson; I believe everyone would like to see an independent study conducted.

10. We recommend the development of an urban Honolulu traffic management plan before proceeding with a fixed rail transportation system.

Lastly, I personally want to bring up the issue of cost of over $1 Billion dollars. Coming from the finance and investing profession I can tell you an increase this large in the debt ratio may cause Moody's and Standards & Poor to drop the bond ratings for the City. This will force the City to issue bonds at higher interest rates for future CIP projects. This translates to more costs to operate the city, causing an increase in taxes.

I foresee the city may raise vehicle registrations to try to recoup the costs of this project and encourage motorists out of their automobiles and onto the BRT.

POSITION OF THE McCULLY-MO' ILI' ILI NEIGHBORHOOD BOARD NO.8 ON THE BUS RAPID TRANSPORTATION PLAN

November 2, 2000

The McCully-Mo'ili'ili Neighborhood Board No. 8 submits the following comments regarding the proposed Transportation Plan to the City Council of Honolulu and The City Administration.

1. The proposed dedicated fixed tram routes through McCully-Mo'ili'ili as communicated by the City Administration via the Department of Transportation Services as the preferred route voiced by McCully-Mo'ili'ili residents during the Trans 2K community meetings were never supported by participants from our neighborhood. We do not understand the basis for this statement by the City Administration via the Department of Transportation Services.

2. The Major Investment Study Draft Environmental Impact Statement MIS/DEIS is deficient in its economic analysis on alternative modes of transportation and its impact on private transportation systems. The Board takes a cautious approach in supporting a transportation monopoly.

3. We question the logic and arguments presented for an in-town fixed rapid transit system supported by a hub and spoke bus system to a redesigned Middle Street terminus. We suggest that a rapid transit system from the outlining country areas to a Middle Street terminus that would connect riders to bus expresses into the urban core should be open to further exploration and discussion.

4. Due to conflicting statistical information, we question the immediate necessity to make a decision on establishing a dedicated fixed route system.

5. We question whether the City has maximized the potential of the current bus system. We are pleased that the City is investigating alternative forms of energy for the BRT; likewise, we suggest that buses in the future could be powered by photovoltaic and fuel cells.

6. We believe the MISDEIS does not adequately address 21st Century communication systems and its impact on a work force traditionally reliant on transportation to and from an established work center.

7. The City states that the transportation system will dictate future development for the PUC. We believe the MIS/DEIS is does not adequately address social and environmental impacts related to development and growth. We believe transportation, planning, zoning, and water resource allocation are inseparable in planning urban growth; and thus believe that an EIS should be prepared with these four components as a sum of the total rather than as individual denominations. We believe segmenting these four components, while perhaps legal under the law, is ultimately detrimental in determining our vision for the future; and ensuring the quality of life we desire for our community of McCully-Mo'ili'ili.

8. We believe that transportation should be developed to help level the economic playing field for small landowners and businesses. We do not believe the Honolulu transportation system should subsidize large investors and landowners at the expense of Hawaii's taxpayer.

9. We recommend that a study be undertaken by an independent company for the proposed BRT and the MIS/DEIS.

10. We recommend the development of an urban Honolulu traffic management plan before proceeding with a fixed rail transportation system.

11. We note that the general public has been given very little time to fully study and comprehend the enormity of the proposals; especially in its impact to development as proposed in the City's Draft Primary Urban Center Development Plan.

12. There are too many unanswered questions for the Board to take the next step in supporting a billion dollar BRT transportation venture.

13. The McCully-Mo'ili'ili Neighborhood Board support further studies to analyze financial, social and environmental impacts for fixed rail transportation systems.

14. We are able to support the Transportation System Management Alternative number 2.

John Kato, Chairperson
McCully-Mo'ili'ili Neighborhood Board No. 8.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00632

November 13, 2002

Mr. Joel Stauring
2323 A Lime Street
Honolulu, Hawaii 96826

Dear Mr. Stauring:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing and your April 20, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm the Planning, Zoning, and Transportation chair for the McCully-Moiliili Neighborhood Board. In November of 2000, our board passed a resolution opposing the BRT in our area. I would like to take a few minutes – I guess a minute to discuss some of the points in the resolution.*

   Response: Thank you for attending the public hearing and sharing your thoughts regarding the project.

2. *We, the board, question the logic and arguments presented for a In-town fixed rapid transit system supported by a hub-and-spoke bus system to a redesigned Middle Street terminus. We suggest that a rapid transit system from the outlying country areas to a Middle Street terminus that would connect riders to bus expresses into the urban core should be open to further exploration and discussion.*

   Response: An LPA has already been selected in November 2000.

3. *One of the points I wanted to bring out was that we do not oppose this BRT in outlying areas. We think it will help and enhance those areas. But in town, in our neighborhood, it will congest it more. The bus system is a great system, and we believe it works within those areas.*

   Response: Chapter 4 of the FEIS fully discusses the consequences of converting selected general purpose lanes to priority use by transit vehicles.

   When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

4. *The second thing I wanted to bring up is that our neighborhood is opposed to upward development. All transit systems have seen that higher density developments have gone in along the corridor of bus rapid transit – I'm sorry – against where transit systems have been brought in. And so we oppose that in our area.*

Response: By itself, the In-Town BRT would have little influence on land use development in the PUC. In order for higher density development to occur, a number of factors in addition to good access need to occur. These factors include supportive land use/ zoning policies; adequate parcel sizes; favorable land costs: and demonstrated market demand for the proposed project in that location.

5. *We recommend that a study be undertaken by an independent company for the proposed BRT and the Major Investment Study Draft – Major Investment Study.*

   Response: A multitude of independent consultants have been and will continue to be involved in analyzing the impacts and costs of the project.

6. *I'd add, look at what happened to Enron and Arthur Anderson. I believe everyone would agree that we need to have an independent study conducted to look over those figures.*

   Response: Comment noted. We disagree that the Primary Corridor Transportation Project and the Enron/Arthur Anderson situation are similar.

7. *We recommend the development of an urban Honolulu traffic management plan before proceeding with a fixed rail transportation system.*

   Response: A Honolulu traffic management plan is a good idea. The Transportation for Oahu Plan (TOP 2025) approved by the Oahu Metropolitan Planning Organization (OMPO) on April 6, 2001 provides a long-range perspective for the entire island. The Honolulu urban area has been evaluated through several sub-area studies. A Honolulu traffic management plan would help to unify the results of these studies.

   As a point of clarification, the Refined LPA does not propose fixed-rail transit. Instead, it proposes a more flexible bus rapid transit (BRT) system that utilizes rubber-tired vehicles running in a combination of exclusive, semi-exclusive, and mixed-flow roadway lanes.

8. *Lastly, I personally want to bring up the issue of the cost of over $1 billion, and that is in 1995 – or 1998 money. When we pay it out, it will be well over that due to inflation. Coming from a finance profession, I can tell you that the increase in large debt ratio will cause – or may cause Moody's and Standard & Poors to drop the bond ratings for the City, which will cause increased interest rates and future – for future CIP projects. This translates to more costs to operate the City, causing an increase in taxes.*

   Response: The cost of the project is paid for with a combination of federal and local revenue sources. 64 percent of the project is paid for by federal sources. The $369.9 million dollars in General Obligation bond proceeds, to be spent over a 14 year period, is well within the capacity of the City as measured by rating agencies and the City's Debt and Financial Policies as passed by the City Council in April 2002.

9. *I also foresee the City may raise vehicle registrations to try to recoup the costs of the project and to encourage motorists out of their automobiles and onto the BRT.*

   Response: Comment noted. The MIS/DEIS, SDEIS, and FEIS Chapter 6 discuss the project financing, which does not include raising vehicle registration fees.

10. *We question the logic and arguments presented for an in-town fixed rapid transit system supported by a hub and spoke bus system to a redesigned Middle Street terminus. We suggest that a rapid transit system from the outlying country areas to a Middle Street terminus that would connect riders to bus expresses into the urban core should be open to further exploration and discussion.*

    I want to bring out two points from this statement. First, why do we need a system to take the valuable road space in town when there is an excellent bus system already in place? Secondly, our neighborhood does not want to see upward development. There has not been one transit system that has not caused higher density development along its corridor.

    Response: The Regional BRT will provide service between Kapolei and the Middle Street Transit Center, where people can continue into town on that bus, or connect to local buses or the In-Town BRT system. The BRT will carry more people than single-occupancy vehicles and give Honolulu residents another transportation mode to use when making trips. The BRT alone will not result in development, but will help give access to neighborhoods.

11. *We recommend that a study be undertaken by an independent company for the proposed BRT and the Major Investment Study Draft Environmental Impact Statement MIS/DEIS.*

    I add, look what happened at Enron and Arthur Anderson; I believe everyone would like to see an independent study conducted.

    Response: See responses to comments # 5 and #6.

12. *We recommend the development of an urban Honolulu traffic management plan before proceeding with a fixed rail transportation system.*

    Response: See response to comment #7.

13. *Lastly, I personally want to bring up the issue of cost of over $1 Billion dollars. Coming from the finance and investing profession I can tell you an increase this large in the debt ratio may cause Moody's and Standards & Poor to drop the bond ratings for the City. This will force the City to issue bonds at higher interest rates for future CIP projects. This translates to more costs to operate the city, causing an increase in taxes.*

    Response: See response to comment #8.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

RECEIVED
02 MAY 9 P1:25
DIRECTOR'S OFFICE
DEPT. OF
TRANSPORTATION SERVICES

May 6, 2002

Cheryl A. Stephenson
1777 Ala Moana Blvd. #739
Honolulu, HI 96815

Cheryl D. Soon, Director
Department of Transportation Service
City and County of Honolulu
650 S. King Street, 3rd floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

Re: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

I have recently consulted Traffic Engineers from Charlotte, N.C. and Chicago, Illinois in an effort to answer my questions regarding Bus Rapid Transit. Mr. William Finger, Traffic Engineer for Charlotte, N. C. told me that there are a number of successful Rapid bus systems, most notably Ottawa, Curitiba, Pittsburgh, Euclid, and Eugene. The key to success, according to Mr. Finger, is dedicated bus lanes. "Riding the bus must be faster than driving". Mr. Tom Kaeser, Traffic Engineer for Chicago, told me of a miserable failure in the early '80's where counterflow bus lanes were attempted on 'one way' streets. Numerous accidents occurred both at intersections and mid-block, resulting in lawsuits against the city and at least one fatality. "The streets were well marked with warning signs and paint, but it didn't help. The counterflow bus lanes were subsequently removed".

Please answer the following questions for me:

1) If, according to experts, riding a bus must be faster than driving in order to be called rapid, how can the Primary Corridor Transportation Project be called rapid? The buses in this plan do not travel faster than traffic.

2) You have stated that bus riders will cut 3 min. from their commute time in certain areas on this system. I see this as a deliberate attempt to fool the public because a time savings of this nature can, and will be accomplished simply by skipping or removing stops. Buses will not be moving faster than cars, so please explain for me how this system will meet the rapid criteria?

3) My investigation of counterflow bus lanes on 'one way' streets has proven to me that such implementation would be an extreme safety hazard. Please site specific examples of successful counterflow situations on 'one way' streets. (Chicago found that by simply removing a few stops in the desired direction they were able to accomplish the same time savings.Again, we are not talking rapid, but rather a system of express buses.

I have been told by experts that $1,000,000,000 is over the top for a bus system that does not meet the description of rapid. What would be your reasoning for deliberately deceiving the public, your City Council, the FTA, and the OAQC? Is your intent simply to "capture Federal money" as a recent BRT newspaper advertisement suggests. Is this a 'get the money now, worry about the system later' scheme? I look forward to your comments.

Sincerely,

Cheryl Stephenson

cc: Ms. Donna Turchie FTA
201 Mission Street Suite 2210\
San Francisco, California 94105-1839

Genevieve Salmonson OEQC
235 Beretania Street, Suite 702
Honolulu, HI 96813

Honolulu City Council

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01885R

November 13, 2002

Ms. Cheryl A. Stephenson
1777 Ala Moana Boulevard, #739
Honolulu, Hawaii 96815

Dear Ms. Stephenson:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the Public Hearing on April 20, 2002, and your May 6, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'd like to confine my comments to the City budget. On Thursday, we read in the newspaper that there's a moratorium on swimming pools considered because the City lacks money for maintenance. And a quote from Ann Kobayashi says, "When a pool goes in, we should plan ahead and see that we have the money to operate and maintain it." I see a lot of quotes about pay for systems and that there will be no new taxes for the systems. But I don't see a lot of print about how we're going to pay for the maintenance. If we can't pay for public swimming pool maintenance, how can we possibly pay for the maintenance on a new fendangled bus system?*

   Response: The financial plan includes a detailed projection of the operating and maintenance costs, and the sources of revenue for those costs.

2. *I also have some questions about the real vision of the Department of Transportation, when we were first hearing about an expensive embedded-plate electromagnetic system to move the buses. In today's Advertiser, the last paragraph, is a quote from Cheryl Soon that says that now a half a billion dollars will be spent on the current planned buses, and I believe these are wheeled type buses. But she goes on to say that a later consideration might be the embedded-plate electromagnetic bus system if the technology improves. Now, isn't this just a little wishy-washy? It says to me that you don't have a clear vision of where you're going, and you're willing to spend half a billion dollars in buses now and change your mind at a future date.*

   Response: This is not wishy-washy. It is sound implementation planning that uses state-of-the-art technology, but only after it has been thoroughly tested and is service proven in other cities. The plan is to start the system with environmentally friendly, hybrid-electric buses, and to convert to embedded plate, once it has been service proven. There is always the option of continuing with hybrid-electric even once embedded plate is proven. This decision will not have to be made until 2008.

3. *I have recently consulted Traffic Engineers from Charlotte, N.C. and Chicago, Illinois in an effort to answer my questions regarding Bus Rapid Transit. Mr. William Finger, Traffic Engineer for Charlotte, N.C. told me that there are a number of successful Rapid bus systems, most notably Ottawa, Curitiba, Pittsburgh, Euclid, and Eugene. The key to success, according to Mr. Finger, is*

dedicated bus lanes. "Riding the bus must be faster than driving". Mr. Tom Kaeser, Traffic Engineer for Chicago, told me of a miserable failure in the early 80s where contraflow bus lanes were attempted on 'one way' streets. Numerous accidents occurred both at intersections and mid-block, resulting in lawsuits against the city and at least one fatality. "The streets were well marked with warning signs and paint, but it didn't help. The counterflow bus lanes were subsequently removed".

Response: Comment noted. As stated in the MIS/DEIS, SDEIS, and FEIS, Chapter 2, the Primary Corridor Transportation Project includes exclusive, semi-exclusive, and shared travel lanes that give priority to buses. Only about seven percent (1.9 lane miles) of the In-Town BRT will be contra-flow, the remaining 23.7 lane miles will be normal flow.

Contra-flow bus lanes exist in many cities around the world. Examples of existing contra-flow bus lanes in the U.S. include the Lincoln Tunnel in New York, Sansome Street in San Francisco, Spring Street in downtown Los Angeles, most of the Lymmo downtown circulator loop in Orlando,FL, and a section of Kuhio Avenue in Waikiki.

4. *If, according to experts, riding a bus must be faster than driving in order to be called rapid, how can the Primary Corridor Transportation Project be called rapid? The buses in this plan do not travel faster than traffic.*

   Response: During the peak hours, the BRT vehicles will be traveling faster than autos in the general purpose lanes on H-1 since they will be in the zipper lane. Similarly, where the BRT vehicles will be in exclusive arterial lanes they will be traveling faster than autos wherever the autos are caught in congestion. This is because the BRT lanes will have unrestricted flow, whereas motorists will typically encounter traffic delays.

5. *You have stated that bus riders will cut 3 min. from their commute time in certain areas on this system. I see this as a deliberate attempt to fool the public because a time savings of this nature can, and will be accomplished simply by skipping or removing stops. Buses will not be moving faster than cars, so please explain for me how this system will meet the rapid criteria?*

   Response: Many bus riders will have savings much greater than 3 minutes. Travel time savings will occur not only because there will be limited stops. Savings will occur from the priority lanes, and from features of the buses and the stops. These include level boarding from 3 doors at a time with pre-payment of fares. Signal priority at selected intersections will also help speed up the BRT travel times.

6. *My investigation of counterflow bus lanes on 'one way' streets has proven to me that such implementation would be an extreme safety hazard. Please cite specific examples of successful counterflow situations on 'one way' streets. (Chicago found that by simply removing a few stops in the desired direction they were able to accomplish the same time savings. Again, we are not talking rapid, but rather a system of express buses.*

   Response: See response to comment #3.

7. *I have been told by experts that $1,000,000,000 is over the top for a bus system that does not meet the description of rapid. What would be your reasoning for deliberately deceiving the public, your City Council, the FTA, and the OAQC? Is your intent simply to "capture Federal money" as a recent BRT newspaper advertisement suggests. Is this a "get the money now, worry about the system later" scheme? I look forward to your comments.*

Response: The roughly $1 billion cost refers not only to the Regional and In-Town BRT. Approximately $500 million of this will be for replacement of buses and Handi-Vans over the 23-year planning period of the project. This project is very cost effective when compared to any existing or planned BRT or light rail system.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

May 5th, 2002

RECEIVED
02 MAY 9
DIRECTOR'S OFFICE OF TRANSPORTATION SERVICES

TO: Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu
650 S. King Street, 3rd Floor
Honolulu, Hawaii 96813

Copy: Ms. Donna Turchie FTA
201 Mission Street Suite 2210
San Francisco, California 94105-1839

Copy: Genevieve Salmonson OEQC
235 Beretania Street, Suite 702
Honolulu, Hawaii 96813

Ms. Soon:

Re: Comments and Concerns (Primary Corridor Transportation Project)

PURPOSE AND NEED FOR ACTION

How do you enhance mobility and improved travel time and enhance the quality of life for Oahu residents by taking away lanes for exclusive and semi-exclusive bus use?
How is this deemed an attractive alternative if it is not on its own "right of way" and causes traffic congestion or gridlock and at the same time increases that total congestion?

ALTERNATIVES CONSIDERED

Why was the TSM Alternative not considered as an improvement with the proposed hub and spoke system?
Why wouldn't you provide improved service at the Eva end of the system first instead of in the Downtown/Waikiki corridor which gains only 3 minutes time (from 18.7 to 15.7 minutes) for 3.3% increase in ridership at a cost of Millions of dollars. Additionally it uses 12 of the existing transit stops and only adds 4 new ones. Where is this money being spent?

Contra Flow lanes are proposed on King and Pensacola, what other streets will have this type lane? Do you consider Contra Flow lanes to be safe? Have any cities in the mainland discontinued the use of these type of lanes because of fatalities to pedestrians?

ADDED COST TO THE PUBLIC

How can you say this will not cost the taxpayers any additional money when your Capital Cost Summary shows an increase of $745,600,000 over the no build option?
What about the Annual Operating and Maintenance Costs which are millions higher than the No Build Option? Isn't that additional taxpayer cost?

TRANSPORTATION IMPACTS

The plan mentions use of articulated buses. How long are they? How long are the Bi—articulated buses that are briefly mentioned?

How will the BRT offer fast efficient travel when it is on mostly semi-exclusive transit lanes. What happens when vehicles that make up 80% to 90% of the traffic on the roads needs to turn left or right and stop at lights? Do you account for their concerns of congestion and gridlock?

THE NUMBERS DO NOT COMPUTE. ASSUME THE SMALLER NUMBER OF 80% OF THE VEHICLES ON THE ROAD GET REDUCED BY 3%, THAT STILL LEAVES 77% OF THEM ON THE ROAD. Tax paying citizens have spent $1,000,062,500 for an improperly designed BUS SYSTEM not a mass transit system, WHY?

You show a loss of 912 parking spaces and 26 loading zones. How are businesses, residents and the PUBLIC in general compensated for the loss of commerce or convenience that they suffer? Is this not a form of DISPLACEMENT?

FTA COST-EFFECTIVENESS

You claim an average 11 percent increase in person carrying ability in the Urban Core. Don't you achieve this by carrying a significant number of tourists who do not have cars? Is this not a direct competition with private carriers? Is this why you are trying to do the Urban Core first to "pad the numbers" to try and justify the multi-million dollar expenditure to the FTA?

ASSUMPTIONS-THAT REQUIRE ANSWERS

How do you make an effective plan with all the FINANCIAL ASSUMPTIONS on Page 6-23? What are the consequences to the TAX PAYING PUBLIC if your assumptions are incorrect?

The Federal Transit money has been reduced by $30,000,000 this year, the State has said they are not interested in funding the project (Brian Minaai letter to Cheryl Soon dated September 18, 2001, "It is not our intent or expectation to provide funding for the BRT project; and bave developed our capital improvements programs accordingly." How can the TAXPAYERS in the city afford this?

Public Transit systems survive primarily because of SUBSIDIES and not fares. How can you say there will be no increase in taxes when you go from 1181 transit jobs to 1760 or an increase of 49%? Won't that cause an increase in expenses that the PUBLIC pays for through taxes?

The reply "details of parking and loading zone mitigation would be coordinated at the neighborhood level during subsequent project planning". This is not mitigation of their loss but merely FINALLY informing them of your intentions to eliminate their parking. Why wasn't this done in advance so they could express their opinions? How are they compensated for the loss?

The financial plans were developed "based on the assumptions that the full scope of each alternate must be completed WITHOUT raising taxes, and that the City's high bond rating must not be affected." With the realization that you are in effect RAISING TAXES and the Mayor has over spent and the City is broke and the mandatory review later this year will no doubt lower the bond rating bow is any BRT option viable?

You state the "City General Obligation (GO) bonds would be used to fund up to 47% of the cost of these altematives. Additional GO bonds would be issued to fund early construction activities in anticipation of later federal or State reimbursement." How is this assumption ethical or possible since the State is written out of the process?

Where is the data that supports your statement? "A fully grade-separated transit system was considered and rejected because of high cost, physical and visual impacts, and community opposition."

"Duplication of routes is operationally not efficient and results in slower travel through the corridor." Isn't the proposed downtown/Waikiki branch at least a partial duplication of existing routes 8,19 and 20? How is this efficient?

Can you explain, on Ala Moana Blvd., if the Auto LOS is an "F" and the BRT runs on a shared lane rather than an exclusive lane how can the Transit LOS be improved to an "A"? The bus is part of the problem shouldn't the LOS should still be an F? (Table 4.2-7)

On Ala Moana Blvd., what is the benefit of narrowing and adding lanes to change the LOS F to LOS E at Hobron Lane? One block later three lanes, have to "bottleneck" down to two lanes at Kalia Road, what will that do to the LOS?

You state that Kuhio sidewalks should be widened. "This would remove one traffic lane in each direction." How can this not impact vehicles, tour busses, taxis and delivery vans with a 50% reduction in lanes?

Per Table 5.1-4 the total project is estimated to cost is estimated at $1,062,500,000 in 1998 dollars. How do you justify that over half $550,800,000 is being spent outside Hawaii for equipment?

CONCLUSION

Table 6.1-3C shows the In-Town BRT will cost $345,509,000 from 2002 to 2010. How can you justify that amount of money for a few additional bus stops on already existing roadways for a 3.3% increase in ridership and a THREE minute improvement in time from Downtown to Waikiki?

WHY NOT JUST ADD A FEW NEW EXPRESS ROUTES TO AN ALREADY GREAT BUS SYSTEM AND SAVE THE FEDERAL MONEY FOR A TRUE MASS TRANSIT SYSTEM ON ITS OWN RIGHT OF WAY WITHOUT INCREASING CONGESTION ON OUR ALREADY CROWDED STREETS?

WHY DO YOU NEED TO PUT DOWN NEW CONCRETE WHEN THE EXISTING ASPHALT IS ADEQUATE EXCEPT AT THE BRT TRANSIT STOPS?

TEST THE SYSTEM WITHOUT PUTTING DOWN THE CONCRETE SO THE MONEY IS NOT WASTED WHEN THIS BECOMES OAHU'S NEXT "VAN CAM 2" AND YOU DISCONTINUE THE PROGRAM?

Dick Stephenson
1777 Ala Moana Blvd. Box 2701-2001
Honolulu, Hi 96815
cc: City Council Members

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01886R

November 13, 2002

Mr. Dick Stephenson
1777 Ala Moana Boulevard, Box 2701-2001
Honolulu, Hawaii 96815

Dear Mr. Stephenson:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, Public Hearing and your May 5, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I have rewritten my testimony so many times sitting here, I don't know where to start. Three minutes is very short. I am a bus rider, a satisfied, middle class bus rider, but I also need a car for various reasons that were stated here. There's many things you cannot take on the bus.*

   Response: We concur that there are times when an automobile is required.

2. *I also support the mass transit plan. When I first heard about BRT and tried to find out something about it, this was the first booklet that I was able to get (indicating). Let me quote you from page two. It says it all. "A successful transportation plan will make it easier and more pleasant to drive, not more difficult." Have we heard anything about easier here today?*

   Response: The refined LPA will result in a less congestion overall than the TSM or No-Build Alternatives.

3. *"Such a plan must expand our choice to become a win-win proposition for drivers, transit riders, pedestrians and bicyclists." Have you heard win-win here today?*

   Response: Comment noted. No response required.

4. *This is what it's all about. This isn't staged. This is real people with real concerns now talking about a real plan, which has been a changing, moving target up till now. And yes, there's going to be more refinement before it moves forward.*

   Response: Refinements are an integral part of the project development and implementation process for major projects such as this.

5. *Couple points that weren't brought up. 912 parking spaces are going to be eliminated in this plan in the urban core, 26 loading zones. If we don't need those, why aren't they gone already? We need those. There's nothing in the plan – and I see it back there, it's this thick – that mitigates the problem for the businesses where those parking spaces are being taken away.*

   Response: DTS is aware that the proposed elimination of on-street parking spaces is of concern to many people. As discussed in Section 4.3, in areas where a large concentration of parking spaces would be effected, replacement parking in new off-street parking facilities will be considered, but only if they meet other livable community objectives and are the result of community-based planning.

6. *If Duke was here – I believe he's gone now. Duke? I don't see him. Okay. I would say this to him if he were here: "Duke, stop and take a deep breath and ask your five counterparts, who because of turmoil – that's six of you who will not be here in the next four to eight years, to back off.*

   Response: Comment noted.

7. *Six months will not lose federal funding.*

   Response: There is an annual cycle which the federal funding process follows.

8. *And let the new incoming City Council vote for a plan that they will have to live with for the next four, or if they're fortunate to rerun, eight years."*

   Response: It was up to the present City Council to pick the LPA and to budget funds for moving the first segment of design and construction forward. It will be up to future City Councils to approve subsequent segments of the project.

9. *Again, the name of this project is Bus Rapid Transit system. There's nothing rapid about it.*

   Response: Comment noted.

10. *Another point that wasn't brought up strong enough. Of the billion plus dollars that this plan is going to cost, 550 million, over half, will be spent outside of Hawaii.*

    So much for jobs for people in Hawaii. That's jobs for people building buses on the mainland, or France, or Italy, or wherever we get them.

    Response: The purchases outside of Hawaii are primarily for replacement of the bus fleet over a 23-year period which will be needed even with the TSM and No-Build Alternatives.

    The BRT, plus TheBus and TheHandi-Van vehicles are manufactured outside of Hawaii. The BRT project will result in additional permanent bus drivers and administrative jobs plus over 4,000 persons-year construction jobs. The MIS/DEIS, SDEIS, and FEIS Section 5.1.5 present the economic impacts/benefits related to the BRT project.

11. *Taxes will not go up. I think Cheryl Soon is correct in that. Taxes will not go up for four days. That's when she goes, on April 24, to Honolulu Hale and asks for $35 million for this in-town portion of the plan. The plan, Bus Rapid Transit System, should be shortened to Bus System. And it can be shortened further to BS.*

    Response: Comment noted.

12. *How do you enhance mobility and improved travel time and enhance the quality of life for Oahu residents by taking away lanes for exclusive and semi-exclusive bus use?*

Response: Chapter 4 of the FEIS fully discusses the consequences of converting selected general purpose lanes to priority use by transit vehicles.

When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

13. *How is this deemed an attractive alternative if it is not on its own "right of way" and causes traffic congestion or gridlock and at the same time increases the total congestion.*

Response: See response to comment # 12.

14. *Why was the TSM Alternative not considered as an improvement with the proposed hub and spoke system?*

Response: The TSM would be an improvement over the No-Build Alternative. It just isn't as effective an improvement compared to the Refined LPA.

15. *Why wouldn't you provide improved service at the Ewa end of the system first instead of in the Downtown/Waikiki corridor which gains only 3 minutes time (from 18.7 to 15.7 minutes) for 3.3% increase in ridership at a cost of millions of dollars. Additionally, it uses 12 of the existing transit stops and only adds 4 new ones. Where is this money being spent?*

Response: Timing and implementation of the P.M. zipper lane and related Regional BRT improvements must be coordinated with the State DOT. SDOT wants to widen the H-1 Freeway in the areas where the P.M. zipper lane is proposed before installing the zipper lane. Since the Iwilei-Waikiki segment of the In-Town BRT can be a viable improvement to the transit system immediately, the City Council has elected to proceed with this segment as the first step in phasing of the BRT system.

16. *Contra Flow lanes are proposed on King and Pensacola, what other streets will have this type lane? Do you consider Contra Flow lanes to be safe? Have any cities in the mainland discontinued the use of these type of lanes because of fatalities to pedestrians?*

Response: Contra-flow lanes will be installed on sections of S. King, Pensacola, Richards, and Kalaimoku Streets. Contra-flow lanes are safe provided proper signing and other warning devices are in place.

17. *How can you say this will not cost the taxpayers any additional money when your Capital Cost Summary shows an increase of $745,600,000 over the no build option?*

Response: The statement made is that there will be no increase in taxes needed to fund the project, not that it will not cost more than the No-Build Alternative.

18. *What about the Annual Operating and Maintenance Costs which are millions higher than the No Build Option? Isn't that additional taxpayer cost?*

Response: See response to comment # 17.

19. *The plan mentions used of articulated buses. How long are they? How long are the bi-articulated buses that are briefly mentioned?*

Response: The articulated buses will be 60-feet long. Bi-articulated buses are not proposed for use on this project. (They are 80-feet long).

20. *How will the BRT offer fast efficient travel when it is on mostly semi-exclusive transit lanes. What happens when vehicles that make up to 80% to 90% of the traffic on the roads need to turn left or right and stop at lights? Do you account for their concerns of congestion and gridlock?*

Response: It is not the conversion of lanes that will create the congestion. The congestion for motorists will be there without the BRT. When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

21. *THE NUMBERS DO NOT COMPUTE. ASSUME THE SMALLER NUMBER OF 80% OF THE VEHICLES ON THE ROAD GET REDUCED BY 3%, THAT STILL LEAVES 77% OF THEM ON THE ROAD. Tax paying citizens have spent $1,000,0652,500 for an improperly designed BUS SYSTEM not a mass transit system, WHY*

Response: Getting three percent of the autos off the road will make a difference.

22. *You show a loss of 912 parking spaces and 26 loading zones. How are businesses, residents and the PUBLIC in general compensated for the loss of commerce or convenience that they suffer? Is this not a form of DISPLACEMENT?*

Response: The Refined LPA's parking impacts would total roughly 533 unrestricted and restricted parking spaces, as reported in the FEIS. As discussed in Section 4.3, in areas where a large concentration of parking spaces would be affected, replacement parking in new off-street parking facilities would be considered, but only if they meet other livable community objectives and are the result of community-based planning. This is a policy decision to be addressed by the City. The on-street parking and loading impacts are not considered displacement, as defined by the federal government. For a discussion on displacements, see Section 5.2 of the FEIS.

23. *You claim an average 11 percent increase in person carrying ability in the Urban Core. Don't you achieve this by carrying a significant number of tourists who do not have cars? Is this not a direct competition with private carriers? Is this why you are trying to do the Urban Core first to "pad the numbers" to try and justify the multi-million dollar expenditure to the FTA?*

Response: The service the In-Town BRT will provide is geared to the needs of residents and workers in the urban core not to tourists, which is the market served by private carriers. The BRT will not take business away from tour bus and shuttle operators, since it will not pick-up tourists at their hotels and take them on various scenic tours. It will not take them to-and-from the Airport. It will not take them to-and-from their hotels and the Convention Center. It will not pick them up at the cruise ship terminal and carry them and their luggage directly to their hotels. And unlike the private shuttles it is not designed to operate in a loop that only goes between Waikiki hotels and the various tourist sites of interest. Some tourists may end up using BRT since it does serve some of the same destinations that the tourists want to go to. But the In-Town BRT goes to these places

because most of these are also major employment sites or sites where local residents go to as well. The number of tourists expected to use the public transit system with the Refined LPA is forecast to be no greater proportionally then today (i.e. around 10-15 percent of total daily boardings).

24. *How do you make an effective plan with all the FINANCIAL ASSUMPTIOINS on Page 6-23? What are the consequences to the TAX PAYING PUBLIC if your assumptions are incorrect?*

Response: The Decision Factors in the last section of the financial plan narrative describe the major factors that may influence the financial plan. The financial plan was developed in a way to allow for the adjustment of the plan as conditions change. The ability of the plan to be flexible is demonstrated in changes made from the MIS/DEIS stage, to the SDEIS stage, to the FEIS. The basic conceptual model has been the same throughout, while allowing for changes in costs, and changes in revenue sources.

25. *The Federal Transit money has been reduced by $30,000,000 this year, the State has said they are not interested in funding the project (Brian Minaai letter to Cheryl Soon dated September 18, 2001, "it is not our intent or expectation to provide funding for the BRT project; and have developed our capital improvements programs accordingly." How can the TAXPAYERS in the city afford this?*

Response: State highway funds are not included as a revenue source in the FEIS. The $40 million dollars are paid for with a combination of FTA Section 5309 New Start grant funds and City GO Bond proceeds.

26. *Public Transit systems survive primarily because of SUBSIDIES and not fares. How can you say there will be no increase in taxes when you go from 1181 transit jobs to 1760 or an increase of 49%? Won't that cause an increase in expenses that the PUBLIC pays for through taxes?*

Response: In 2001, the City Council passed a policy that says that bus fares should recover no less than 27 percent of the cost, and no more than 33 percent. This reflects the City's policy position on the extent of public support for public transportation. Operations and maintenance (O&M) costs will be higher for a system that has more capacity and carries more passengers. If the fares are kept at 27 percent of operating costs, then the BRT O&M costs will be an average of $16.1 million more than the No Build O&M costs, and $10.9 million more than the TSM alternative. The City has the financial capacity for this increase using existing sources of revenue.

27. *The reply "details of parking and loading zone mitigation would be coordinated at the neighborhood level during subsequent project planning". This is not mitigation of their loss but merely FINALLY informing them of your intentions to eliminate their parking. Why wasn't this done in advance so they could express their opinions? How are they compensated for the loss?*

Response: Parking impacts were disclosed in the MIS/DEIS, and we have tried to be as responsive in addressing community concerns about loss of parking. However, elimination of parking is an unavoidable adverse impact, and the mitigation proposed is to consider replacement parking in new off-street parking facilities in areas of concentrated parking impacts, but only if such replacement parking were to meet other liveble community objectives and are the result of community-based planning. This is a policy decision to be addressed by the City.

28. *The financial plans were developed "based on the assumptions that the full scope of each alternate must be completed WITHOUT raising taxes, and that the City's high bond rating must not be affected." With the realization that you are in effect RAISING TAXES and the Mayor has over spent and the City is broke and the mandatory review later this year will no doubt lower the bond rating how is any BRT option viable?*

Response: In preparing the FEIS, the level of GO bonds per year was established within the City's Debt and Financial Policies as passed by the City Council in April, 2002, leaving capacity for other major capital projects.

29. *You state the "City General Obligation (GO) bonds would be used to fund up to 47% of the cost of these alternatives. Additional GO bonds would be issued to fund early construction activities in anticipation of later federal or State reimbursement." How is this assumption ethical or possible since the State is written out of the process?*

Response: Not removing the State as a reimbursement source was an inadvertent clerical error. This is corrected in the FEIS.

30. *Where is the data that supports your statement? "A fully grade-separated transit system was considered and rejected because of high cost, physical and visual impacts, and community opposition."*

Response: The 1990 Rapid Transit Project reflects a very detailed plan, including costs and impacts for an elevated rail system. Based on what was known from that project, at the outset of the PCTP, the community at public meetings, and the City Council rejected a grade-separated transit system as too costly and unsightly.

31. *"Duplication of routes is operationally not efficient and results in slower travel through the corridor." Isn't the proposed downtown/Waikiki branch at least a partial duplication of existing routes 8, 19 and 20? How is this efficient?*

Response: As part of the Primary Corridor Transportation Project, future transit operations were evaluated with assumed modifications to the transit system. Transit route modifications assumed for the FEIS analysis include the following: Route 8 would be replaced by the BRT and Routes 19 and 20 would be maintained to provide local bus service between Hickam AFB and Waikiki. Routes 19 and 20 are local buses, which stop more frequently than the limited stop BRT would. By stopping at only selected transit stops, the BRT will be able to travel faster, providing better travel times to transit riders. This is similar to the way Route A CityExpress! and Route 3 – Ruger both operate on Kapiolani Boulevard, the former a limited stop route and the latter and local route.

32. *Can you explain, on Ala Moana Blvd., if the Auto LOS is an "F" and the BRT runs on a shared lane rather than an exclusive lane how can the Transit LOS be improved to an "A"? The bus is part of the problem shouldn't the LOS should still be an F? (Table 4.2-7)*

Response: The auto LOS is an overall index of intersection operation which is comprised of a weighted average of all intersection approaches. The transit LOS is comprised only of the BRT movements at the intersection. The Ala Moana Boulevard intersections listed in Table 4.2-7 are within a portion of the BRT route that includes semi-exclusive transit lanes. These semi-exclusive

lanes would only allow BRT, City bus, tour bus, and vehicles turning right into cross streets. The reduced level of demand and the assumed transit priority at traffic signals for this lane will allow it to operate at a better LOS than other lanes and approaches.

33. *On Ala Moana Blvd., what is the benefit of narrowing and adding lanes to change the LOS F to LOS E at Hobron Lane? One block later three lanes, have to "bottleneck" down to two lanes at Kalia Road, what will that do to the LOS?*

    Response: The Refined LPA documented in the FEIS includes modifications to the cross-section of Ala Moana Boulevard between Atkinson Drive and Kalia Road. This includes the addition of semi-exclusive lanes for use by BRT vehicles, City buses, tour buses, and vehicles turning right into cross streets. This segment of Ala Moana Boulevard is already experiencing significant traffic congestion and reallocation of one lane in each direction from general-purpose to semi-exclusive use would have greatly worsened the situation. Because this area included an existing wide median, new lanes are proposed between Hobron Lane and Kalia Road by narrowing the median and reducing the width of the travel lanes. The three Koko Head bound through lanes will be continued through the Kalia Road intersection before being merged back to two lanes.

34. *You state that Kuhio sidewalks should be widened. "This would remove one traffic lane in each direction." How can this not impact vehicles, tour buses, taxis and delivery vans with a 50% reduction in lanes?*

    Response: Widening of the sidewalks along Kuhio Avenue is being proposed as part of the Livable Waikiki project. It is incorporated in all of the alternatives that were looked at in the PCTP.

35. *Per Table 5.1-4 the total project is estimated to cost is estimated at $1,062,500,000 in 1998 dollars. How do you justify that over half $550,800,000 is being spent outside Hawaii for equipment?*

    Response: The purchases outside of Hawaii are primarily for replacement of the bus fleet over a 23-year period which will be needed even with the TSM and No-Build Alternatives.

36. *Table 6.1-3C shows the In-Town BRT will cost $345,509,000 from 2002 to 2010. How can you justify that amount of money for a few additional bus stops on already existing roadways for a 3.3% increase in ridership and a THREE minute improvement in time from Downtown to Waikiki?*

    Response: The costs for the In-Town BRT include a lot more than a few additional bus stops. It includes paving the BRT lanes with concrete, installing embedded-plate modules and traction power system, installing more advanced traffic signal elements, improving sidewalks to make it easier to get to the stops, and installing waiting platforms with canopies, benches, lighting and landscaping.

37. *WHY NOT JUST ADD A FEW NEW EXPRESS ROUTES TO AN ALREADY GREAT BUS SYSTEM AND SAVE THE FEDERAL MONEY FOR A TRUE MASS TRANSIT SYSTEM ON ITS OWN RIGHT OF WAY WITHOUT INCREASING CONGESTION ON OUR ALREADY CROWDED STREETS?*

    Response: Express routes on their own would not offer the same benefits of a BRT system that has many other features to speed it along including zipper lanes, special freeway ramps, priority lanes in-town, level boarding from 3 doors, and signal priority at selected intersections.

38. *WHY DO YOU NEED TO PUT DOWN NEW CONCRETE WHEN THE EXISTING ASPHALT IS ADEQUATE EXCEPT AT THE BRT TRANSIT STOPS?*

    Response: The existing asphalt concrete pavements in most locations will not be able to sustain heavy repetitive loads from BRT vehicles. Concrete lanes will extend the life of the pavement and reduce the road maintenance over the life of the project.

    Pavement damage can be observed on many City and County Streets where TheBus routes its vehicles on asphalt concrete pavements. This is readily observed on Dillingham Boulevard where the curbside lanes have severe rutting and damage due to TheBus traffic. The City has several projects to place concrete lanes at locations with heavy repetitive bus traffic loads. Recent examples of projects that have been completed or are planned are on King Street and Kapiolani Boulevard.

39. *TEST THE SYSTEM WITHOUT PUTTING DOWN THE CONCRETE SO THE MONEY IS NOT WASTED WHEN THIS BECOMES OAHU'S NEXT "VAN CAM 2" AND YOU DISCONTINUE THE PROGRAM?*

    Response: A test of closing a lane is not a test of what will happen with the BRT, it is only a test of what happens when a lane is closed which is something everyone knows from when lanes are temporarily closed during utility construction.

    As is pointed out in Chapter 4 of the FEIS, over time there will be more than enough people diverted from autos to transit to offset the impact of converting lanes for priority use by buses. This diversion from autos will only happen once it is clear that the BRT installation is a permanent improvement, not part of some test.

    What is proposed with the first branch between Iwilei and Waikiki will be a good test of the ability of BRT to attract new riders and the impacts of converting lanes in selected locations.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Testimony in Support of Bus Rapid Transit

My name is Georgette Stevens-Begley and I have been a resident of Makakilo for the past 12 years and I grew up in Wai`anae. Although I work in Kapolei, when I was younger I used to take the bus from Wai`anae to Honolulu and Waipahu to get to college and know that the Bus Rapid Transit (BRT) would have been beneficial back then and will be beneficial now. I support BRT because:

1. The users would get to their workplace much quicker than if they drove their cars during peak-time.
2. The users would save a lot of money on their car maintenance, fuel bill, and in some cases insurance because their risk exposure would decrease significantly. Some of my family members travel from Makaha to Honolulu and that is a daily round trip of 80 miles.
3. Since there would be a lane dedicated for BRT, there would be less roadways for others to drive on and it will encourage others to use BRT.

Since I can remember, traffic has always been a problem and continues to get worse. Our City and State have examined various forms of transportation systems, such as the mass rail system, and have come to no conclusion, with the exception of the zipper lane. With the BRT in place, it will not be too costly to implement, it will be beneficial to most of the daily commuters into Honolulu, and it will also decrease the amount of use-to-be-nice-guys who turned into road-rage-monsters.

Mahalo.

Georgette Stevens-Begley
92-1149 Makamai Loop
Makakilo, HI 96707
672-3545 (day) 672-9796 (night)

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Sep 25 4 00 PM '00
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HONOLULU, HAWAII

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00633

November 13, 2002

Ms. Georgette Stevens-Begley
92-1149 Makamai Loop
Makakilo, Hawaii 96707

Dear Ms. Stevens-Begley:

Subject: Primary Corridor Transportation Project

This is in response to your September 25, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Although I work in Kapolei, when I was younger I used to take the bus from Waianae to Honolulu and Waipahu to get to college and know that the Bus Rapid Transit (BRT) would have been beneficial back then and will be beneficial now. I support BRT.*

   Response: Comment noted. Thank you for supporting the project.

2. *The users would get to their workplace much quicker than if they drove their cars during peak-time.*

   Response: Comment noted. The analysis concurs with this statement.

3. *The users would save a lot of money on their car maintenance, fuel bill, and in some cases insurance because their risk exposure would decrease significantly.*

   Response: Comment noted.

4. *Since there would be a lane dedicated for BRT, there would be less roadways for others to drive on and it will encourage others to use BRT.*

   Response: Comment noted.

5. *Our City and State have examined various forms of transportation systems, such as the mass rail system, and have come to no conclusion, with the exception of the zipper lane. With the BRT in place, it will not be too costly to implement, it will be beneficial to most of the daily commuters into Honolulu, and it will also decrease the amount of use-to-be-nice-guys who turned into road-range monsters.*

   Response: Comment noted.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

JANE SUGIMURA
98-500 Koauka Loop #20F
Aiea, Hawaii 96701
Email: yjsbar@msn.com

RECEIVED
Nov 14 9 05 AM '00
CITY COUNCIL
HONOLULU, HAWAII

November 14, 2000

Via Telefax 527-5733

Duke Bainum, Chair
Transportation Committee
Council, City and County of Honolulu
Honolulu, Hawaii 96813

Re: Testimony in Support of Resolution 00-249 Relating to The Selection of a Locally Preferred Alternative for the Primary Corridor Transportation Project
Hearing: Tuesday, November 14, 2000, 10:00 a.m.

Dear Chair Bainum and Members of the Committee:

I am a resident of Aiea and a member of the Aiea Neighborhood Board #20. I am testifying today in my individual capacity.

Like my neighbors, I am grateful to the Chairman Bainum and our Councilmember Gary Okino for having the public meetings in the community about the proposed new transportation system. Traffic and congestion are big concerns in my neighborhood as they are in many other communities. Because I believe this proposal will alleviate some of those problems in my community, I support this resolution.

With respect to specific items that may be part of the transportation plan as it effects Aiea, I suggest the following that were raised at a community meeting held on October 8, 2000:

1. **Eliminate the Kam Drive-In Site as a Transit Center.** The community is unanimous on this point. No one wants a transit center at this site because it is already congested and because of noise and health concerns.

2. **Designate Kam Highway as a High-Speed Transportation Corridor.** I support the proposal made by Councilmember

Gary Okino at the November 8th public meeting, which would designate Kam Highway as a high-speed corridor for the transit system with a dedicated lane for buses. The extra lane can be constructed by using the median strip and this will not result in the time, expense and inconvenience to businesses and drivers that would result from widening the existing road.

3. Transit Centers. Construct transit centers at the former Slemons Volvo site and the stadium parking lot adjacent to K-Mart for our area. The Slemons site is already the stop for 8 existing bus routes and it is close to main retail center for the area, i.e., Pearlridge Center, Westridge Shopping Center and Pearl Kai Center. The property is adjacent to the bike path and the Pearl Harbor Historic Trail and would give bikers and present and future users of the Trail access to bus system.

Finally the cost of Councilman Okino's proposal will be less than the proposal in the draft EIS which calls for ramps to be constructed from the freeway to Kaonohi Street and construction of a transit center at the Kam Drive-In site.

I am in support of this resolution if Councilmember Okino's proposal is incorporated.

Thank you for allowing me to testify on this bill.

Jane Sugimura

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JEREMY HARRIS
MAYOR

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GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD02-00634

November 13, 2002

Ms. Jane Sugimura
98-500 Koauka Loop, #20F
Aiea, Hawaii 96701

Dear Ms. Sugimura:

Subject: Primary Corridor Transportation Project

This is in response to your October 19, 2000 testimony at the Special Transportation Committee Meeting, your November 14, 2000 fax, and your oral testimony at the November 14, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *As a member of the Neighborhood Board, we did have a meeting last week Monday and because of the concerns raised by the community, the Aiea Neighborhood Board did unanimously adopt the resolution which you will be getting opposing the Kam Drive-In site as a transportation center for the reasons here tonight and at our meeting.*

   Response: The former Kamehameha Drive-In site is no longer being considered for a transit center.

2. *I am concerned about the fact that I think in response to Gary's earlier question about consideration of the Kam Highway corridor. I hope that doesn't preclude the fact that maybe the transportation center could be down there because I think, you know, most of the people who live in the community or what I've heard do not want it at the Kam Drive-In site for all of the reasons that, you know, people have testified about. If there is some way we could find other site for the transportation center, maybe, you know, we can find that out during the task force. That's what we would be looking to do and I as an individual look forward to working with all of you to try to resolve it.*

   Response: The former Kamehameha Drive-In site is no longer being considered for a transit center.

3. *Like my neighbors, I am grateful to the Chairmen Beinum and our Councilmember Gary Okino for having the public meetings in the community about the proposed new transportation system. Traffic and congestion are big concerns in my neighborhood as they are in many other communities. Because I believe this proposal will alleviate some of those problems in my community, I support this resolution.*

   Response: Comment Noted. Thank you for supporting the project.

4. ***Eliminate the Kam Drive-In Site as a Transit Center.*** *The community is unanimous on this point. No one wants a transit center at this site because it is already congested and because of noise and health concerns.*

Response: The former Kamehameha Drive-In site is no longer being considered for a transit center.

5. *Designate Kam Highway as a High-Speed Transportation Corridor. I support the proposal made by Councilmember Gery Okino at the November 8th public meeting, which would designate Kam Highway as a high-speed corridor for the transit system with a dedicated lane for buses. The extra lane can be constructed by using the median strip and this will not result in the time, expense and inconvenience to businesses and drivers that would result from widening the existing road.*

   Response: The Pearl City/Aiea Working Group recommended a peak period contra-flow lane for buses on Kamehameha Highway. A planning study of the contra-flow lane is included in the FY 2003 CIP.

6. *Construct transit centers at the former Siemons Volvo site and the stadium parking lot adjacent to K-Mart for our area. The Siemons site is already the stop for 8 existing bus routes and it is close to main retail center for the area, i.e., Pearlridge Center, Westridge Shopping Center and Pearl Kai Center. The property is adjacent to the bike path and the Pearl Harbor Historic Trail and would give bikers and present and future users of the Trail access to bus system.*

   Response: The Pearl City/Aiea Working Group recommended the former Jim Siemons auto dealership as a transit center site due to its proximity to Kamehameha Highway and Pearlridge Shopping Center. DTS is proceeding with this transit center independent of the PCTP.

   The working group also evaluated several locations for a transit center/park-and-ride facility at Aloha Stadium. The overflow (Kamehameha Highway) parking lot site was selected.

7. *Finally the cost of Councilmen Okino's proposal will be less than the proposal in the draft EIS which calls for ramps to be constructed from the freeway to Keonohi Street and construction of a transit center at the Kam Drive-In site.*

   Response: The concept proposed by Councilman Okino is what is included in the Refined LPA. Some of the elements however are proceeding as seperate projects.

8. *I am in support of this resolution if Councilmember Okino's proposal is incorporated.*

   Response: Based on input received from the members of the Pearl City/Aiea Working Group including Councilmember Okino, Kamehameha Highway will be established as the main transit spine within Pearl City/Aiea with contraflow exclusive bus lanes operating during the a.m. and p.m. peak periods. This is proceeding as an independent project.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00635

November 13, 2002

Mr. Charles O. Swanson
3038 Oahu Avenue
Honolulu, Hawaii 96822

Dear Mr. Swanson:

Subject: Primary Corridor Transportation Project

This is in response to the comment you made on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). At the November 14, 2000 Transportation Committee meeting you supported the Bus Rapid Transit alternative. Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

April 19, 2002

Dear Sir or Madam:

Aloha!

I have been taking the bus for the past 8 years, and I've rode it everywhere on the island. I take the bus to and from work and school. Recent improvements on the bus system such as the Bike racks, City Express as well as the new hub system have made my commute a little more convenient.

This time, I would like you to support the Bus Rapid Transit system to further improve the commute of everyone on the island. There are several reasons for doing so:

- Honolulu needs a high-capacity, fast people-mover, especially during rush-hour. Commute time has gotten longer and longer and there is no signs of improvement.
- A rapid-transit system would "connect" Honolulu with West and Central Oahu in a way that business can be conducted without having to worry about traffic and parking: Imagine a system that shuttles university students between UH Manoa and UH Community Colleges.
- Revitalize our construction industry and give jobs.
- The new system will open up more jobs for bus operators, supervisors, and maintenance workers.

I hope that you would support this system.

Best regards,

Allan Tagayuna
2950 Ala Ilima St., Honolulu

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00636

November 13, 2002

Mr. Allan Tagayuna
2950 Ala Ilima Street
Honolulu, Hawaii 96818

Dear Mr. Tagayuna:

Subject: Primary Corridor Transportation Project

This is in response to your April 19, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I have been taking the bus for the past 8 years, and I've rode it everywhere on the island. I take the bus to and from work and school. Recent improvements on the bus system such as the Bike racks, City Express as well as the new hub system have made my commute a little more convenient.*

   Response: Thank you for your compliments regarding the current bus system. We appreciate your patronage.

2. *This time, I would like you to support the Bus Rapid Transit system to further improve the commute of everyone on the island. There are several reasons for doing so.*

   (A) *Honolulu needs a high-capacity, fast people-mover, especially during rush-hour. Commute time has gotten longer and longer and there is no signs of improvement.*

   (B) *A rapid-transit system would "connect" Honolulu with West and Central Oahu in a way that business can be conducted without having to worry about traffic and parking: Imagine a system that shuttles university students between UH Manoa and UH Community Colleges.*

   (C) *Revitalize our construction industry and give jobs.*

(D) The new system will open up more jobs for bus operators, supervisors, and maintenance workers.

Response: We concur with your observations and appreciate you supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00637

November 13, 2002

Mr. Henry Takahashi
98-943 Moanalua Road
Apt. 1702
Aiea, Hawaii 96701

Dear Mr. Takahashi:

Subject: Primary Corridor Transportation Project

This is in response to your October 19, 2000 oral testimony at the Special Transportation Committee meeting regarding the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *I oppose the project you guys are thinking of because of what are the hours it's going to be operating. I get up at three o'clock in the morning, go to work and I get home at five o'clock certain days. And when I coming on the street coming up by Kam Drive-In at three o'clock, only 15 cars can make a left-turn onto Moanalua Highway.*

   Response: If your concern is the hours of operation of the system as a result of its location at Kamehameha Drive-In, the transit center site at Kamehameha Drive-In and the on/off-ramp from Kaonohi Street to H-1 have been eliminated from consideration.

2. *And how are you guys going to get the bus from Kam Highway up to Kam Drive-In when it's illegal to make a left turn. Since Kam Drive-In has been open, it was never allowed to make a left turn. So when you guys are going to make the hub, are you guys going to make it legal to make a left-turn now?*

   Response: The former Kamehameha Drive-In site is no longer being considered for a transit center.

3. *Have you guys ever thought about looking at Sears warehouse? Because you guys got all the right to condemn the land. There's an off ramp close by and it's easier to build another ramp going to Ewa off that highway.*

   Response: The Sears warehouse property was evaluated as a potential transit center site but was eliminated from consideration because it would require a major business displacement. Also, a BRT H-1 ramp was considered near that location, but eliminated from consideration due its high cost and substantial residential displacements.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00638

November 13, 2002

Mr. Clifton Takemura
2249 Date Street, Apt. 3
Honolulu, Hawaii 96826

Dear Mr. Takemura:

Subject: Primary Corridor Transportation Project

This responds to the comments you made on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your testimony at the October 26, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS. Part B responds to your oral testimony at the SDEIS April 20, 2002 Public Hearing.

Part A – MIS/DEIS Comments

1. *And I personally feel that if we had the light-rail system that was originally planned many years ago, the current problems that we're having right now with so many cars on the street, industrial vehicles that also have to use the same road and causing trouble for pedestrians and other forms of traffic would have been relieved and would have never shown up to be so bad in this half of our twentieth century and be an issue in this beginning of this millennium.*

   Response: Comment noted.

2. *And I look forward to the BRT. Being a bus rider for many years, I am a great fan of the bus system. But also I feel too by my neighborhood board as well as my visioning team is that we want to see the bus route improved basically with this tram-on-wheels and the BRT.*

   Response: Comment noted. Thank you for supporting the project.

Part B – SDEIS Comments

3. *I'm a resident of McCully-Moiliili. I'm also a member of the McCully-Moiliili Neighborhood Board and chairman of their Legislative Affairs Committee. I had an opportunity this morning to hear a lot of people talk about the problem of BRT and the master plan, that is, environmental – the environmental statement has to offer.*

   Response: Thank you for attending the public hearing.

4. *I'm a bus rider ever since being a little boy, born here in the Island of Oahu. And I currently am a bus rider, and I pay for with – sometime with my own – buy the bus pass to use our bus system. And, also, I'm a regular driver as well. I've seen the problem about our cars, our problem with our cars and our traffic. I only want to say that we have been so far talking about traffic congestion, when we should be talking about how could we solve this problem by defining it as a traffic decongestion.*

   Response: We appreciate you sharing your bus riding and Oahu's traffic congestion history.

5. *You know, we live on this island that is very unique, where it's mixed up with a lot of local people, families, both using cars, other forms of transportation to ourselves. But we do have a very good public transit system.*

   Response: Thank you for complementing the current bus system.

6. *The only thing I've been concerned of is the people that – from Waikiki that say that this rapid transit system is another problem.*

   Response: Comment noted. No response required.

7. *I went to see the new EIS to maybe turn this – to drop the – their condition putting it into Waikiki and maybe turning it into a hub-and-spoke area, and then moving this BRT from the country side of our island to the University system itself, that which keeps it on the other side of the Ala Wai so that it would relieve the concern of the people of Waikiki. This is my suggestion based on the new EIS.*

   Response: Waikiki is one of the densest residential and employment sites on the island. Connecting it to other parts of the island by the In-Town BRT will help reduce the number of autos and buses circulating in Waikiki.

8. *And I hope that the people of this DTS will consider my suggestion. And I will be putting in my additional comments in a written testimony, and I'll send it to you people.*

   Response: We appreciate you expressing your views regarding the Waikiki portion of the project.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Toshi Takata
469 Ena Road, Apt. 3303
Honolulu, Hawaii 96815
Tel: 528-7039

RECEIVED

02 MAY 9 P 1:24

DIRECTOR'S OFFICE
DEPT. OF
TRANSPORTATION SERVICES

Comment on Honolulu BRT Project
Honolulu Department of Transportation Services
ATTN: Director Cheryl D. Soon
May 6, 2002

RE: Comment in Full Support of BRT Primary Corridor Project

The traffic congestion caused by far too many private auto commuters in Honolulu is progressively getting worse and the BRT project is the ONLY solution being seriously considered. The project plan has been formulated through a thorough, carefully thought out process and offers real hope in effectively addressing our traffic/commute problems. The current outcries against the system seem largely from the uninformed, narrow-minded status quo motorists who see the project as a threat to their exclusive use of the road.

A key assumption critics make is that commuters will not get out of their autos to use the BRT. This assumption is based on how the buses currently run, and may be valid if that were true. However, the BRT will have more frequent regular buses running in exclusive project lanes allowing travel to be as fast as private autos, even faster during times of peak congestion. Including the time additionally saved by not needing to park a car, a commuter could net considerable savings in time, effort, money, resources, etc. etc.(!) in the daily commute compared to using their autos. And, imagine how many more would consider taking the BRT after seeing commuters "fly" by in the buses while they are stuck in traffic.

As more commuters use the BRT the overall traffic situation will improve as overall auto traffic decreases. Thereby, in the bigger picture we all benefit. The bottom line is that there is not a single more effective and positive way to improve the overall quality of life here for all while enhancing the value of our number one industry (tourism) than to significantly reduce auto use and correspondingly encourage alternatives such as walking, bicycling, and mass transit as envisioned in the BRT project.

The BRT project is a fine way for City & County to demonstrate some real and badly needed leadership on this matter. It is very likely that our children will be grateful that the right direction was taken before auto gridlock was reached.

cc = G. Salmonson @ Office of Environmental Quality Control.

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01888R

November 13, 2002

Mr. Toshi Takata
469 Ena Road, Apt. 3303
Honolulu, Hawaii 96815

Dear Mr. Takata:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *The traffic congestion caused by far too many private auto commuters in Honolulu is progressively getting worse and the BRT project is the ONLY solution being seriously considered. The project plan has been formulated through a thorough, carefully thought out process and offers real hope in effectively addressing our traffic/commute problems. The current outcries against the system seem largely from the uninformed, narrow-minded status quo motorists who see the project as a threat to their exclusive use of the road.*

   Response: We appreciate your support of the BRT project.

2. *A key assumption critics make is that commuters will not get out of their autos to use the BRT. This assumption is based on how the buses currently run, and may be valid if that were true. However, the BRT will have more frequent regular buses running in exclusive project lanes allowing travel to be as fast as private autos, even faster during times of peak congestion. Including the time additionally saved by not needing to park a car, a commuter could net considerable savings in time, effort, money, resources, etc. etc. (!) in the daily commute compared to using their autos. And, imagine how many more would consider taking the BRT after seeing commuters "fly" by in the buses while they are stuck in traffic.*

   Response: These are all valid points.

3. *As more commuters use the BRT the overall traffic situation will improve as overall auto traffic decreases. Thereby, in the bigger picture we all benefit. The bottom line is that there is not a single more effective and positive way to improve the overall quality of life here for all while enhancing the value of our number one industry (tourism) than to significantly reduce auto use and correspondingly encourage alternatives such as walking, bicycling, and mass transit es envisioned in the BRT project.*

   Response: We concur.

4. *The BRT project is a fine way for City & County to demonstrate some real and badly needed leadership on this matter. It is very likely that our children will be grateful that the right direction was taken before auto gridlock was reached.*

   Response: We concur.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

4/20/02

Ms. Cheryl Soon, Director
Department of Transportation
City & County of Honolulu

Dear Ms. Soon,

I recently returned from a trip to Japan and I have also been to San Francisco several times. I am really amazed at their transit systems and hope that, one day, Honolulu will also have a system that we can be proud of.

I fully support the proposed Bus Rapid Transit program. It is the start of a "dream come true."

Thank you,

Lee Takushi

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00638

November 13, 2002

Mr. Lee Takushi

Dear Mr. Takushi:

Subject: Primary Corridor Transportation Project

This is in response to your April 20, 2002 comment regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

I recently returned from a trip to Japan and I have also been to San Francisco several times. I am really amazed at their transit systems and hope that, one day, Honolulu will also have a system that we can be proud of.

I fully support the proposed Bus Rapid Transit program. It is the start of a "dream come true."

Thank you for supporting the BRT project.

Sincerely,

CHERYL D. SOON
Director

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00640

November 13, 2002

Ms. Claire Tamamoto
99-21 Hailimanu Place
Aiea, Hawaii 96701

Dear Ms. Tamamoto:

Subject: Primary Corridor Transportation Project

This responds to the comments you made on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) and Supplemental Draft Environmental Impact Statement (SDEIS). We are responding in two parts. Part A responds to your November 14, 2000 oral testimony at the November 14, 2000 Transportation Committee meeting regarding the MIS/DEIS. Part B responds to the comments you made at the SDEIS April 20, 2002 Public Hearing.

Part A – MIS/DEIS Comment

1. *Testimony supported the PCTP.*

   Response: Thank you for supporting the project.

Part B – SDEIS Comments

2. *Last year, City Council passed legislation moving our city towards a much needed transportation plan. Transportation is a vital component to our community's planning and also a universal concern for residents, businesses and visitors alike.*

   Response: We concur and appreciate you attending the public hearing an expressing your views regarding the BRT project.

3. *I would like to speak in favor of the SDEIS as released. The Supplemental Draft Environmental Impact Statement accurately reflecting a seven-month process I participated in my communities, Aiea and Pearl City. The Department of Transportation Services and the consultant should be recognized for their efforts to hear and assess the needs and concerns and also the working feasibility of the projects that were coordinated – incorporated in the Primary Corridor Transportation Project.*

   Response: Thank you.

4. *Our community, in particular, is very concerned about the proposed off-ramp and the location of the transit center at the Kamehameha Drive-In site. Through the Department of Transportation Services sponsored Working Groups, we were able to discuss those concerns, look at alternatives and the traffic flow through our communities, and agree on a workable solution that serves the communities, while still addressing the needs of the overall BRT program.*

   Response: As a result of the comments received on the DEIS and the working group meetings, the Kamehameha Drive-in site was dropped from further consideration. The working groups resulted in several project changes which were addressed in the SDEIS.

5. *The SDEIS replaces the Kaonohi Street and the Radford Drive ramps with the Luapele Drive ramp. The Aiea/Pearl City committee supported the deletion of the Kamehameha Drive-In site and the transportation center at the Kaonohi Street – with the Kaonohi Street on- and off-ramps.*

   Response: We appreciate your participation in the Pearl City/Aiea Working Group.

6. *We also supported the continued planning of two transit centers along the Kamehemeha Highway – along Kamehameha Highway to be linked with the Aloha Stadium transit center. The community businesses and DEIS discussed and supported the recommendations for shared buses and HOV contraflow lanes along Kamehameha Highway during peak traffic hours. The committee felt the selection of the proposed transportation center at the beginning of Kamehameha Highway town-bound, another midway through the Pearlridge area, complemented the proposed transportation center at Aloha Stadium. The proposed peak traffic and contraflow dedicated bus lanes would address the needs of our communities by enhancing inter-community transportation.*

   Response: These projects are being developed as separate projects.

7. *I feel it is important to protect the integrity of the community process that has been conducted over the past year. I know our communities were given ample opportunity to bring our concerns. That process, I would have hoped, would have been given to the other communities affected by the Draft EIS. The process, with the commitment made by those communities and the City to fashion a plan, a working document, I'm sure that could be modified by the time they're done with the implementation of BRT. I am proud of this sort of capacity building between government agencies and the communities that is essential if we are to move forward on any type of plan.*

   Response: There were five working groups that met between the time the DEIS was released and before the SDEIS was released for review and comment. The working groups suggestions and input resulted in the project changes the SDEIS addresses. A sixth working group was formulated in the Salt Lake area between the SDEIS and the FEIS being released.

8. *I'm going to go slightly off here. Because I'm a little confused at the purpose of this hearing. I thought that we were here to discuss comments on the SDEIS. I was encouraged to see so many people come out to testify, and I would like to encourage these people to continue with the process. It is important that you have come to share your thoughts. But it is also important that you hear the thoughts and the concerns of the other voters that have been involved in this process for over a year. I think it's only fair to them that you also work with them.*

   Response: You are right, the purpose of the April 20, 2002 public hearing was to hear comments on the BRT project, including the information presented in the MIS/DEIS and SDEIS.

9. *I know I'm supposed to summarize. So a little more. Because, you know, we talked about cost, additional cost. Cost is going to be there no matter what. I don't think you can get away from it. I think it makes sense to leverage what cost we have against federal monies to decrease the amount of hit that we, the taxpayers, take here.*

   Response: Comment noted.

10. *I think, on the outlying areas, one of the big things that you have to realize is we have a zipper lane. The zipper lane gridlocks in town. You need to solve the in-town problem first, or else we go nowhere.*

    Response: Comment noted.

11. *I just encourage you to continue to go forward, implement something, because we've been waiting for over 20 years.*

    Response: Thank you.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

Rose Ichi

Dillingham Bus Lanes
10-27-00

As a concerned businessman and fellow commuter, I feel that we should look at an alternative to the current plan of running the buses down the center of Dillingham. I have listed some of the reasons that I feel that this plan will not be effective and why it should be revised.

1) The current design calls for the removal of three lanes on Dillingham to make way for two bus lanes. The buses will stop for passengers about every quarter mile. Many of us feel that a quarter mile is too far for many bus riders. Since the buses have to stop at each traffic light and bus stop, this will not accomplish your needs of quicker travel time for the bus.

2) The removal of over fifty percent of the lanes on Dillingham and leaving only one town bound and one Ewa bound lane will cause major traffic congestion for King Street and Nimitz Highway. Should a traffic problem or construction work be needed on King Street or Nimitz Highway, Dillingham will not be able to handle the additional traffic flow and all commuters will suffer.

3) With the current plan of the bus stops in the center of the road, there may be more pedestrian accidents since no matter which direction you are traveling, you must cross a traffic lane to get to the bus stops. It will also cause a higher risk for accidents to bus riders since there will be traffic flowing on each side of the people who are waiting at the bus stops. The speed at which most vehicles travel down Dillingham must be looked at for pedestrian safety.

4) With only one town bound and one Ewa bound lane and the inability to make left turns into driveways and businesses, this will be a major disadvantage to the community and businesses. It will decrease productivity for businesses and result in revenue loss since many customers will avoid the area due to the major inconvenience. The needs of most commuters are concentrated in the few hours of the morning and a few hours in the afternoon but this bus line will be in place twenty four hours a day. It is a major commitment of dollars and inconvenience to the general public for just a few hours each day to accommodate the morning and afternoon commuters.

5) Before any construction is to begin, there should be an actual test using cones to create your bus lanes and leaving the one town and one Ewa lane to see how this will affect the other streets and the community. An actual physical test would be more convincing than a plan written on paper. Please do such a test before spending the projected $322,000.000 for this project.

Commuting Plan

Due to the lack of lanes coming from the H-1 viaduct on to Dillingham, we should look at Nimitz as a possible route for the express bus system. Currently Dillingham has only one lane to exit the H-1 and it is located in the center of all the others lanes. Even if there were two lanes created for an exit, you would still need to be in the center of the H-1 to exit.
Nimitz however has four lanes that exit the H-1, three from the right side and one from the left car pool lane. This seems like a better route to use for the express system.

Route 1) An express bus starts in Waianae and makes a few stops in Nanakuli, Makakilo, and Kapolei then on to the H-1 Zipper lane. After the Zipper lane ends the bus can stay in the car pool lane and exit H-1 from the left exit on to Nimitz. At some point on Nimitz, there should be a stop to drop off and pick up passengers. The next stop would be down town Honolulu and then on to the U.H. Since this first route 1 bus leaves Waianae at sometime around 5:00am or 5:30am, this bus can be used for a 7:00am or 7:30am run from the east side of Honolulu.

Route 2) An express bus starts in Wahiawa and makes a few stops in Mililani, Waipio then on to the Zipper lane. This bus will take the same route as route 1 bus stopping on Nimitz to pick up and drop off passengers. This bus will then stop in down town Honolulu and then on to Waikiki.

Route 3) An express bus starts in Ewa and makes a few stops in Waipahu, Waikele then on to the Zipper lane. This bus will use the same route as the others.

Some of the keys for this project to work will be the use of the Zipper and carpool lane, making fewer stops and changing the traffic lights for quicker flow into town.

Other things to consider would be to look at contraflow lanes on Dillingham, King and School St. as additional ways to get commuters to their destinations quicker. Adding more parking spaces at the U.H. and colleges and starting most of the classes after 9:00. This way students can leave there homes later without having to fight the current traffic with the rest of us. Most students are only in school form 8:00am till 2:00am, this will not create additional traffic in the afternoon since most of them will be out by 3:00pm..

These are only a few suggestions that we may want to look at before we invest and remove lanes from our roads. I realize that Ms. Soon's task of solving the traffic issues are great and I commend her for being open with us at trying to find a solution for all of us. I feel that finding better ways to use our roads at the times that we need it the most are the keys for better traffic.

Sincerely,
Calvin Tamaye
Calvin Tamaye

AR00016061

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
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GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00641

November 13, 2002

Mr. Calvin Tamaye
c/o Ace Auto Glass, Inc.
2250 Kamehameha Highway
Honolulu, Hawaii 96819

Dear Mr. Tamaye:

Subject: Primary Corridor Transportation Project

This is in response to your October 27, 2000 letter regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *As a concerned businessman and fellow commuter, I feel that we should look at an alternative to the current plan of running the buses down the center of Dillingham. I have listed some of the reasons that I feel that this plan will not be effective and why it should be revised.*

   Response: Comment noted. See responses to comments #7, #8, #9, #10, and #12.

2. *The current design calls for the removal of three lanes on Dillingham to make way for two bus lanes. The buses will stop for passengers about every quarter mile. Many of us feel that a quarter mile is too far for many bus riders. Since the buses have to stop at each traffic light and bus stop, this will not accomplish your needs of quicker travel time for the bus.*

   Response: The proposed project will re-designate two, not three, lanes on Dillingham Boulevard for exclusive BRT use. The center BRT stops will be supplemented by local bus service with more frequent curbside bus stops; bus riders can transfer between the BRT and local buses to more easily access the BRT without being forced to walk the longer distances between BRT stops.

3. *The removal of over fifty percent of the lanes on Dillingham and leaving only one town bound and one Ewa bound lane will cause major traffic congestion for King Street and Nimitz Highway. Should a traffic problem or construction work be needed on King Street or Nimitz Highway, Dillingham will not be able to handle the additional traffic flow and all commuters will suffer.*

   Response: As documented in Chapter 4 of the FEIS, there will be enough people diverted out of the cars onto public transit for Dillingham Boulevard to operate effectively with one general purpose lane in each direction, plus turn lanes at major intersections. Along half of the route, the general purpose lanes will be extra wide so that stopped and right-turning vehicles will not hold up traffic behind it. Along the other half, bus turnouts will be installed so that stopped buses do not block traffic.

   Because of the diversion of people from autos to transit, even with the BRT lanes, the traffic LOS along Dillingham Boulevard will be equal to or better than conditions with the No-Build Alternative. Additionally, traffic LOS on parallel streets such as N. King Street and Nimitz Highway will be equal to or in most cases better with the BRT lanes on Dillingham Boulevard than without them.

Moreover, the exclusive BRT lanes on Dillingham Boulevard will enable Dillingham Boulevard to carry 3 times the number of people that it can carry today

4. *With the current plan of the bus stops in the center of the road, there may be more pedestrian accidents since no matter which direction you are traveling, you must cross a traffic lane to get to the bus stops. It will also cause a higher risk for accidents to bus riders since there will be traffic flowing on each side of the people who are waiting at the bus stops. The speed at which most vehicles travel down Dillingham must be looked at for pedestrian safety.*

   Response: The conceptual design of transit stops located in the median includes features such as safety railings along the back of the platforms. The only vehicles using the lane along the front side of the platform will be BRT buses. Traffic signals and crosswalks will be provided at BRT stations to allow pedestrians to safely cross the street. Additionally, the median stops would require passengers to only cross half the street at a time when going to or from a bus stop.

5. *With only one town bound and one Ewa bound lane and the inability to make left turns into driveways and businesses, this will be a major disadvantage to the community and businesses. It will decrease productivity for businesses and result in revenue loss since many customers will avoid the area due to the major inconvenience. The needs of most commuters are concentrated in the few hours of the morning and a few hours in the afternoon but this bus line will be in place twenty four hours a day. It is a major commitment of dollars and inconvenience to the general public for just a few hours each day to accommodate and morning and afternoon commuters.*

   Response: The Refined LPA proposed reallocation of general-purpose lanes for transit is the only reasonable way to achieve greater person carrying capacity in the future. The Refined LPA Alternative will provide an attractive, dependable, affordable alternative to the private automobile.

   Along the BRT alignment through Kalihi on Dillingham Boulevard, are many retail establishments that serve the Kalihi Community. Participation from residents and business owners in the community has been actively sought throughout project planning. A Kalihi Working Group was established comprised of Kalihi businesses, elected officials, and representatives from civic organizations to provide input and feedback to the engineering team as they refined the details of the BRT project for the FEIS. A topic of discussion in the Kalihi Working Group was alternative access to area businesses and maintaining access to businesses during construction. Many refinements were made to the project to accommodate concerns raised. The resultant plan will permit access to all properties fronting Dillingham Boulevard through various means. First off, no driveways will be closed, so there will continue to be access via right-turns in and right-turns out of these driveways. For vehicles traveling along the opposite side of the street, access will be provided via a left-turn or a U-turn at intersections. Additionally, Colburn Street and portions of Keumualii Street will be improved to provide alternative access to those businesses that have access from both Dillingham Boulevard and these secondary streets.

   To minimize the amount of widening required, the physical design of the BRT lanes involves jogs to permit left-turn lanes and median platforms. These jogs will not safely permit use of the lanes by motorists during off-peak hours.

6. *Before any construction is to begin, there should be an actual test using cones to create your bus lanes and leaving the one town and one Ewa lane to see how this will affect the other streets and the community. An actual physical test would be more convincing than a plan written on paper. Please do such a test before spending the projected $322,000,000 for this project.*

Response: The proposed BRT system is based on ridership experience of the City's existing bus services, including the recently implemented express bus services that use much of the proposed BRT alignment, forecasts of BRT and local bus ridership using regional travel forecasting models, and input received at hundreds of public outreach meetings. A test without all features of the BRT system in place (i.e., limited stop operations in exclusive and semi-exclusive lanes using low-floor vehicles with level boarding through multiple doors, and prepayment of fares) would be misleading and not a true test of the system. For example, the project proposes to completely reconstruct Dillingham Boulevard through the Kalihi area to provide significant pedestrian amenities to facilitate access to BRT stations, as well as building new BRT stations and exclusive lanes in the center of the roadway. Without such major reconstruction, it would not be possible to provide the substantial time savings for transit riders through this corridor that would be offered by the BRT. Most importantly, potential new riders would not likely perceive the demonstration service as permanent and would not be induced to change their travel mode.

7. *Due to the lack of lanes coming from the H-1 viaduct on to Dillinghem, we should look at Nimitz as a possible route for the express bus system. Currently Dillingham has only one lane to exit the H-1 and it is located in the center of all the others lanes. Even if there were two lanes created for an exit, you would still need to be in the center of the H-1 to exit. Nimitz however has four lanes that exit the H-1, three from the right side and one from the left car pool lane. This seems like a better route to use for the express system.*

   Response: Since Dillingham Boulevard is a preferable route to Nimitz Highway for serving Kalihi residents and businesses, the H-1 Regional BRT buses will exit onto Middle Street to serve the Middle Street Transit center. After dropping-off and picking-up passengers at the transit center, express buses would exit onto Kamehameha Highway (Dillingham Boulevard) and continue into town using the BRT lane on Dillingham Boulevard.

8. *Route 1) An express bus starts in Waianae and makes a few stops in Nanakuli, Makakilo, and Kapolei then on to the H-1 Zipper lane. After the Zipper lane ands the bus can stay in the car pool lane and exit H-1 from the left exit on to Nimitz. At some point on Nimitz, there should be a stop to drop off and pick up passengers. The next stop would be downtown Honolulu and then on to the UH. Since this first route 1 bus leaves Waianae at sometime around 5 or 5:30 a.m., this bus can be used for a 7 or 7:30 a.m. run from the east side of Honolulu.*

   Response: There is an express route in the Refined LPA similar to what is suggested, except that it would take advantage of the Middle Street ramp and the Dillingham Boulevard exclusive lanes rather than using Nimitz Highway.

9. *Route 2) An express bus starts in Wahiawa and makes a few stops in Mililani, Waipio then on to the Zipper lane. This bus will take the same route as route 1 bus stopping on Nimitz to pick up and drop off passengers. This bus will then stop in downtown Honolulu and then onto Waikiki.*

   Response: There is an express route in the Refined LPA similar to what is suggested, except that it would take advantage of the Middle Street ramp and the Dillingham Boulevard BRT lanes rather than using Nimitz Highway. It would also benefit from the proposed direct connector ramp at the Waiawa interchange that would permit buses to go directly from the p.m. zipper lane into the H-2 mauka bound HOV lane.

10. *Route 3) An express bus starts in Ewa and makes a few stops in Waipahu, Waikala then onto the Zipper lane. This bus will use the same route as the others.*

    Response: There is a route in the Refined LPA similar to what is suggested, with the routing via Dillingham Boulevard instead.

11. *Some of the keys for this project to work will be the use of the Zipper and carpool lane, making fewer stops and changing the traffic lights for quicker flow into town.*

    Response: The Refined LPA would create an H-1 BRT Corridor consisting of new express and zipper lanes, allowing express buses from Ewa and Central Oahu to bypass peak period traffic congestion on their way to downtown. Traffic signals would be synchronized and programmed to provide priority to the transit lanes at selected intersections.

12. *Other things to consider would be to look for contreflow-lanes on Dillingham, King and School St. as additional ways to get commuters to their destinations quicker.*

    Response: The Hawaii DOT has proposed an A.M. peak period contra-flow lane on Nimitz Highway. As far as Dillingham Boulevard, a contra-flow BRT operation was analyzed and rejected due to: 1) the restrictions on left turns and U-turns during peak periods, 2) added operating costs of having to place and pick-up traffic cones twice a day, 3) safety hazard of island BRT boarding platforms that become obstacles that have to be maneuvered around when the contra-flow lanes are not in operation, and 4) loss of benefit to BRT vehicles operating in the reverse direction when the contra-flow lane is in operation. Contraflow lanes on Nimitz Highway, Dillingham Boulevard, and King Street are not possible during the P.M. peak period since there is not the same imbalance in the direction of travel that exists in the A.M. peak.

13. *Adding more parking spaces at the UH and colleges and starting most of the classes after 9:00. This way students can leave their homes later without having to fight the current traffic with the rest of us. Most students are only in school from 8 a.m. to 2 e.m. (sic), this will not create additional traffic in the afternoon since most of them will be out by 3 p.m.*

    Response: Adjusting hours such as that proposed is consistent with the travel demand management goals of the Oahu Regional Transportation Plan. Adding parking is not. Providing an improved transit alternative such as the Refined LPA would be preferable.

14. *These are only a few suggestions that we may want to look at before we invest and remove lanes from our roads.*

    Response: Comment noted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00642

November 13, 2002

Mr. Kalsuml Tanaka
1141 Walmanu Street, #105
Honolulu, Hawaii 96814

Dear Mr. Tanaka:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I would like to discuss or present in terms of public policy – Number one, what is the state of affairs on the financial reality of today when deliberating projects that will cost more money?*

   Response: Comment noted. It is the City Council's responsibility to define public policy and determine the City's ability to finance all the city's projects. The Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS), SDEIS, and Final Environmental Impact Statement (FEIS), Chapter 6 discuss the Primary Transportation Corridor Project's financial feasibility.

2. *Number two, the sources for running the project are largely from federal funds and local taxes. Therefore, public policy deliberations should ask, for whose benefit predominantly? What should be the priorities?*

   Response: All of the alternatives analyzed are focused on serving residents of Oahu with priority on those who live and/or work in the Primary Transportation Corridor.

3. *Who should pay and how should it be paid? Moreover, what happens if it didn't work?*

   Response: The financial plan indicates the proposed funding sources.

4. *Let me illustrate several examples of what I think should be deliberated upon. The City has many parks that are not used or never been used. Swimming pools that exist that are not used. Libraries. Public transportation should be predominantly for the benefit of local residents. Public transportation should connect them. Teenagers, elderly citizens, could be transported from parks to their homes, to swimming pools, libraries, health care centers.*

   Response: We concur and the BRT project is one component in Oahu's transportation system that will allow residents, if they so desire, to access parks, swimming pools, their homes, jobs, etc.

5. *Then the issue is, where on Oahu first? Kalakaua Avenue? On Kalakaua Avenue, 21 hours out of 24? Frequency of four minutes to six minutes? Who are likely to be the riders. Of course local residents. But many, many tourists. Did they pay for the taxes?*

   Response: As is the case in all U.S. cities tourists in Honolulu are permitted to use the public transit system along with residents.

6. *What about the children in Waianae? What about the elderly who are strapped to the radius of about a hundred yards once the only sedan leaves the household? How about, instead of against, be for, for the persons who are – who should be the beneficiaries of public transportation.*

   Response: The Refined LPA includes improved transit service to Waianae.

7. *Why not connect, why not run, why not give them the best instead of giving the best on Kalakaua Avenue?*

   Response: The majority of jobs in Waikiki occur near Kalakaua Avenue. The Refined LPA will provide a much faster connection for Waikiki workers who live in Waianae.

8. *Isn't it the obligation, when deliberating, that the taxpayers and the electorate are to become the intended beneficiaries?*

   Response: The proposed BRT project will give all residents an option to driving their cars for trips.

9. *Moreover, we are talking about scarce resources.*

   Response: Comment noted.

10. *Moreover, the argument should not be, if you are against BRT, you are against public transportation. I, for one believe that there should be much, much, much more public transportation for local residents. And instead of forcing motorists out of their cars, let's first satisfy those who don't have transportation. They ought to be addressed first before any sorts of engineering to force those who already have means of transportation out into tax-subsidized programs.*

    Response: The Refined LPA is designed to serve those dependent on public transportation as well as attract those who have a choice of modes. There is no attempt to force anyone to use public transportation. To the contrary, the focus is on providing a better more attractive transit system than what is available today so that motorists voluntarily choose to use it.

We will send you a CD-ROM copy of the FEIS under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

MAY, 8 2002

May 5, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 King St., 3rd Floor
Suite 702
Honolulu, Hi #96813

Dear Ms. Soon,

At the urging of friends I attended the meeting you arranged at the Convention Center ; otherwise I would have been totally unaware that a new transportation system was being planned. I think there should have been more notice to the neighborhoods about this proposal, I have not heard anything like this since the light rail proposal. I have lived here in Waikiki for 25 years and use the current bus system from time to time and find it very dependable in the Waikiki area.

I don't have knowledge of the traffic difficulties in the outer areas of Hawaii But I do feel that within the Waikiki area you are trying to institute something that IS NOT NEEDED. Your plan to limit certain lanes for BRT only will cause the traffic to be worse, not better. Within Waikiki our current bus system is working well and we need those streets that you want to take away for our Taxi our service vehicles, special transportation vehicles, and private cars.

Ninety percent of the people in Waikiki have a need for private vehicles, taxi, vehicles that transport tourists, and service vehicles, they must be able to use the streets and DO NOT need further congestion that would be caused by losing necessary lanes. The current bus system is adequate for the other 10% and for myself.

If you want the Federal money and you are certain that the project will not cause an increase of property taxes then use the money where it would be most beneficial; transport people from the outer areas to connect with our city buses. It appears to me that you want to force all people to use the new BRT system even though it will not benefit the majority of the people.

Sincerely,

Lila Tarsey

Lila Tarsey
Ala Moana Blvd
tlila2000@aol.com

copy to: Ms.Genevieve Salmonson, Director Enviornmental Quality
Ms. Donna Turchie, Senior Transportation Representative (FTA)
dbunda@co.honolulu.hi.us
holmes@co.honolulu.hi.us
felix@pixi.com
hainum@co.honolulu.hi.us
akobayashi@co.honolulu.hi.us
rcachola@co.honolulu.hi.us

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01839R

November 13, 2002

Ms. Lila Tarsey
P. O. Box 75223
Honolulu, Hawaii 96836

Dear Ms. Tersey:

Subject: Primary Corridor Transportation Project

This is in responds to your comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *At the urging of friends I attended the meeting you arranged at the Convention Center; otherwise I would have been totally unaware that a new transportation system was being planned. I think there should have been more notice to the neighborhoods about this proposal. I have not heard anything like this since the light rail proposal. I have lived here in Waikiki for 25 years and use the current bus system from time to time and find it very dependable in the Waikiki area.*

   Response: We appreciate you taking the time to comment about the project. The project team has attended numerous Waikiki Neighborhood Board meetings to discuss the project. Also, a Waikiki Neighborhood Board member participated in the Waikiki working group meetings. There have been several articles in the local papers and stories on the local radio and television programs regarding the proposed BRT project.

2. *I don't have knowledge of the traffic difficulties in the outer areas of Hawaii But I do feel that within the Waikiki area you are trying to institute something that IS NOT NEEDED. Your plan to limit certain lanes for BRT only will cause the traffic to be worse, not better. Within Waikiki our current bus system is working well and we need those streets that you want to take away for our Texi our service vehicles, special transportation vehicles, and private cars.*

   Response: New lanes will be added in parts of Waikiki (Ala Moana Boulevard and Kalia Road) not taken away. Along these streets and the other streets where the In-Town BRT is opereting in priority lanes, private buses will be sharing these lanes.

3. *Ninety percent of the people in Waikiki have a need for private vehicles, texi, vehicles that transport tourists, and service vehicles, they must be able to use the streets and DO NOT need further congestion that would be caused by losing necessary lanes. The current bus system is adequate for the other 10% and for myself.*

   Response: See response to comment # 2.

4. *If you want the Federal money and you are certain that the project will not cause an increase of property taxes then use the money where it would be most beneficial; transport people from the outer areas to connect with our city buses.*

   Response: The Refined LPA will transport people from the outlying areas to-and-from town.

5. *It appears to me that you want to force all people to use the new BRT system even though it will not benefit the majority of the people.*

   Response: No one will be forced to ride the BRT system. It will provide residents with another transportation option.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00642

November 13, 2002

Ms. Patty Teruya
P. O. Box 2308
Walanae, Hawaii 96792

Dear Ms. Teruya:

Subject: Primary Corridor Transportation Project

This is in response to the comment you made on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

Your testimony at the November 14, 2000 Special Transportation Committee Meeting supported the In-Town BRT as the Locally Preferred Alternative (LPA). Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: Babe Thomas
Representing: myself
Address:

Please make any comments below:

1- There is no room for more buses. it will only create more congestion

2- We dont only ~~ride~~ ~~to~~ go on a Joy ride with our cars. We also carry things for Work, Kids, grocery ~~and much more~~

Bus is not the answer

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00643

November 13, 2002

Ms. Baki Thomas
1860 Ala Moana Boulevard, #2304
Honolulu, Hawaii 96815-1640

Dear Ms. Thomas:

Subject: Primary Corridor Transportation Project

This is in response to your comment form regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *There is no room for more buses, it will only create more congestion.*

   Response: Chapter 4 of the FEIS fully discusses the consequences of converting selected general purpose lanes to priority use by transit vehicles.

   When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

2. *We don't only go on a joy ride with our cars, we also carry things for work, kids, groceries. Bus is not the answer.*

   Response: Comment noted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: Robert Thomas

Representing:

Address: 1860 Ala Moana Blvd. 1106

Please make any comments below:

This plan is pure disaster for residents in this area and Honolulu as a whole. Talk of alternate travel lanes as substitute is bull.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00644

November 13, 2002

Mr. Robert Thomas
1860 Ala Moana Boulevard, #1106
Honolulu, Hawaii 96815

Dear Mr. Thomas:

Subject: Primary Corridor Transportation Project

This is in response to your comment form regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

This plan is pure disaster for residents in this area and Honolulu as a whole. Talk of alternative travel lanes as substitute is bull.

Response: Comment noted. No response is required.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00645

November 13, 2002

Mr. Steve Tierney
1550 Wilder Avenue, #1010
Honolulu, Hawaii 96822

Dear Mr. Tierney:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the October 12, 2000 Public Hearing regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *Whichever method is chosen, whether it's the No-Build or the TSM or BRT, I really would like to see quieter buses. When you're sitting at a bus stop and a bus comes up and it passes on, it makes a lot of noise. If you live close to a bus route, that noise wakes you up in the morning. So whatever, quieter buses would be really appreciated.*

   Response: Both vehicle technologies under consideration, embedded-plate and hybrid electric, would be substantially quieter than the existing diesel buses.

2. *Another thing that would be good would be a periodic shoppers bus designed especially to accommodate shoppers with shopping carts. Maybe every third or fourth bus on that line could be especially designed to accommodate this. Right now, large baggage can't be carried on the current buses.*

   Response: Duly noted, however no change in current policy regarding shopping carts is presently proposed.

3. *Something else that would be useful would be restrooms in the hubs. I know Kalihi Transit Center has that, but some of the hubs don't. I don't know if people are considering Punchbowl and King or Punchbowl and Beretania as a hub, but I think it is. It would be nice if there were public restrooms there.*

Response: Restrooms and other amenities are planned to be installed at many of the transit centers.

4. *Also, a very good thing to have would be at the bus stops, especially the frequently used ones where overlapping lines occur, would be a waiting time indicator for the bus that's coming and how many minutes it would be before it gets there. This can be done pretty easily, I think, with global positioning on each bus, or some kind of system on each bus, Star, especially heavily used ones.*

   Response: As part of the Refined LPA, information on the arrival time of the next bus would be available at transit centers and major BRT stops.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

September 25, 2000

Duke Bainum
Chair, Transportation Committee
City & County of Honolulu

RECEIVED
Sep 26 9 28 AM
CITY CLERK
HONOLULU, HAWAII

Re: Primary Corridor Transportation Project
Major Investment Study/Draft EIS

Chair Bainum, Committee Members:

Welcome to Kapolei and thank you for this meeting on a very important matter to our community - Transportation.

My name is Maeda Timson. I am Chair our Kapolei Neighborhood Board, and have been active with the Hub and Spoke Project and other Transportation matters such as the WikiWiki Ferry and Express Bus. I also must commute into town and back every day during peak and non-peak hours. I have also spoke to numerous bus and car riders from Makakilo, Honokai Hale, Villages of Kapolei, and Ewa Villages.

I would like to comment on what I feel is the best-proposed alternative based on my personal experience and that of other community members.

The BRT alternative is best suited for our community. Because of our diverse and growing population in the City of Kapolei this method offers fast, efficient, dependable service which is also environmentally friendly preserving our open spaces and the beauty of Leeward Oahu. We have students, retirees, working people and tourist who frequent The Bus to and from the Leeward Coast and Ewa Plains as well as these same groups of people who must use their automobiles. By using this method to improve public transportation, community can leave their cars at home, save money on gas and save their sanity and lower their stress level of driving in traffic! It will also expand new friendships that otherwise would not happen.

Please support the Bus Rapid Transit alternative.

Sincerely,

Maeda Timson

Maeda C. Timson. 92-684 Nohona St., Kapolei, Hi. 96707, Ph # 672-9414; Chair, Makakilo/Kapolei/Honokai Hale Neighborhood Board; Vice Chair, Barbers Point Redevelopment Commission; Program Chair, Girl Scouts of Hawaii; Member, Makakilo Elementary SCBM; Member, Campbell Industrial Park Air Quality Task Force; Vice Chair, Campbell Industrial Park 's Community Participation Committee of CLEAN

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00646

November 13, 2002

Ms. Maeda Timson
92-684 Nohona Street
Kapolei, Hawaii 96707

Dear Ms. Timson:

Subject: Primary Corridor Transportation Project

This is in response to your September 25, 2000 letter which provided your comment on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

The BRT is best suited for our community. Because of our diverse and growing population in the City of Kapolei this method offers fast, efficient, dependable service which is also environmental friendly preserving our open spaces and the beauty of Leeward Oahu"

Response: Thank you for supporting the project.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

RECEIVED
Oct 4 7 32 AM '00
CITY CLERK
HONOLULU, HAWAII

October 3, 2000

MEMO

To: City Clerk

From: Howard Tocman,
Lelepono #808, 98-099 Uao Place, Aiea

Re: Community Meeting on 10/19/00 @ 6:30 p.m.

As a homeowner across the street from the proposed site I would like to register my dissatisfaction with the idea of creating a bus terminal or turnaround right outside my bedroom window. It is bad enough we have to be disturbed by the 5:30 a.m. noise of the swap meet on Wednesday, Saturday & Sunday. Now we will have extra noise everyday.

What happened to the idea of creating a much needed park for the many youth and families in the area ? That was an idea with true merit that deserves to be put forward.

If the City & County has the money to acquire this parcel and build a bus terminal then it could easily afford to turn it into the much needed park instead. This is not a matter of "not in my back yard" but rather having government give us what we really need.....a park !

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00647

November 13, 2002

Mr. Howard Tocman
98-099 Uao Place, #808
Alea, Hawaii 96701

Dear Mr. Tocman:

Subject: Primary Corridor Transportation Project

This is in response to your October 3, 2000 memo regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *As a homeowner across the street from the proposed site I would like to register my dissatisfaction with the idea of creating a bus terminal or turnaround right outside my bedroom window. It is bad enough we have to be disturbed by the 5:30 a.m. noise of the swap meet on Wednesday, Saturday & Sunday. Now we will have extra noise everyday.*

   Response: The former Kamehameha Drive-In is no longer being considered for a transit center site.

2. *What happened to the idea of creating a much needed park for the many youth and families in the area? That was an idea with true merit that deserves to be put forward. If the City & County has the money to acquire this parcel and build a bus terminal then it could easily afford to turn it into the much needed park instead. This is not a matter of "not in my back yard" but rather having government give us what we really need...a park!*

   Response: The former Kamehameha Drive-In is no longer being considered for a transit center.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

APR 2 0 2002

April 20, 2002

Ms. Cheryl Soon, Director
Department of Transportation
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Testimony in Support of the Bus Rapid Transit System

The City and County of Honolulu desperately needs a modern, efficient public transportation system. The daily grid lock on our highways and roads is getting worse every year.

I am aware of other Cities, such as Portland, Oregon where a well planned rapid transit system was a cornerstone for redevelopment and economic revitalization in the City. It was also used in the land use planning for future growth in the Portland metropolitan area.

Efficient transportation systems for moving people and commerce has been sorely needed in our city for some time now. The City's Bus Rapid Transit System provides people with a realistic commuting alternative that will reduce travel time. Also, as in the case of Portland, I expect that BRT will provide new business opportunities in redevelopment area.

I am in support of the continued work and development of the Bus Rapid Transit System for the City and County of Honolulu.

Thank you for providing me an opportunity to testify.

Dean Uchida

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00648

November 13, 2002

Mr. Dean Uchida
98-1762 Kupukupu Street
Aiea, Hawaii 96701

Dear Mr. Uchida:

Subject: Primary Corridor Transportation Project

This is in response to your comment form regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *The City and County of Honolulu desperately needs a modern, efficient public transportation system. The daily grid lock on our highways is getting worse every year.*

   Response: We appreciate you expressing your views regarding public transportation.

2. *I am aware of other cities, such as Portland, Oregon where a well planned rapid transit system was a cornerstone for redevelopment and economic revitalization in the City. It was also used in the land use planning for future growth in the Portland metropolitan area.*

   Response: We concur that Portland has had great success with their transit system and that system has helped economic development and redevelopment.

3. *Efficient transportation systems for moving people and commerce has been sorely needed in our city for some time now. The City's Bus Rapid Transit System provides people with a realistic commuting alternative that will reduce travel time. Also, as in the case of Portland, I expect that BRT will provide new business opportunities in redevelopment area*

   Response: These are consistent with findings in the FEIS.

4. *I am in support of the continued work and development of the Bus Rapid Transit System for the City and County of Honolulu.*

   Response: Thank you for supporting the BRT project and for sharing your views.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00649

November 13, 2002

Mr. Jon von Kessel
c/o Government Efficiency Teams
1645 Ala Wai Boulevard, Apt. 1304
Honolulu, Hawaii 96815

Dear Mr. von Kessel:

Subject: Primary Corridor Transportation Project (PCTP)

This is in response to your testimony at the October 5, 2000 Special Transportation Committee Meeting regarding comments on the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

1. *So, this then brings us to the next point of when we have fixed guideways on certain routes such as the A, B and C bus routes. We end up having a severe problem when those do not intersect with other transit routes. Perfect example is the A route crossing Kalakaua and Kapiolani. You still have to walk another two and a half blocks to come back to catch the bus to go the other way. So, that is an alignment of bus stops that must be done. And that is very relevant to what you're proposing. Whether it's accepted or not, it has to do with all transportation.*

   Response: All existing bus routes will be evaluated for re-routing to intersect with the BRT at or near the proposed BRT stops. The In-Town BRT is only one element of the transit plan for the Primary Urban Center. The plan also includes conversion of the bus system to a hub-and –spoke network which will consist of new local circulator routes, as well as continuation of many existing line haul and express routes. The goal is to have an integrated network of transit services that provide convenient and cost-effective options for potential users.

2. *The BRT is being proposed as a quasi-rail system. You have dedicated space with dedicated hardware infrastructure that is for the purpose which is quasily the same as a rail system. Whereas a full rail system obviously is going to restrict any use by other activities. So, that must be considered. So, then with the closing summary is if in fact one has to walk more than three or four blocks they're not going to use whatever transportation services are available particularly if they've got groceries or whatever in their arms. So, having things dedicated onto streets that are not conductive of the other transportation mixes then we're looking for doom.*

Response: In-Town BRT stop spacing is between ¼- and ½-mile apart. This is typical for a high capacity, limited stop service. It offers a balance of faster speeds with convenience to destinations acceptable to most passengers. To serve passengers who may find the stop spacing too far apart there will be interconnecting local bus service and circulator routes to which they can transfer for completing their journeys.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

May 3, 2002

Lea Sasak Watts
1777 Ala Moana #1810
Honolulu, Hi 96815

MAY - 8 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
Ctrl. City and County of Honolulu
650 King St., 3rd Floor
Suite 702
Honolulu, Hi #96813

Dear Ms. Soon,

I attended the recent meeting at the Convention Center where plans were displayed by Transportation Services to show the proposed Bus Rapid Transit route.

I have had an apartment on Ala Moana Blvd since 1975 and I do not own a car; so I depend on The Bus and taxies for my transportation. My experience with the current bus system has been good within the Waikiki area; and find they are on time and offer a good schedule.

I have studied your plans and believe that your plan to take away two lanes on Ala Moana Blvd and Kalakaua for strickly BRT use will be disastrous.
I consistently travel these two streets by bus and by taxi, and not enough space exists to dedicate two lanes to the new BRT without causing complete gridlock.

Tourist arrive in Waikiki by taxi and special transportation vehicles from the airport using the Nimitz to Ala Moana Blvd to Kalakaua.
The new BRT that you are planning will never be the answer to their needs; yet they and the people who provide their transportation are the most consistent users of these particular streets. Hawaii's business is tourism, and the BRT added to the downtown Honolulu or Waikiki will not be encouraging to that business. In fact if you try to force everyone onto the bus Honolulu will lose the reason it exists, it will lose its tourists. Even now we are losing tourist because we are overbuilt.

We must continue to keep the beaches beautiful and unobstructed, we need more trees and greenery, and as much open space as we possibly can get to present a beautiful area to which our tourist will want to return. I understand your plan provides for removing the trees and greenery from the middle of Ala Moana Blvd and also other streets to provide extra space for this new BRT., that would be a mistake, we need to keep every inch of beauty that we have, that is the basis of our business here in Hawaii. Again our current bus system is working

well in Waikiki, why not just improve it where needed? Maybe you need to build a BRT system to help people from outlying areas to reach Honolulu and Waikiki to connect with our current bus system; why don't you concentrate on that possibility.

Sincerely,

Lea Watts

Lea Sasak Watts

Copies: Ms.Genevieve Salmonson, Director Office of Enviornmental Quality
Ms. Donna Turchie, Senior Transportation Representative (FTA)

E-mails dbunda@co.honolulu.hi.us
holmes@co.honolulu.hi.us
felix@pixi.com
bainum@co.honolulu.hi.us
akobayashi@co.honolulu.hi.us
rcachola@co.honolulu.hi.us
gokinno@co.honolulu.hi.us

DEPARTMENT OF TRANSPORTATION SERVICES

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD5/02-01838R

November 13, 2002

Ms. Lea Sasak Watts
1777 Ala Moana Boulevard, #1810
Honolulu, Hawaii 96815

Dear Ms. Watts:

Subject: Primary Corridor Transportation Project

This is in response to your May 3, 2002 letter regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I attended the recent meeting at the Convention Center where plans were displayed by Transportation Services to show the proposed Bus Rapid Transit route.*

   Response: Comment noted. We assume that you are referring to the SDEIS April 20, 2002 Public Hearing held at the Convention Center.

2. *I have had an apartment on Ala Moana Blvd. since 1975 and I do not own a car; so I depend on TheBus and taxis for my transportation. My experience with the current bus system has been good within the Waikiki area; and find they are on time and offer a good schedule.*

   Response: Comment noted.

3. *I have studied your plans and believe that your plan to take away two lanes on Ala Moana Blvd. and Kalakaua for strictly BRT use will be disastrous. I consistently travel these two streets by bus and by taxi, and not enough space exists to dedicate two lanes to the new BRT without causing complete gridlock.*

   Response: No lanes will be taken away on Ala Moana Boulevard in Waikiki, in fact lanes will be added. Through re-striping and narrowing of the median an additional lane in each direction for priority use by buses and right-turning vehicles will be added. One lane on the section of Kalakaua Avenue between Saratoga Road and Uluniu Avenue will be converted for shared use by BRT buses, private buses and right-turning autos.

4. *Tourist arrive in Waikiki by taxi and special transportation vehicles from the airport using the Nimitz to Ala Moana Blvd. to Kalakaua. The new BRT that you are planning will never be the answer to their needs; yet they and the people who provide their*

transportation are the most consistent users of these particular streets. Hawaii's business is tourism, and the BRT added to the downtown Honolulu or Waikiki will not be encouraging to that business. In fact if you try to force everyone onto the bus Honolulu will lose the reason it exists, it will lose its tourists. Even now we are losing tourists because we are overbuilt.

Response: Private buses and mini-buses that transport tourists to-and-from the Airport will be able to use the BRT lanes in Waikiki. The BRT will not be competing with these private services since it will not serve the Airport.

5. *We must continue to keep the beaches beautiful and unobstructed, we need more trees and greenery, and as much open space as we possibly can get to present a beautiful area to which our tourist will want to return. I understand your plan provides for removing the trees and greenery from the middle of Ala Moana Blvd. and also other streets to provide extra space for this new BRT., that would be a mistake, we need to keep every inch of beauty that we have, that is the basis of our business here in Hawaii.*

   Response: The landscaped median on Ala Moana Boulevard will remain. However in some locations the median will be narrowed and new trees planted to replace any that are removed.

6. *Again our current bus system is working well in Waikiki, why not just improve it where needed?*

   Response: Waikiki is one of the densest residential and employment sites on the island. Connecting it to other parts of the island by the In-Town BRT will help reduce the number of autos and buses circulating in Waikiki.

7. *Maybe you need to build a BRT system to help people from outlying areas to reach Honolulu and Waikiki to connect with our current bus system; why don't you concentrate on that possibility.*

   Response: See response to comment # 6.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: LaVonne West
Representing:
Address: 1 Likai 1310

Please make any comments below:

cone off Waikiki area
For weeks before its
a Final

TPD4/02-1631

APR 25 2002

LaVonne West

4-23-02

Ms. Soon,

Please, please Try before you all buy, especially in Waikiki BRT. May I suggest (strongly) That barricades starting at Hobron & Ala Moana be installed For The route B.R.T. will Take Thru all Waikiki For 30 days. Try it!

Last Sat. The 20th it Took me 3 signals To get Thru The Hobron/Ala Moana because of an arthritis walk - 1 Lane coned.

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD4/02-01631R

November 13, 2002

Ms. LaVonne West
1777 Ala Moana Boulevard
Honolulu, Hawaii 96815-1606

Dear Ms. West:

Subject: Primary Corridor Transportation Project

This is in response to your comment form and April 23, 2002 letter regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *Cone off Waikiki area for weeks before it's a final.*

   Response: A test of closing a lane is not a test of what will happen with the Bus Rapid Transit (BRT), it is only a test of what happens when a lane is closed which is something everyone knows the consequence of from when lanes are temporarily closed during utility construction.

   As is pointed out in Chapter 4 of the Final Environmental Impact Statement (FEIS), over time there will be enough people diverted from autos to transit to offset the impact of converting lanes for priority use by buses. This diversion from autos will only happen once it is clear that the BRT installation is a permanent improvement, not part of some test.

   What is proposed with the first In-Town BRT branch between Iwilei and Waikiki will be a good test of the ability of BRT to attract new riders and the impacts of converting lanes in selected locations.

2. *I would like to see the implementation of cones in Waikiki, have it all coned off, and cone it for a month before you put the buses in and do anything else.*

   Response: See response to comment # 1.

3. *Please, please <u>try</u> before you all buy, espacially in Waikiki BRT. May I suggest (strongly) that barricades starting at Hobron and Ala Moana be installed for the route BRT will take thru all Waikiki, for 30 days. "Try."*

   <u>Response</u>: See response to comment # 1.

4. *Last Saturday the 20th it took me 3 signals to get through the Hobron / Ala Moana because of an arthritis walk – 1 lane coned.*

   <u>Response</u>: Comment noted. No response required.

We will send you a CD-ROM copy of the FEIS under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

PRIMARY CORRIDOR TRANSPORTATION PROJECT

Island of Oahu, Hawaii

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

The information you provide on this form will help the City & County of Honolulu and the Federal Transit Administration in the future planning of the Primary Corridor Transportation Project. We appreciate any comment you may have. Comments must be postmarked or received by May 7, 2002.

Name: Dan Matthews

Representing:

Address: 1717 Ala Wai Blvd, #1904
Honolulu, HI 96815-1504

943-4196

Please make any comments below:

How come the city hasn't tried to ease our traffic congestion by retiming our traffic lights, such as they are on the Ala Wai?

Ex. Beretania Blvd., between Kapiolani & Beretania. Sometimes it takes over 20 mins to go just 7 to 9 blocks. Why can't the lights be timed so the traffic moves more smoothly?

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00650

November 13, 2002

Mr. Don Withrow
1717 Ala Wai Boulevard, #1904
Honolulu, Hawaii 96815-1504

Dear Mr. Withrow:

Subject: Primary Corridor Transportation Project

This is in response to your comment form regarding the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *How come the city hasn't tried to ease our traffic congestion by refining our traffic lights, such as they are on the Ala Wai?*

   Response: The City has a state of the art traffic management center. It also has an ongoing traffic signal optimization program. Given the large number of traffic signals in Honolulu, it will take time to optimize all of the signals, but the process has been initiated and the public will see the benefits from this program in the near future.

2. *Ex. Keeaumuku Blvd. between Kapiolani and Beretania. Sometimes it takes over 20 minutes to go just 7 to 9 blocks. Why can't the lights be timed so the traffic moves more smoothly?*

   Response: See response to comment #1.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00654

November 13, 2002

Mr. Greg Wonghan
2333 Kapiolani Boulevard, #3416
Honolulu, Hawaii 96826-4479

Dear Mr. Wonghan:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I'm opposed to the BRT for the simple reason that many of the areas that you have on plan for development of the BRT will create a lot more congestion.*

   Response: Chapter 4 of the FEIS fully discusses the consequences of converting selected general purpose lanes to priority use by transit vehicles.

   When people are diverted onto public transit, congestion for motorists will be less with the Refined LPA than it would be with the No-Build or TSM Alternatives. Conditions will be much better for BRT riders with the Refined LPA since they will have a path clear of the congestion along much of the In-Town and Regional BRT routes.

2. *I'm particularly concerned about the area in Waikiki as the BRT enters into Waikiki through Ala Moana. As many people who know that live in that area, not only today, but in the past, realize that this is one of the most heavily occupied areas, residential and otherwise, in the whole state of Hawaii. And to bring BRT into that particular neighborhood flies in the face of reason.*

   Response: By narrowing the lane widths and reducing the median somewhat, it will be possible with the Refined LPA to add two semi-exclusive curb lanes on Ala Moana Boulevard while still maintaining the same number of general purpose traffic lanes.

3. *And I think what everybody should realize is that what the State is doing and the County is doing is moving very aggressively into the process of privatizing. I think a lot of us, when we think about and hear the term "privatization," we think of smaller government, we think of less costly government. But in this particular case, I think, in recent history, the way politics have moved in the state of Hawaii, we realize that privatization means paying off people on the inside, and it goes against the common good of the public.*

   Response: Comment noted. No response required. This is a statement regarding privatization and payoffs, which are beyond the project scope.

4. *The cost of this edifice here wes three hundred end fifty some odd million. Over the next 20 years, the cost of floating bonds and so forth, with interest, will be in excess of one billion dollars. So we're talking about epproximetely three times tha cost. If you're talking about 1.6 billion for the BRT, we're looking at three to four billion dollers. And as meny of us know, with this economy, we're having a real tough time satisfying the debt thet's creeted by these bonds.*

   Response: The amount to be paid for with City GO Bonds is $359.5 million, not $1.6 billion.

5. *What a lot of people don't know, that every three years, the State of Hawaii basically experiences a spike with respect to the payment of interest on these bonds.*

   Response: The 5.5 percent interest rate reflects the Bond Buyer 11 High Grade GO Bond Index, at a 25-year maturity. This industry standard takes into consideration historical fluctuations.

6. *And so you know what we do folks, when we get thet spike? Well, what the State hes decided, in their infinite wisdom, is to go out end float a whole other set of bonds just to pay for the interest. Isn't that exciting? That's the kind of budgeting end planning I think that we're embracing as we aggressively move towards privatization. What we're losing in the process is the present end future common good of the public.*

   Response: Comment noted.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00655

November 13, 2002

Mr. Louis Xigogianis
430 Lewers Street, Apt. 6B
Honolulu, Hawaii 96815

Dear Mr. Xigogianis:

Subject: Primary Corridor Transportation Project

This is in response to your oral testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *And I would like to say that when Cheryl Soon gave e presentation to – I think it was the Waikiki Residents Association several months ago about the BRT, I liked it. I thought it was very sleek.*

   Response: Thank you for attending the public hearing.

2. *But since then, I've changed my mind. And after e lot of the testimony today, I feel that it has quite a few problems that haven't been answered.*

   Response: We appreciate you expressing your views regarding the proposed project.

3. *And I would like to propose a compromise, and that is, we should work on our present bus system and extend it, improve it, and do all kinds of things to encourage people to ride the present bus system.*

   Response: The Refined LPA will be phased in over a 13-year period. The initial years will be focused on what you suggest, namely improving the existing bus system including installing the In-Town BRT.

4. *I'm a senior citizen, and I have my bus pass, and I have a car. I live in Waikiki. But I take the bus whenever I go to town, just about every time I go to town, because it's so much simpler. It takes e little longer than driving, but then you don't heve to worry about the perking.*

   Response: Thank you for using the bus system. The BRT system will provide you with an additional transportation mode to use in making trips.

5. *And I think that, if you live out in the country, they already have Express buses. I think that could be improved upon. I think if you live in Manoa or some of the mountain areas and the ridges, I think that that – that those areas could be better served if they had buses that went around and around and around met up with the main line buses. Because many people that live in Manoa don't want to take the bus because it only runs every 45 minutes or so, and it only runs maybe till 10 o'clock at night. And so if you come in to Waikiki, why, you can't take the bus home.*

   Response: That is what is proposed with the Refined LPA.

6. *I'm in favor of the present bus system, so let's spend some of the money you were going to spend on the BRT, let's put that into the present bus system, improve that, and then think about the future, since so many people are worried about the future – we should be – and maybe consider a monorail system for the future.*

   Response: That is what is proposed with the Refined LPA.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00656

November 13, 2002

Mr. Ron York
1824 Dillingham Boulevard
Honolulu, Hawaii 96819-4019

Dear Mr. York:

Subject: Primary Corridor Transportation Project

This is in response to your testimony at the April 20, 2002 public hearing regarding comments on the Supplemental Draft Environmental Impact Statement (SDEIS).

1. *I am a property owner on the Dillingham corridor. First, I want to say I really think the process is fraught from the informational position. As a property owner along the corridor, the only way I found out that there was something happening in that area is by one of my cohorts that lives across the street saying they're holding some meetings. None of us were ever informed. And something of this magnitude, that is going to have a financial impact on the worth of the people's property and also the employment of these people, they should have the information before they sign extension on leases, because this construction cycle is going to take a long period of time. All right.*

   Response: The project's public involvement process began in 1998 with the TRANS 2K meetings. There have been hundreds of meetings regarding the project, including the working groups formed to give the public a better understanding of the project. The working groups input resulted in project changes, which are reflected in the SDEIS. The project has been the subject of numerous newspaper articles plus radio and television spots. In addition, the eight project newsletters have each been distributed to over 10,000 people on the project mailing list.

2. *I have a letter here that we addressed, with Romy Cachola, to Cheryl Soon, asking for answers. And it says, "How will BRT impact Teamsters trucking industries who depend on timely delivery of goods and services, that cannot happen when two lanes of traffic will be designated solely for BRT, leaving just one lane in each direction?" Cheryl Soon's answer: "In Dillingham Boulevard corridor, the BRT team has worked with each of the business and property owners on Dillingham to insure that access for both delivery trucks and customers will be maintained." Nobody has ever contacted and nobody can show me a written letter that has been given to any business or lessee along the corridor. And this is going to really impact, because most of those people rely on people crossing the center lane to get into their property and their small little parking areas, and we are going to lose all of that. All right. So we never was informed correctly. And that's disturbing. Okay.*

   Response: Representatives of businesses on Dillingham Boulevard participated in a series of workshops the City held with the Kalihi Business Association and were participants in the Kalihi Working Group meetings. Alternatives to maintaining access to businesses along Dillingham Boulevard were developed at these meetings.

3. *The thing also that bothers me is that we have construction going on around this island in the same areas on continuous years. Dillingham is a prime corridor for that. The end of H-1 Freeway, Ainakoa Street, prime targets for that. I strongly suggest that, whatever kind of transit system you people ever design, that you turn around and work below the grade first and make sure everything is updated below the grade before you put any concrete or blacktop down, because you people are going to be the severe impact that you're going to have on traffic, not the traffic. Okey.*

   Response: Efforts to coordinate with other projects has already begun. These coordination efforts will continue through the final design and construction phases.

4. *In regards to Dillingham becoming only a two-lane highway, Dillingham is one of only five hub roadways that go into town, probably the second largest transportation artery going into town. And to perceive that you can take two lanes of that traffic out of there and not impact traffic is absurd. That traffic right now is blocked up past the airport on-ramp. It will be way out towards Radford area. All right. You have three lanes of traffic that people jump trying to get in at the last minute, so you're going to block all of the traffic to the Express lane that gets you down to Nimitz Highway. All right.*

   Response: As documented in Chapter 4 of the FEIS, there will be enough people diverted out of the cars onto public transit for Dillingham Boulevard to operate effectively with one general purpose lane in each direction, plus turn lanes at major intersections. Along half of the route, the general purpose lanes will be extra wide so that stopped and right-turning vehicles will not hold up traffic behind it. Along the other half, bus turnouts will be installed so that stopped buses do not block traffic.

   Because of the diversion of people from autos to transit, even with the BRT lanes, the traffic LOS along Dillingham Boulevard will be equal to or better than conditions with the No-Build Alternative. Additionally, traffic LOS on parallel streets such as N. King Street and Nimitz Highway will be equal to or in most cases better with the BRT lanes on Dillingham Boulevard than without them.

   Moreover, the exclusive BRT lanes on Dillingham Boulevard will enable Dillingham Boulevard to carry 3 times the number of people that it can carry today.

5. *All of the surface work that has to be done on any road in this state is done from the right-hand lane. That means water, sewers, gas lines, all of that is in the right-hand lane, and that has been to be serviced by our municipality utility companies, which will block all traffic. Right now you have three to four buses that piggyback down the road because they can't get distances between themselves. And now you're going to make that even worse.*

   Response: See response to comment #3.

6. *How are you going to get transportation deliveries when they can't pull off the road? How are the mail people going to get in when they can't pull off the road? So you have some serious problems here that I would like to see you come up with solutions for first before anybody can supporting a system like this.*

   Response: Most businesses on Dillingham Boulevard have off-street areas where delivery vehicles can park. Others have rear access via parallel streets such as Colburn and Kaumualii Streets.

We will send you a CD-ROM copy of the Final Environmental Impact Statement (FEIS) under separate cover. If you require a printed copy of the FEIS, please contact Faith Miyamoto at 527-6976. We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

JOSEPH W.C. YOUNG, D.D.S
317 NENUE STREET
HONOLULU, HAWAII 96821

RECEIVED
Nov 13 8 48 AM '00
CITY CLERK
HONOLULU, HAWAII

November 10, 2000

Honorable Chairman and Committee Members,

My name is Joseph Young and I am speaking in favor of the Bus Rapid Transit (B.R.T.).

After years of research and study the City, with many meetings with the community arrived at alternatives.

This alternative is not only for the present but especially for the future.

We all know that the traffic is getting worse everyday and the cost of gasoline is going up more frequently.

The increase in traffic can't be helped due to progress. This is experienced in all cities.

To alleviate this situation is to select the B.R.T. alternative, a more benign and affordable solution to the situation.

Here are some of the reasons why B.R.T. is the best choice:

1) This alternative will improve mobility.
2) This will provide people who do not drive, a better way to travel.
3) The project's finances will be shared by the Federal Government.
4) It will result in less pollution.
5) It will reduce the building of more highways.
6) It will especially link our 2nd city with downtown Honolulu.

There are many other good reasons.

The time to act is now.

Therefore I ask you to favorably consider the B.R.T. alternative.

Sincerely,

Joseph W.C. Young, D.D.S.

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4529 • Fax: (808) 523-4730 • Internet: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00657

November 13, 2002

Joseph W.C. Young, DDS
317 Nenue Street
Honolulu, Hawaii 96821

Dear Dr. Young:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the MIS/DEIS. We are responding to your November 10, 2000 letter and your testimony at the November 14, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS:

1. *My name is Joseph Young and I am speaking in favor of the Bus Rapid Transit (B.R.T.).*

   Response: Comment noted. Thank you for supporting the project.

2. *Here are some of the reasons why B.R.T. is the best choice:*
   a) This alternative will improve mobility.
   b) This will provide people who do not drive a better way to travel.
   c) The project's finances will be shared by the Federal Government.
   d) It will result in less pollution.
   e) It will reduce the building of more highways.
   f) It will especially link our second city with downtown Honolulu.

   Response: DTS agrees with these statements.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD02-00658

November 13, 2002

Ms. Pam Young
P.O. Box 4444
Honolulu, Hawaii 96812

Dear Ms. Young:

Subject: Primary Corridor Transportation Project

This is in response to your comments on the MIS/DEIS. We are responding to your testimony at the October 19, 2000 Special Transportation Committee Meeting regarding the MIS/DEIS:

1. *I do support the concept of the Bus Rapid Transit alternative. I think that measures must be taken to increase the people-carrying capacity of our roads and the Bus Rapid Transit can accomplish this without any new taxes or user fees.*

   Response: Comment noted. It states a preference for a Locally Preferred Alternative (LPA).

2. *Furthermore, I do support the afternoon zipper lane as well as the extension of the morning zipper lane.*

   Response: Comment noted.

We appreciate your interest in the project.

Sincerely,

CHERYL D. SOON
Director

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Glossary
Acronyms
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List of Preparers
List of Recipients

Glossary

GLOSSARY

Arterial Roadway: A roadway with partial control of access, with some intersections at-grade and intended to move high volumes of traffic over long distances at high speed.

Articulated Vehicle: A vehicle, which is jointed in a fashion, which allows passenger access through the joint. Allows longer vehicles to turn at a shorter radius.

At-Grade: On the ground surface or that surface at which highest pedestrian and vehicular traffic occurs.

Below-Grade: Placed below the ground surface as with a subway.

Best Management Practices: Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce pollution. BMPs can also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Bus Lane: A lane of a road or street specifically designated for buses (may or may not be exclusive).

Bus Rapid Transit (BRT): BRT involves major investments in infrastructure, equipment, operational improvements, and technology that substantially upgrade bus system performance by providing faster operating speeds, greater reliability of service, and increased convenience and passenger amenities.

Capital Costs: Nonrecurring costs required to construct transit systems, including costs of right-of-way, facilities, rolling stock, power distribution, and the associated administrative and design costs, and financing charges during construction.

Carpool: A group of passengers and drivers organized to utilize one automobile on a regular basis, riding together, for the same trip purpose (generally the work trip).

Central Business District: The single business and commercial region, which dominates the financial life of an urban region and may also contain a very substantial portion of the specialty commercial activity.

Central Oahu: The DPA, which contains the wide plateau between the Waianae and Koolau Mountain ranges. It includes the more recently developed Mililani, Waipio, Waikele and Kunia. Portions within the primary transportation corridor include Waipahu, Kunia, Waikele and Waipahu.

Circulator: Circulator routes provide service within a neighborhood or activity center. These routes are designed to accommodate shorter passenger trips that either could not be served by line haul transit or would cause localized overcrowding on line haul routes. These routes typically connect to line haul routes at a commercial or activity center, and route alignment may be circuitous in order to provide more convenient passenger access and neighborhood coverage.

Collector: Collector routes provide service between residential areas and line haul routes. Some routes also operate through downtown Honolulu. Collector service often may be coordinated with a line haul route to reduce transfer wait time.

Consist: A make up of transit vehicles forming a train (e.g. 2, 4, 6, etc.)

Curb Lane: A road or street lane adjacent to the curb at its side.

DBA: Abbreviation for decibels of sound pressure as read on the "A" scale.

Development Plan Area (DPA): The City and County of Honolulu prepares a Development Plan (DP) for each of the eight DPAs on the island of Oahu, as defined by the General Plan. Each DPA has its own detailed land use and public facilities maps, as well as policies and conceptual schemes in line with the development objectives and policies in the General Plan.

Distribution: The process of letting passengers off at a number of different locations.

Elevated Guideway: A guideway, which is positioned above the normal activity level (e.g. elevated over a street).

Emissions: Particulate, gaseous, noise or electro-magnetic by-products of the transit system or vehicle.

Envelope: Definition of the vertical and horizontal space required for both the transit vehicle and/or the guideway.

Ewa: The DPA containing the second city of Kapolei, Barbers Point Naval Air Station, Campbell Industrial Park, and the Ewa villages. It is also used to indicate direction.

Express Service: Transit service where a very limited number of stops are made en route.

Fixed Guideway Modernization Program (FGM): Federal Transit Authority (FTA) 5309 Capital Investment Grants and Loans program used to help fund major transit capital improvement projects.

General Plan: The General Plan (revised 1992) of the City and County of Honolulu includes broad statements on the objectives and policies of the City and County with regard to overall physical and economic development of the island, as well as the health and safety of the island's residents.

General Obligation Bonds (G.O. Bonds or GO Bonds): Bonds the City and County of Honolulu issues to assist in paying for capital projects.

Grade-Separated: Crossing lines of traffic vertically separated from each other and do not share a common intersection.

Headway: The time interval between identical points on successive vehicles passing the same point along the way.

Heavy Rail Transit: Rail transit mode characterized by exclusive grade-separated operation (aerial or subway in many cases) and higher average operating speeds and passenger capacities. Usually heavy rail involves a higher degree of automation and central control than does light rail.

High-Occupancy Vehicle (HOV): Typically includes carpools with two or more people, vanpools, and buses.

Hub-and-Spoke Network: A transit structure, which is characterized by primary, or trunk, routes and collector routes that converge at transit centers throughout a service area. Collector, or feeder, routes serve residential areas or special generators and connect to trunk routes at transit centers. Hub-and-spoke represents an effective system design to minimize duplicative line haul service or connect relatively independent communities within a single metropolitan area.

Intelligent Transportation Systems (ITS): ITS are technologies that provide incident management, transit priority, and traveler information along major streets and highways.

Interchange: The system of interconnecting ramps between two or more intersecting roadways or guideways, which are grade-separated.

Koko Head: Geographical area in the southeast corner of Oahu. Used to indicate direction pointing to this area.

Kupuna Iwi: Ancestral native-Hawaiian burial site.

Level-of-Service (LOS): The LOS is an industry-accepted standard for measuring the efficiency of traffic conditions, with a LOS of A indicating the best traffic conditions and F indicating the worst.

Light Rail Transit (LRT): Transit mode characterized by its ability to operate in both at-grade and/or grade-separated environment, and usually operating in smaller trains consisting of 2, 4, or 6 vehicles.

Line Haul: A transit system, which offers service along a line or corridor.

Link: A representative portion of a transportation network, which joins two modes.

Linked Trip: Total passenger (fare-paying) trips. Linked trips exclude transfers; consequently, the number of linked trips must always be less than (or equal to) the number of unlinked (boarding) trips.

Local Service: A type of operation involving frequent stops and consequent low speeds, the purpose of which is to deliver and pick up transit passengers as close to their destinations or origins as possible.

Makai: Hawaiian terminology meaning direction pointing to the ocean.

Mauka: Hawaiian terminology meaning direction pointing to the mountains.

Mode: A particular form or method of travel.

Monorail: A guideway where vertical vehicle support and lateral guidance is provided by a single track or rail.

Network: A system of real or hypothetical interconnecting links that form the configuration of transit routes and stops, which constitute the total system.

No-Build Condition (No-Build): A project alternative, which includes the existing transportation system and conversion of the present predominately radial route structure to a hub-and-spoke configuration. Also included are highway improvement projects, which have been identified by OMPO I the TOP 2025. All elements of the No-Build Alternative also are part of each of the other alternatives. The No-Build Alternative also serves as the baseline for establishing environmental impacts of the other alternatives.

Off-Peak: Those periods of the day where demand for transit service is not at a maximum.

On-Demand: Transit service rendered upon the specific demand of a passenger

Operating Costs: Recurring costs incurred in operating transit systems, including wages and salaries, maintenance of facilities and equipment, fuel, supplies, employee benefits, insurance, taxes, and other administrative costs. Amortization of facilities and equipment is not included.

Park-and-Ride Facility: The transfer point of an intermodal trip where the driver of an automobile parks her or his automobile and changes to the transit mode.

Patronage: The number of person-trips carried by a transit system over a specified time period.

Peak Hour: The hour of the day in which the maximum demand for service is experienced.

Peak Period: A specified time period for which the volume of traffic is greater than that during other similar periods (i.e., peak hour, peak 5 minutes, etc.).

Person-trip: A trip made by a person by any travel mode.

Primary Transportation Corridor: The corridor extending from Kapolei to University of Hawaii at Manoa and Waikiki. The corridor is by far the most urban region on Oahu and in the State, encompassing more than 56 percent of the island's population and more than 80 percent of its employment.

Primary Urban Center (PUC): The DPA, which extends from Waialae-Kahala to Pearl City, and is bounded on the north (mauka) by the Koolau mountain range and on the south (makai) by the coastline. The PUC consists of 3 sub-regions: the Heart of Honolulu, the Salt Lake/Airport area, and the Heart of Pearl Harbor.

Queue jump lane: A queue jump lane is a short exclusive lane that allows buses to move to the head of a line of traffic.

Revenue Service: The time during which a transit vehicle is in service and available to passengers for transportation. This term also applies to revenue car-miles and to revenue car-hours. The time during which a vehicle is not available is deadheading time.

Right-of-Way (ROW): The corridor (horizontal and vertical space) occupied by the transportation way.

Route: The course followed by a transit vehicle as a part of the transit system.

Screenlines: Screenlines are imaginary lines or a distinct geographic features, such as a river, which cross transportation facilities being analyzed.

Section 4(f): Section 4(f) is from the U.S. Department of Transportation Act. It permits the use of land for a transportation project from a significant publicly-owned public park, recreation area, wildlife and waterfowl refuge, or a historic site, only when it has been determined that there is no feasible and prudent alternative to such use and the project includes all possible planning to minimize harm to the property resulting from such use.

Transfer: The portion of a trip between two connecting transit routes, both of which are used for completion of the trip.

Transit: A transportation system principally for moving people in an urban area and made available to the public usually through paying a fare.

Transitway: Specifically designed way traversed by transit vehicles constrained to the way.

Transit Center: Transit centers are transportation facilities also referred to as intermodal transfer facilities, transportation centers, stations, and terminals. They provide passengers access to the transportation system and are points of transfer between routes and/or modal interchange.

Transit Stop: The optional stop for a particular trip to leave the transit system.

Transportation Demand Measures (TDM): TDM elements include a variety of measures to reduce vehicle demands, including an integrated high-occupancy vehicle (HOV) lane system, park-and-ride lots, bicycle facilities, Transportation Management Associations (TMAs), and measures to encourage reductions in work trips.

Transportation System Management (TSM): TSM consists of transportation improvements designed to improve public transit service without major capital investments. TSM techniques include re-structuring of the bus route system, creation of transit centers and park-and-ride facilities, priority treatment for transit vehicles by signal control measures, and added service and/or frequency to major activity centers.

Travel Time: The time required to travel between two points, not including terminal or waiting time.

Trip: The one-way movement of one person between origin and destination, including the walk to and from the means of transportation.

Trips, Home-Based: Trips having either origin or destination at the home.

Trips, Non-Home Based: Trips having neither origin nor destination at the home.

Urban Core: The portion of the primary transportation corridor between Middle Street on the west and Waikiki/U.H. Manoa on the east.

Urbanized Area (UZA) Formula Grant Program: FTA Section 5307 grant program, which is a special program to fund capital improvement projects.

Zipper Lane: The zipper lane is a peak-period contraflow lane created by a movable barrier adjacent to the highway median. There is currently a zipper lane on a portion of H-1 to serve the Koko Head-bound peak morning traffic. Access is restricted to high-occupancy vehicles with either two or three or more occupants, depending on the time of operation, and motorcycles.

Acronyms

ACRONYMS

AAQS	-	Ambient Air Quality Standards
AASHTO	-	American Association of State Highway and Transportation Officials
ACHP	-	Advisory Council on Historic Preservation
ACOE	-	Army Corps of Engineers
ADA	-	Americans with Disabilities Act
AGT	-	Automated Guideway Transit
AMR	-	Aliamanu Military Reservation
APE	-	area of potential effect
ATDC	-	Aloha Tower Development Corporation
BMP	-	Best Management Practice
BRT	-	Bus Rapid Transit
BTU	-	British Thermal Units
CBD	-	Central Business District
CE	-	considered eligible
CERCLA	-	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	-	Comprehensive Environmental Response, Compensation, and Liability Information Systems
CFR	-	Code of Federal Regulations
CIP	-	Capital Improvement Program
CMP	-	Containment Management Plan
CO	-	carbon monoxide
CORRACTS	-	Corrective Action Reports
CZM	-	Coastal Zone Management
dB	-	decibels
dBA	-	decibels on A-weighted scale
DBEDT	-	State Department of Business, Economic Development, and Tourism
DE	-	determined eligible
DEIS	-	Draft Environmental Impact Statement
DHHL	-	Department of Hawaiian Home Lands
DLNR	-	Department of Land and Natural Resources
DOH	-	Department of Health
DOT	-	Department of Transportation
DP	-	Development Plan
DPA	-	Development Plan Area
DPP	-	Department of Planning and Permitting
DTS	-	Department of Transportation Services
EIS	-	Environmental Impact Statement
EISPN		Environmental Impact Statement Preparation Notice
EJC	-	Estate of James Campbell
EO	-	Executive Order
EPA	-	Environmental Protection Agency
ERNS	-	Emergency Response Notification System
FEIS	-	Final Environmental Impact Statement
FEMA	-	Federal Emergency Management Agency
FFPA	-	Federal Farmland Protection Act
FGM	-	Fixed Guideway Modernization
FHWA	-	Federal Highway Administration
FINDS	-	Facility Index System
FIRM	-	Flood Insurance Rate Maps
FTA	-	Federal Transit Administration

FWS	-	U.S. Fish & Wildlife Service
FY	-	Fiscal Year
GLA	-	Gross Leasable Area
GO	-	General Obligation
HAR	-	Hawaii Administrative Rules
HCC	-	Honolulu Community College
HCDA	-	Hawaii Community Development Authority
HCDCH	-	Housing and Community Development Corporation of Hawaii
HCHD	-	Hawaii Capitol Historic District
HDOH	-	Hawaii Department of Health
HDOT	-	Hawaii Department of Transportation
HECO	-	Hawaiian Electric Company
HIA	-	Honolulu International Airport
HOV	-	High Occupancy Vehicle
HR	-	Hawaii Register
HRS	-	Hawaii Revised Statutes
HMIRS	-	Hazardous Materials Incident Report System
HT	-	Heavy Trucks
HWMP	-	Honolulu Waterfront Master Plan
IMCP	-	Islandwide Mobility Concept Plan
IPT	-	Inductive Power Transfer
IOS	-	Interim Operating Segment
ITS	-	Intelligent Transportation Systems
KSBE	-	Kamehameha Schools / Bernice Pauahi Bishop Estate
Ldn	-	Day-Night equivalent sound level measured in dBA
LDV	-	Light-duty Vehicles
Leq	-	equivalent sound level measured in dBA
Lmax	-	maximum noise level measured in dBA
LOS	-	Level-of-Service
LOTMA	-	Leeward Oahu Transportation Management Association
LPA	-	Locally Preferred Alternative
LQG	-	large quantity generators
LRT	-	Light Rail Transit
LU	-	Landscape Units
LUO	-	Land Use Ordinance
LUST	-	Leaking Underground Storage Tank
MAGLEV	-	Magnetically Levitated Vehicles
MIS	-	Major Investment Study
MLTS	-	Material Licensing Tracking System
MOA	-	Memorandum of Agreement
MOU	-	Memorandum of Understanding
MT	-	Medium Trucks
NAAQS	-	National Ambient Air Quality Standards
NAC	-	Noise Abatement Criteria
NASBP	-	Naval Air Station Barbers Point
NAS	-	Naval Air Station
NBC	-	Neal Blaisdell Center
NCHRP	-	National Cooperative Highway Research Program
NCP	-	National Oil and Hazardous Substances Pollution Contingency Plan
NEPA	-	National Environmental Policy Act
NFRAP	-	no further remedial action planned
NHL	-	National Historic Landmark
NHPA	-	National Historic Preservation Act
NMFS	-	National Marine Fisheries Service

NOA	-	Notice of Availability
NOI	-	Notice of Intent
NPL	-	National Priority List
NRC	-	Nuclear Regulatory Commission
NRCS	-	Natural Resources Conservation Service
NRHP	-	National Register of Historic Places
OCHMP	-	Oahu Commercial Harbors Master Plan
OHA	-	Office of Hawaiian Affairs
OMPO	-	Oahu Metropolitan Planning Organization
OR&L	-	Oahu Railway and Land Co.
ORTP	-	Oahu Regional Transportation Plan
OP	-	Office of Planning (formerly Office of State Planning)
PADS	-	PCB Activity Database System
PCB	-	polychlorinated biphenyls
PCTP	-	Primary Corridor Transportation Project
PE/FEIS		Preliminary Engineering/Final Environmental Impact Statement
PM	-	Particulate Matter
PPE	-	Personal Protective Equipment
PUC	-	Primary Urban Center
RAATS	-	RCRA Administration Action Tracking System
RCRA	-	Resource Conservation and Recovery Act
RCRIS	-	Resource Conservation and Recovery Information Systems
RCRIS-TSD	-	Resource Conservation and Recovery Information System (transport, store dispose)
ROD	-	Record of Decision
RORO	-	roll-on, roll-off
ROW	-	right-of-way
SCE	-	Southern California Edison
SCORP	-	State Comprehensive Outdoor Recreation Plan
SDEIS	-	Supplemental Draft Environmental Impact Statement
SDG&E	-	San Diego Gas and Electric
SDOH	-	See HDOH (Hawaii Department of Health)
SDOT	-	See HDOT (Hawaii Department of Transportation)
SHPD	-	State Historic Preservation Division
SHPO	-	State Historic Preservation Officer
SIAR	-	Sand Island Access Road
SIP	-	Statewide Implementation Plan
SLUC	-	State Land Use Commission
SMA	-	Special Management Area
SMF	-	Soil Management Facility
SOBA	-	Southern Oahu Basal Aquifer
SOODS	-	Southern Oahu Ocean Disposal Site
STIP	-	Statewide Transportation Improvement Plan
TAMC	-	Tripler Army Medical Center
TAZ	-	Transportation Analysis Zone
TBD	-	to be determined at a later date
TCP	-	traditional cultural properties
TDM	-	Transportation Demand Management
TIP	-	Transportation Improvement Program
TMA	-	Transportation Management Association
TMK	-	tax map key
TOD	-	transit oriented development
TOP	-	Transportation for Oahu Plan
TPSS	-	Traction Power Supply Station

TRI	-	Travel Rate Index
TRIS	-	Toxic Release Inventory System
TSCA	-	Toxic Substances Control Act
TSD	-	transport, store, dispose
TSM	-	Transportation System Management
UC	-	under construction
UH	-	University of Hawaii
UHHD	-	University of Hawaii Historic District
U.S.C.	-	United States Code
UST	-	underground storage tank
UZA	-	Urbanized Area
V/C	-	(traffic) Volume/Capacity Ratio
VHD	-	vehicle hours of delay
VHT	-	vehicle hours of travel
VMT	-	vehicle miles traveled
VPH	-	vehicles per hour

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Final Environmental Impact Statement

Primary Corridor Transportation Project

List of Recipients

LIST OF FEIS RECIPIENTS

Federal Agencies

- Department of Agriculture, Natural Resources Conservation Service
- Department of Defense
  - Army Corps of Engineers
  - U.S. Department of the Navy
  - U.S. Naval Base Pearl Harbor
  - U.S. Army Garrison-Hawaii
  - 15th CES - Hickam AFB
- Department of the Interior
- Department of Transportation
  - Federal Highway Administration
  - Federal Transit Administration
  - Federal Aviation Administration
  - Coast Guard
- Environmental Protection Agency
- Federal Emergency Management Agency

State of Hawaii Agencies

- Aloha Tower Development Corporation
- Department of Agriculture
- Department of Accounting and General Services
- Department of Business, Economic Development & Tourism
  - Office of Planning
  - Housing and Community Development Corporation of Hawaii
  - Land Use Commission
  - Energy, Resources & Technology Division
  - Research and Economic Analysis Division
- Department of Defense
- Department of Education
- Department of Hawaiian Home Lands
- Department of Health
- Department of Land and Natural Resources
- Department of Transportation
- Hawaii Community Development Authority
- Office of Environmental Quality Control
- Office of Hawaiian Affairs
- University of Hawaii
  - Environmental Center
  - Water Resources Research Center
  - Facilities Planning and Management Office
  - Hamilton Library

City and County of Honolulu Agencies

- Board of Water Supply
- Department of Design and Construction
- Department of Environmental Services
- Department of Facility Maintenance
- Department of Parks and Recreation
- Department of Planning and Permitting
- Department of Transportation Services, Committee for Accessible Transportation
- Fire Department

- Honolulu Municipal Reference and Records Center
- Mayor's Advisory Committee on Bicycling
- Police Department
- Transportation Commission
- Committee on Accessible Transportation

Elected Officials

- U.S. Congress
  - Honorable Daniel K. Akaka
  - Honorable Daniel K. Inouye
  - Honorable Neil Abercrombie
  - Honorable Ed Case
- State of Hawaii Legislature
  - Honorable Melodie Williams Aduja, State Senator
  - Honorable Rosalyn Baker, State Senator
  - Honorable Robert Bunda, State Senator
  - Honorable Suzanne Chun Oakland, State Senator
  - Honorable Willie C. Espero, State Senator
  - Honorable Carol Fukunaga, State Senator
  - Honorable Colleen Hanabusa, State Senator
  - Honorable Fred Hemmings, State Senator
  - Honorable Bob Hogue, State Senator
  - Honorable David Y. Ige, State Senator
  - Honorable Les Ihara, State Senator
  - Honorable Brian Kanno, State Senator
  - Honorable Calvin K. Kawamoto, State Senator
  - Honorable Donna Mercado Kim, State Senator
  - Honorable Ron Menor, State Senator
  - Honorable Norman Sakamoto, State Senator
  - Honorable Sam Slom, State Senator
  - Honorable Brian Taniguchi, State Senator
  - Honorable Gordon Trimble, State Senator
  - Honorable Paul Whalen, State Senator
  - Honorable Felipe Abinsay Jr., State Representative
  - Honorable Dennis Arakaki, State Representative
  - Honorable Brian Blundell, State Representative
  - Honorable Kirk Caldwell, State Representative
  - Honorable Corinne W. L. Ching, State Representative
  - Honorable Lynn Finnegan, State Representative
  - Honorable Galen Fox, State Representative
  - Honorable Ken Hiraki, State Representative
  - Honorable Ken Ito, State Representative
  - Honorable Michael Puamamo Kahikina, State Representative
  - Honorable Jon Riki Karamatsu, State Representative
  - Honorable Marilyn Lee, State Representative
  - Honorable Bertha F.K. Leong, State Representative
  - Honorable Sylvia Luke, State Representative
  - Honorable Michael Magaoay, State Representative
  - Honorable Barbara Marumoto, State Representative
  - Honorable Colleen Meyer, State Representative
  - Honorable Romy M. Mindo, State Representative
  - Honorable Mark S. Moses, State Representative
  - Honorable Bob Nakasone, State Representative
  - Honorable Scott Nishimoto, State Representative

  - Honorable Guy Ontai, State Representative
  - Honorable Blake Oshiro, State Representative
  - Honorable Marcus R. Oshiro, State Representative
  - Honorable David Pendleton, State Representative
  - Honorable Scott Saiki, State Representative
  - Honorable Calvin Say, State Representative
  - Honorable Brian Schatz, State Representative
  - Honorable Maile S. L. Shimabukuro, State Representative
  - Honorable Alex M. Sonson, State Representative
  - Honorable Joseph M. Souki, State Representative
  - Honorable Bud Stonebraker, State Representative
  - Honorable Mark Takai, State Representative
  - Honorable Roy Takumi, State Representative
  - Honorable Tulsi Gabbard Tamayo, State Representative
  - Honorable Cynthia Thielen, State Representative
  - Honorable Glenn Wakai, State Representative
  - Honorable Tommy Waters, State Representative
- City Council
  - Honorable Romy Cachola
  - Honorable Charles Djou
  - Honorable Donovan M. Dela Cruz
  - Honorable Mike Gabbard
  - Honorable Nestor R. Garcia
  - Honorable Ann Kobayashi
  - Honorable Barbara Marshall
  - Honorable Gary Okino
  - Honorable Rod Tam

Libraries

- Legislative Reference Bureau
- DBEDT Library
- State Main Library
- Kaimuki Regional Library
- Hilo Regional Library
- Kahului Public Library (Maui Regional Library)
- Lihue Regional Library
- Kaneohe Regional Library
- Pearl City Regional Library
- Hawaii Kai Regional Library
- Aiea Library
- Aina Haina Library
- Ewa Beach Community – School Library
- Kahuku Community – School Library
- Kailua Library
- Kalihi-Palama Library
- Library for the Blind and Physically Handicapped
- Liliha Library
- Manoa Library
- McCully-Moiliili Library
- Mililani Library
- Salt Lake-Moanalua Public Library
- Wahiawa Library
- Waialua Library
- Waianae Library

- Waikiki-Kapahulu Library
- Waimanalo Community – School Library
- Waipahu Library

Neighborhood Boards and Community Groups

- Neighborhood Boards
  - Kaimuki Neighborhood Board No. 4
  - Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board No. 5
  - Palolo Neighborhood Board No. 6
  - Manoa Neighborhood Board No. 7
  - McCully/Moiliili Neighborhood Board No. 8
  - Waikiki Neighborhood Board No. 9
  - Makiki/Lower Punchbowl/Tantalus Neighborhood Board No. 10
  - Ala Moana/Kakaako Neighborhood Board No. 11
  - Nuuanu/Punchbowl Neighborhood Board No. 12
  - Downtown Neighborhood Board No. 13
  - Liliha/Kapalama Neighborhood No. 14
  - Kalihi Palama Neighborhood Board No. 15
  - Kalihi Valley Neighborhood Board No. 16
  - Aliamanu/Salt Lake/Foster Village Neighborhood Board No. 18
  - Aiea Neighborhood Board No. 20
  - Pearl City Neighborhood Board No. 21
  - Waipahu Neighborhood Board No. 22
  - Ewa Neighborhood Board No. 23
  - Waianae Coast Neighborhood Board No. 24
  - Mililani/Waipio/Melemanu Neighborhood Board No. 25
  - Makakilo/Kapolei/Honokai Hale Neighborhood Board No. 34
- Harbor Square Condominium Association
- Kakaako Improvement Association
- Kalihi-Palama Community Council
- Waipahu Community Association

News Media

- Honolulu Advertiser
- Honolulu Star-Bulletin

Organizations

- American Public Works Association, Hawaii Chapter
- Building Industry Association of Hawaii
- C.A.R.E. (Citizens Advocating Responsible Education)
- Consulting Engineers Council of Hawaii (now American Council of Engineering Companies of Hawaii)
- General Contractors Association of Hawaii
- Hawaii Activities and Tours Association
- Hawaii Attractions Association
- Hawaii Bicycling League
- Hawaii Construction Industry Association
- Hawaii Hotel Association
- Hawaii Teamsters and Allied Workers, Local 996
- Hawaii's Thousand Friends
- Hawaii Transportation Association
- Iolani Palace
- Kapiolani Park Preservation Society
- Land Use Research Foundation of Hawaii
- The League of Women Voters of Honolulu

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- Leeward Oahu Transportation Management Association (LOTMA)
- The Libertarian Party of Hawaii
- Life of the Land
- Oahu Metropolitan Planning Organization
- The Outdoor Circle / Na Leo Pohai
- Sierra Club, Hawaii Chapter
- Waikiki Improvement Association

Businesses

- Ala Moana Center
- Architects Hawaii Limited
- Charley's Taxi
- E Noa Corporation
- Estate of James Campbell
- Hawaiian Electric Company
- Hawaii State Federal Credit Union
- IND-COMM Management
- Oahu Transit Services, Inc.
- Paradise Cruise, Ltd.
- Passport Railroad
- Pauahi Management Corp.
- Polynesian Adventure Tours
- SuperStar
- T. Eki, Inc./Eki Cyclery
- Trans Hawaiian Services
- Verizon Hawaii
- Victoria Ward, Limited
- York & Co., Inc.

Private Citizens

- Adams, Karl & Mary Lou Zingalie
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- Takamura, Clifton
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Appendix A
Coordination and Consultation

APPENDIX A
COORDINATION AND CONSULTATION

This appendix summarizes the public and agency coordination and consultation activities that have been conducted for the Primary Corridor Transportation Project (PCTP) throughout the MIS/DEIS, SDEIS, and FEIS processes. Exhibits A-1 through A-5 include comment letters and responses regarding the EISPN and NOI, SDEISPN and NOI, and agency correspondence.

A.1 PUBLIC WORKSHOPS PRIOR TO THE MIS/DEIS

Public participation activities for the Primary Corridor Transportation Project started with gathering public input to create and refine the Islandwide Mobility Concept Plan (March 1999) (Mobility Plan). From September 1998 through November 1999, rounds of public workshops were held throughout Oahu. These workshops were called Oahu Trans 2K meetings. Each round served a different purpose. The meetings were well advertised, highly participatory, and structured to facilitate public input into the transportation planning process. Total attendance at these four rounds of meetings was over 1,250 individuals (with many attending more than one meeting), and the project mailing list included over 9,000 names.

A project website, <www.oahutrans2k.com>, was established and used to disseminate information. Public input received through the website was tabulated and distributed to agency and project planners. A project hotline was established, which provided information on the public workshops, and solicited public input. Comments received on the hotline were recorded and answered. A brochure was distributed at the public workshops with a tear card for public comments.

A.1.1 Round One Public Workshops

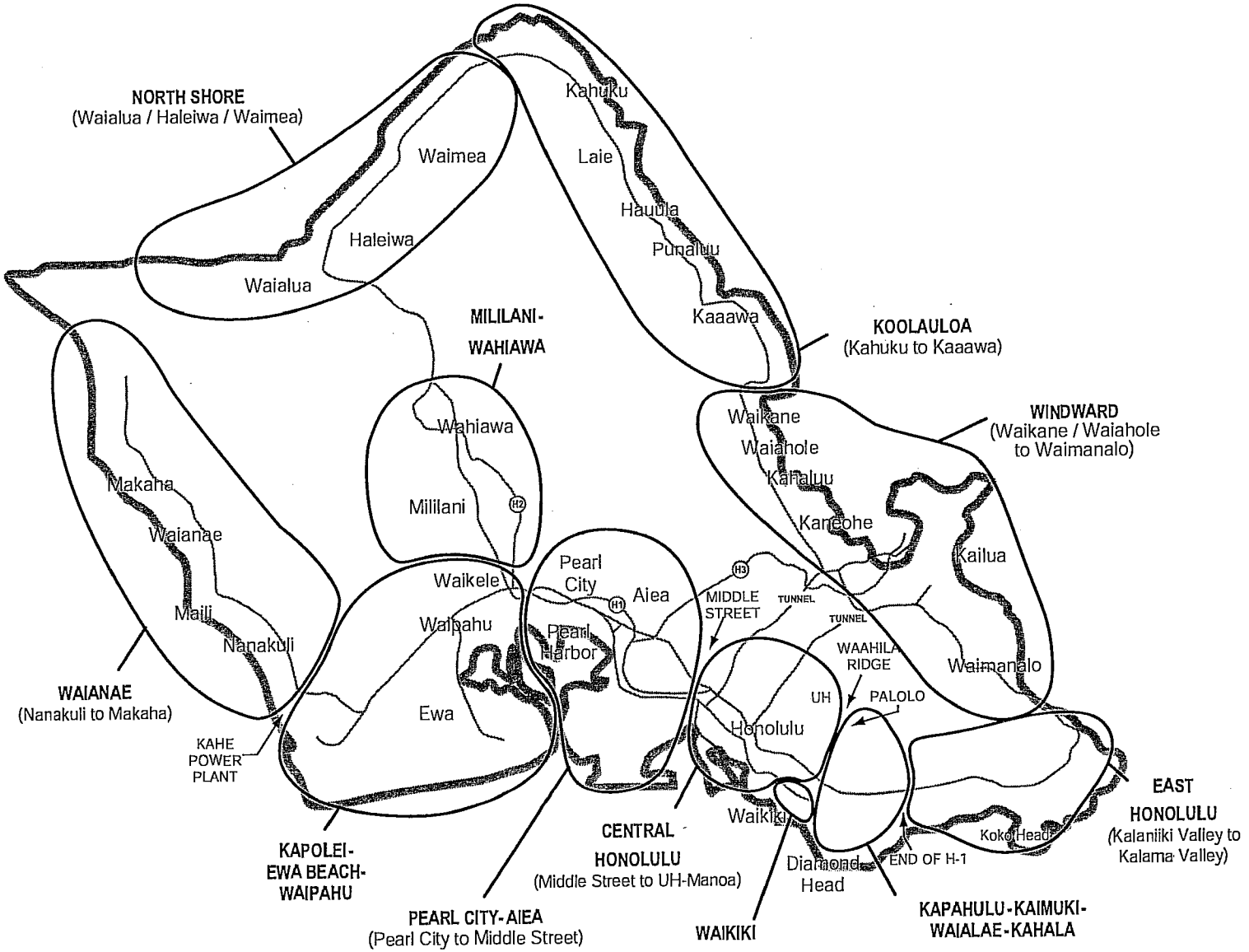
Round One was held in early fall 1998. For this round, Oahu was divided into 11 transportation planning zones (see Figure A.1-1). One workshop was held in each zone according to the schedule in Table A.1-1.

TABLE A.1-1
ROUND ONE SCHEDULE

Transportation Zone	Date	Location
Central Honolulu	September 28, 1998	Ala Moana Hotel
Pearl City-Aiea	September 29, 1998	Aiea High School
East Honolulu	September 30, 1998	Koko Head Elementary
Kapahulu-Kaimuki-Waialae-Kahala	October 1, 1998	Kahala Elementary
Waianae	October 5, 1998	Waianae High School
Kapolei-Ewa Beach-Waipahu	October 6, 1998	Campbell High School
Koolauloa	October 7, 1998	Laie Elementary
Windward	October 8, 1998	Castle High School
North Shore	October 13, 1998	Haleiwa Elementary
Mililani-Wahiawa	October 14, 1998	Mililani High School
Waikiki	November 5, 1998	Jefferson Elementary School

Source: City and County of Honolulu, Department of Transportation Services.

The purpose of Round One was to obtain input from the community on issues of greatest importance to them. Participants actively participate in the transportation planning process. The input from these workshops was used to:



SOURCE:
City & County of Honolulu, 2002.

N

Scale: 0 2 4 mi

Transportation Zones

Figure A.1-1

1. Develop a transportation vision for Oahu;
2. Determine how transportation fits within the Mayor's 21st Century Oahu Vision project;
3. Verify possible transportation improvements and projects for each transportation project zone;
4. Invite participants to share transportation ideas for their community, region and the island; and
5. Provide participants an opportunity to collectively mark down their ideas on a map.

The Round One workshops consisted of an open house, group table design sessions, and group report-back. The open house portion of the program consisted of booths providing information on current SDOT and DTS transportation programs. The SDOT booths included freeway management and ride share programs. The DTS booths included bike plan and traffic calming programs. Other booths showed Federal Transit Administration videos about transit in Portland, Oregon and Curitiba, Brazil, and information about the Primary Corridor Transportation project. The booths remained open throughout the workshop.

The workshop opened with an introductory video specifically produced for the Round One workshops. After that was the interactive portion of the program. Participants joined breakout sessions of about ten people each. A facilitator, whose job was to encourage participation and comments, and help move the process from complaints to proactive suggestions, led each breakout table. The breakout tables were organized by neighborhoods.

Following the interactive session, a spokesperson selected by each breakout group reported back to the larger group.

The comments from the Round One workshops were analyzed, and used to develop a Draft Mobility Plan.

A.1.2 Round Two Public Workshops

The Round Two workshops were conducted over a four-week period from November 16, 1998 to December 8, 1998 (see Table A.1-2). The schedule was designed so that at least a month would have passed between a Round One workshop and a Round Two workshop in a particular zone.

TABLE A.1-2
ROUND TWO SCHEDULE

Transportation Zone	Date	Location
Central Honolulu	November 16, 1998	Ala Moana Hotel
Kapahulu-Kaimuki-Waialae-Kahala	November 18, 1998	Kalmuki Intermedlate School
East Honolulu	November 19, 1998	Kalani High School
Waianae	November 23, 1998	Waianae High School
Kapolei-Ewa Beach-Walpahu	November 24, 1998	Waipahu Intermediate School
Koolauloa	November 30, 1998	Kahuku High School
Windward	December 1, 1998	Castle Hlgh School
North Shore	December 2, 1998	Waialua High School
Mlliilani-Wahiawa	December 3, 1998	Leilehua High School
Pearl City-Alea	December 7, 1998	Pearl City High School
Waikiki	December 8, 1998	Jefferson Elementary School

Source: City and County of Honolulu, Department of Transportation Services.

The Round Two workshops reported the results of the Round One workshops, and how the ideas collected fit together to make a Draft Mobility Plan. The Round Two workshops were also used to obtain feedback on certain elements of the Draft Mobility Plan. To accomplish this, the Round Two workshops were designed to:

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1. Describe the Round One workshop process;
2. Describe the data analysis effort and how the mobility concepts were generated;
3. Outline changes to suggested transportation improvements and projects based on Round One input;
4. Explain how ideas generated by each zone fit together into a Draft Mobility Plan;
5. Maintain a climate of interaction and positive dialogue;
6. Solicit additional input on transportation improvements and projects; and
7. Organize feedback for ease of review by the technical team.

To accomplish these goals, a custom-designed workbook was created for each zone. These workbooks contained maps and text outlining islandwide mobility concepts, along with exercises and questions designed to stimulate group interaction during participatory table sessions.

The Round Two program was similar in format to Round One, but included new materials. It began with a shorter open house portion and a new five-minute introductory video. The open house included new display boards outlining the 21st Century Oahu Vision Program, the data analysis process, and the Draft Mobility Plan. A laptop computer was available to introduce participants to the project website, <www.oahutrans2k.com>.

The interactive part of the program consisted of breakout sessions organized by neighborhoods, with participants completing the workbook exercises. Facilitators helped explain the concepts and group exercises. As in Round One, participants were encouraged to write down their ideas and mark up the workbooks.

Fifty-nine marked-up workbooks were produced during the Round Two workshops. The comments on these workbooks were used to refine the Draft Mobility Plan and produce a final plan.

A.1.3 Round Three Public Workshops

The Round Three meetings served primarily as a 'report-back' session, targeting the attendees of the Rounds One and Two Oahu Trans 2K meetings, as well as participants in the 21st Century Oahu Vision Program team members who were by then 6-7 months into the Vision Process. Since the Primary Corridor Transportation Project was part of the 21st Century Vision program, the Round Three meetings were conducted in the 19 vision team districts across Oahu, as opposed to the 11 transportation districts that formed the basis of the Rounds One and Two meetings (see Table A.1-3).

Round Three meetings had multiple objectives, including:

1. Present and distribute the Final Islandwide Mobility Concept Plan (March 1999) (Final Mobility Plan), a document based on the ideas from Rounds One and Two;
2. Explain the components of the Final Mobility Plan and how they coordinate;
3. Explain the transit alternatives being proposed for study in the upcoming MIS/EIS process;
4. Invite active participation in the upcoming formal scoping meeting that would kick off the MIS/EIS process; and
5. Obtain feedback on the components of the Final Mobility Plan.

Since the Round Three meetings were combined with meetings of the vision teams, meeting agendas varied to address issues relevant to each vision team. Presentation boards were displayed showing the proposed transit alternatives, the Final Mobility Plan, and the Sand Island Scenic Parkway/Nimitz Parkway plan. Most participants were supportive of and encouraged by the comprehensive nature of the Final Mobility Plan.

TABLE A.1-3
ROUND THREE SCHEDULE

Vision Team	Date	Location
Aina Haina/ Hawaii Kai	March 25,1999	Hahaione Elementary School
Makiki/McCully-Moiliili/Manoa	March 27, 1999	Ala Wai School
Ewa/Kapolei	March 29, 1999	Ewa Beach Elementary School
Mililani	March 30, 1999	Mililani District Park Multi-Purpose Room
Waipahu	April 1, 1999	Waipahu YMCA
Waialae-Kahala	April 5, 1999	Kapiolani Community College
Waimanalo	April 6, 1999	Waimanalo District Park Multi-Purpose Room
Kaneohe/Kahaluu	April 8, 1996	Kaneohe Senior Center
Kalihi-Palama	April 10, 1999	Mayor's Conference Room
Salt Lake/Moanalua	April 12, 1999	Alvah Scott Elementary School
Ala Moana/Kakaako/ Chinatown/Downtown	April 13, 1999	Blaisdell Center Oahu Room
Waikiki/Kapahulu/ Diamond Head	April 15, 1999	Ala Wai Golf Course Clubhouse
Nuuanu/Alewa	April 17, 1999	Mayor's Conference Room
Kailua	April 19, 1999	Kailua District Park Multi-Purpose Room
Waianae	April 20, 1999	Waianae District Park Multi-Purpose Building
North Shore	April 22, 1999	Haleiwa Alii Surf Center
Aiea/Pearl City	April 23, 1999	Waiau District Park
Wahiawa	April 26, 1999	Wahiawa District Park Recreation Center
Koolau Loa	April 27, 1999	Kahuku High School

Source: City and County of Honolulu, Department of Transportation Services.

A.1.4 Round Four Public Workshops

The Round Four meetings were held in the original 11 transportation zones, except East Honolulu was combined with Kapahulu-Kaimuki-Waialae-Kahala, decreasing the number of meetings to ten. Meetings were held over a three-week period from October 25, 1999 to November 9, 1999 (see Table A.1-4). Invitation letters and advertisements encouraged participants to review the Final Mobility Plan prior to attending the meetings.

TABLE A.1-4
ROUND FOUR SCHEDULE

Transportation Zone	Date	Location
Honolulu	October 25, 1999.	Washington Intermediate School
Waikiki	October 26, 1999	Jefferson Elementary School
Pearl City/Aiea/Salt Lake	October 27, 1999	Aiea Elementary School
Kaimuki/Kapahulu/ Waialae/Kahala & East Honolulu	October 28, 1999	Kaimuki Intermediate School
Waianae	November 1, 1999	Waianae District Park
Kapolei/Ewa/Waipahu	November 2, 1999	James Campbell Building
Windward	November 3, 1999	Castle High School
Mililani/Wahiawa	November 4, 1999	Mililani Middle School
North Shore	November 8, 1999	Waialua Elementary School
Koolau Loa	November 9, 1999	Laie Elementary School

Source: City and County of Honolulu, Department of Transportation Services.

The objectives of Round Four included:

1. Present an update of the project and explain the components of the transit program as reported in the Detailed Progress Report to City Council (November 1999);
2. Explain the Sand Island Scenic Parkway element of the project;
3. Review the financial plan of the project;
4. Review the project schedule; and

5. Provide participants the opportunity to question or comment on aspects of the project.

The Detailed Progress Report was well received by the meeting participants. Most of the questions and comments involved details of the In-town BRT.

A.2 FORMAL SCOPING ACTIVITIES PRIOR TO THE MIS/DEIS

The project's formal scoping process was initiated in March 1999, following completion and distribution of the final Islandwide Mobility Concept Plan (IMCP) (March 1999). Meetings were held with more than 100 governmental agencies, elected officials, businesses, and business, community and civic organizations to present the elements of the final IMCP and gather information and comments. Table A.2-1 lists scoping meetings held prior to the MIS/DEIS.

In accordance with the IMCP and Chapter 343 (the State EIS law) of the Hawaii Revised Statutes, an Environmental Impact Statement Preparation Notice (EISPN) for the Primary Corridor Transportation Project was published in the April 23, 1999 edition of the State Environmental Notice. Because this project anticipated using federal-aid, the Federal Transit Administration published a Notice of Intent to Prepare an EIS (NOI) in the April 27, 1999 edition of the Federal Register. The EISPN stated that an EIS would be prepared, described the alternatives under consideration at that time, and described the environmental studies to be conducted to evaluate the project alternatives in the DEIS. The EISPN was distributed to the federal, State and City and County of Honolulu agencies in Table A.2-2. In addition, the EISPN was sent to utility companies; transportation, business, environmental and neighborhood organizations; and elected officials.

The public review period for the EISPN and NOI closed on May 28, 1999, more than two weeks after the public scoping meeting. However, written comments were accepted by DTS beyond this review period. Table A.2-2 indicates the agencies, organizations and individuals that submitted written comments on the EISPN and NOI. Letters received in response to the EISPN and NOI are reproduced in Exhibit A-1, and Table A.2-3 summarizes these written comments. Responses were mailed to the commenters. Copies of these letters are also in Exhibit A-1.

An agency information meeting was held on March 11, 1999 to brief government agencies on the project, and to solicit relevant project information and agency concerns. The EISPN recipients shown on Table A.2-2 were invited to this meeting. The comments provided by the agencies that attended the meeting are summarized in Table A.2-4. The summaries on Table A.2-4 are meant to be brief, with no intention of obscuring the content of any comment received. The comments are followed by a written response.

A public scoping meeting was held on May 11, 1999 to invite public comment on the purpose of and need for the project, the alternatives under consideration and the environmental studies to be conducted. Following the presentation, oral comments were recorded and written comments were accepted. Table A.2-4 provide summaries of these comments. Additional comments were mailed to DTS after the scoping meeting and are also included in Table A.2-4. To reiterate, the summaries on Table A.2-4 are meant to be brief, with no intention of obscuring the content of any comment received. The comments are followed by a written response.

The EISPN and NOI included a Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP) Alternative. Based on input gathered during Rounds 3 and 4 of the Oahu Trans 2K meetings and agency consultation prior to the issuance of the MIS/DEIS, it was decided to move the Sand Island Scenic Parkway element forward apart from the transit alternatives. Agencies, stakeholders, and the public were informed of this change through letters and project Progress Reports (newsletters).

TABLE A.2-1
PROJECT SCOPING AND COORDINATION MEETINGS

Date	Organization or Agency	Date	Organization or Agency
January 13, 1999	Kalihi Business Association	February 1, 1999	Kalihi Community Council
March 17, 1999	OMPO CAC	March 18, 1999	Mobility Coalition Working Group
March 23, 1999	Outreach Breakfast Group w/Prof. Fielding	March 25, 1999	State Department of Transportation (HDOT), Harbors Division
April 5, 1999	City Council Transportation Committee	April 9, 1999	Hawaii Community Development Authority
April 8, 1999	Estate of James Campbell	April 8, 1999	State Department of Land and Natural Resources (DLNR), Historic Preservation Division
April 12, 1999	Federal Highway Administration (FHWA)	April 13, 1999	Presentation by Mayor to small business group at Oahu Country Club
April 14, 1999	State Department of Health (SDOH), Noise Branch	April 14, 1999	Maritime Subcommittee of the Hawaii Chamber of Commerce
April 16, 1999	DURP Students/Faculty	April 20, 1999	Senator Inouye's Office
April 22, 1999	DLNR	April 26, 1999	U.S. Army Corps of Engineers (USACE)
April 27, 1999	SDOT Highways Division and FHWA	April 28, 1999	DLNR
April 28, 1999	Hawaii Transportation Association	April 30, 1999	Cement and Concrete products Industry
May 6, 1999	Downtown Neighborhood Board No. 13	May 7, 1999	SDOT Highways Division
May 10, 1999	State Senator Cal Kawamoto	May 12, 1999	Mobility Coalition
May 17, 1999	OMPO Policy Committee	May 18, 1999	State Senator Norman Sakamoto
May 19, 1999	Mobility Coalition Working Group	May 20, 1999	Campbell Estate
May 27, 1999	State Department of Business, Economic Development and Foreign Trade Zone No. 9	June 4, 1999	US Coast Guard
June 8, 1999	Airport Group International	June 9, 1999	Chevron USA
June 10, 1999	Hawaii Stevedores, Inc.	June 15, 1999	Joint Waikiki Transportation Committee
June 15, 1999	US Department of Army	June 15, 1999	Prof. Karl Kim, University of Hawaii Department of Urban and Regional Planning
June 16, 1999	Malama o Manoa	June 16, 1999	City and County of Honolulu, Transportation Commission
June 16, 1999	Inchscape Shipping Services	June 17, 1999	DLNR Historic Preservation Division
June 17, 1999	Hawaii Pilots Association	June 21, 1999	Sand Island Business Association
June 29, 1999	U.S. Department of Navy	June 30, 1999	McCabe, Hamilton & Renny, Co., Ltd.
July 6, 1999	Atlantis Adventures	July 12, 1999	Sierra Club and local environmental organizations
July 7, 1999	Congressman Neil Abercrombie	July 13, 1999	DLNR
July 19, 1999	Young Brothers, Limited	July 21, 1999	Building and labor organizations
July 26, 1999	Waldron Steamship Company	July 29, 1999	Hawaii Business Roundtable and Oahu Economic Development Board
July 28, 1999	Aloha Cargo Transport	August 2, 1999	Tesoro, Ltd.
August 3, 1999	City and County of Honolulu, Department Design and Construction	August 4, 1999	USACE and the SDOT Harbors Division

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TABLE A.2-1 (CONTINUED)
PROJECT SCOPING AND COORDINATION MEETINGS

Date	Organization or Agency	Date	Organization or Agency
August 6, 1999	City and County of Honolulu, Department of Environmental Services	August 12, 1999	Resource Agencies (U.S. Environmental Protection Agency, National Marine Fisheries Service, USACE, SDOH, DLNR)
August 13, 1999	HDOT Highways Division	August 17, 1999	Filipino community group
August 17, 1999	City and County of Honolulu, Board of Water Supply	August 18, 1999	State House of Representatives, Transportation Committee
August 23, 1999	HDOT Harbors Division	August 24, 1999	Hawaii Hotel Association
August 24, 1999	SDOT Highways Division	August 26, 1999	Land Use Research Foundation
August 27, 1999	SDOT Highways Division	August 27, 1999	Hawaii Transportation Association
September 1, 1999	SDOT Highways Division	September 1, 1999	Senator Inouye and Mayor
September 3, 1999	Jacob Kamhis, Pacific Business News	September 9, 1999	Nautilus Subsea Adventures, Inc.
September 30, 1999	Waikiki Improvement Association's Board of Directors	October 13, 1999	Kalihi Business Association
October 27, 1999	Chinatown Task Force	November 3, 1999	Department Design and Construction
November 3, 1999	Sand Island Businesses	November 3, 1999	Department of Planning and Permitting
November 5, 1999	Mortgage Investors	November 8, 1999	GasCo
November 10, 1999	City Council Transportation Committee	November 10, 1999	Congressional Staff: Aaron Leong (Senator Inouye's Office), Alan Yamamoto (Representative Abercrombe's Office), Mike Kitamura (Senator Akaka's Office), Joan Menke (Representative Mink's Office)
November 15, 1999	Governor Cayetano	November 16, 1999	Oceanic Cable
November 16, 1999	Advertiser and Star-Bulletin Board	November 18, 1999	Oahu Transit Services
November 19, 1999	Committee for Accessible Transportation	November 22, 1999	Mayor's Maritime Task Force
November 24, 1999	Mobility Coalition Working Group	November 29, 1999	Iwilei Business Association
December 2, 1999	DLNR	December 2, 1999	Downtown Neighborhood Board No. 13
December 3, 1999	Neil Abercrombie	December 3, 1999	Campbell Estate
December 8, 1999	Aloha Stadium	December 10, 1999	Suzanne Chun Oakland
December 15, 1999	Native Hawaiian Fishermen's Association	December 13, 1999	Hawaiian Dredging
January 4, 2000	Mayor's Maritime Task Force	January 5, 2000	Moanalua Lions
January 6, 2000	Consulting Engineers Council of Hawaii	January 11, 2000	Army Civilian Engineers
January 13, 2000	Senator Inouye's Staff: Jennifer Sabas and Margaret Cumminsky (Legislative Director)	January 21, 2000	Waikiki Ohana Workforce
January 25, 2000	City Council Transportation Committee	February 2, 2000	City Council Transportation Committee
February 16, 2000	Oahu Metropolitan Planning Commission -- Citizen's Advisory Committee	February 17, 2000	Meeting with Wally Burnett, Appropriations Committee, Majority Staff, and Aaron Leong, Senator Inouye's staff
February 17, 2000	Waialae Kahala Neighborhood Board Meeting	February 23, 2000	City Council Transportation Committee
March 3, 2000	HCDA	March 6, 2000	Hawaiian Electric Company
March 6, 2000	DLNR	March 7, 2000	Waikiki Ohana Workforce (WOW) Executive Committee

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TABLE A.2-1 (CONTINUED)
PROJECT SCOPING AND COORDINATION MEETINGS

Date	Organization or Agency	Date	Organization or Agency
March 9, 2000	Eileen Mortenson, State Director, AARP	March 11, 2000	Vision Teams (19) at Hawaii Convention Center
March 21, 2000	Oahu Fleet Safety Organization	March 21, 2000	Waikiki Neighborhood Board
April 5, 2000	Waikiki Ohana Workforce Focus Group #1 (hotel employees)	April 7, 2000	Kalihi District Park - Meals on Wheels Senior Citizen group
April 10, 2000	Palama Settlement - Senior Citizens group	April 13, 2000	Mayor's Maritime Task Force
April 16, 2000	Mayor, Rep. Hiraki, Sen. Bunda, and Councilmember Duke Bainum	April 17, 2000	PCTP presentation for delegation from Socialist Democratic Party of Germany
April 18, 2000	SDOT - Financial Plan	April 20, 2000	American Society of Civil Engineers
April 20, 2000	General Kenneth R. Wykle, Administrator, Federal Highway Administration	April 24, 2000	Arcadia Retirement Residence
April 26, 2000	Waikiki Ohana Workforce Focus Group #2 (hotel employees)	April 26, 2000	Representative Neil Abercrombe's staff
May 3, 2000	Chamber of Commerce Maritime Committee	May 10, 2000	Kulana Hale (senior citizens residence
May 15, 2000	Wahiawa Rainbow Club	May 15, 2000	Lanakila Senior Citizens
May 24, 2000	One Kalakaua (senior citizens residence)	May 26, 2000	Iwilei Business Community Association
April 27, 2000	SDOT - In-Town BRT	May 30, 2000	National Association of Retired Federal Employees
May 31, 2000	Congressional Delegation staff	June 5, 2000	City Department Brown Bag presentation

Source: Parsons Brinckerhoff, Inc.

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TABLE A.2-2
EISPN RECIPIENTS AND COMMENTERS

Agency or Organization	Received Copy of EISPN	Date of Comment Letter
FEDERAL AGENCIES		
Department of Agriculture, Natural Resources Conservation Service	Yes	May 6, 1999
Department of Defense		
Army Corps of Engineers	Yes	
U.S. Naval Base Pearl Harbor	Yes	May 26, 1999
U.S. Army Garrison-Hawaii	Yes	
15th CES – Hickam AFB	Yes	
Department of the Interior		
U.S. Fish & Wildlife Service	Yes	May 24, 1999
U.S. Geological Survey	Yes	May 5, 1999
National Park Service	Yes	
Department of Transportation		
Federal Highway Administration[1]	Yes	June 14, 1999
Federal Transit Administration	Yes	
Federal Aviation Administration	Yes	May 5, 1999
Coast Guard	Yes	
Environmental Protection Agency	Yes	
Federal Emergency Management Agency	Yes	
STATE OF HAWAII AGENCIES		
Aloha Tower Development Corporation	Yes	
Department of Accounting and General Services	Yes	
Department of Agriculture	Yes	
Department of Business, Economic Development & Tourism	Yes	
Energy, Resources & Technology Division	Yes	
Land Use Commission	Yes	April 29, 1999
Office of Planning	Yes	May 24, 1999
Department of Defense	Yes	June 24, 1999
Department of Education	Yes	May 6, 1999
Main Library and all libraries within the corridor	Yes	May 24, 1999
Department of Hawaiian Home Lands	Yes	
Department of Health	Yes	May 26, 1999
Clean Water Branch	Yes	
Clean Air Branch	Yes	
Solid and Hazardous Waste Branch	Yes	
Noise and Radiation Branch	Yes	
Department of Land and Natural Resources	Yes	
Commission on Water Resource Management	Yes	May 3, 1999
Historic Preservation Division	Yes	May 4, 1999 and June 3, 1999
Land Division	Yes	May 20, 1999
Parks Division	Yes	

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TABLE A.2-2 (CONTINUED)
EISPN RECIPIENTS AND COMMENTERS

Agency or Organization	Received Copy of EISPN	Date of Comment Letter
Department of Transportation		
Airports Division	Yes	May 18, 1999
Harbors Division	Yes	May 6, 1999
Highways Division	Yes	June 9, 1999
Hawaii Community Development Authority	Yes	
Legislative Reference Bureau	Yes	
Office of Environmental Quality Control	Yes	May 13, 1999
Office of Hawaiian Affairs	Yes	May 28, 1999
University of Hawaii		
Environmental Center	Yes	
Water Resources Research Center	Yes	
Facilities Planning and Management Office	Yes	
Hamilton Library	Yes	
CITY AND COUNTY OF HONOLULU AGENCIES		
Board of Water Supply	Yes	May 13, 1999
Department of Design and Construction	Yes	
Department of Environmental Services	Yes	April 30, 1999
Department of Parks and Recreation	Yes	May 24, 1999
Department of Planning and Permitting	Yes	May 26, 1999
Fire Department	Yes	May 13, 1999
Honolulu Municipal Reference and Records Center	Yes	
Police Department	Yes	May 18, 1999
OTHER INDIVIDUALS AND ORGANIZATIONS		
Hawaii Bicycling League	Yes	May 24, 1999
Hawaiian Electric Company	Yes	
Verizon Hawaii	Yes	
Leeward Oahu Transportation Management Association	Yes	May 24, 1999
Life of the Land	Yes	May 22, 1999
Oahu Metropolitan Planning Organization	Yes	May 24, 1999
The Outdoor Circle	Yes	May 18, 1999
The Gas Company	Yes	
Douglas Meller	No	May 24, 1999
Patricia Tummons	No	May 3, 1999
Decision Analysts Hawaii[2]	No	June 8, 1999

Source: City and County of Honolulu, Department of Transportation Services, June 1999.

Note: Business, environmental and neighborhood organizations, elected officials, and news media who received copies of the EISPN are not indicated on this table if they did not submit comments.

[1] Comment letter from Federal Highway Administration was in response to a May 5, 1999 letter from the Federal Transit Administration, requesting that the FHWA elect to be a cooperating agency on the Primary Corridor Transportation Project (PCTP).

[2] Comment letter from Decision Analysts Hawaii was in response to the Islandwide Mobility Concept Plan (March 1999).

TABLE A.2-3
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE EISPN AND NOI AS OF JUNE 14, 1999
(RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-1)

Name	Organization	Comment
FEDERAL AGENCIES		
Daniel Matsumoto	USDOT, FAA	No comments. Request to be included in scoping process because proposed project is adjacent to airport.
Kenneth Kaneshiro	USDA, Natural Resources Conservation Service	None
William Meyer	USGS, Water Resources Division	None
Robert Smith	USFWS	Endangered bat, waterbird, and plant species within project limits; plant species of concern in Ewa area; recommend avoiding unnecessary destruction of vegetated areas containing species Should address impacts and propose mitigation
C. K. Yokota	Department of the Navy, Pearl Harbor	None
Abraham Wong	FHWA	Preparation of the DEIS/MIS must be coordinated with OMPO Assumptions and data in DEIS must match OMPO's and those in ORTP Cost for alternatives must be determined on a regional basis LPA must be included in ORTP update or amendment Funds must be reasonably available and project must be considered with respect to other transportation priorities Tradeoffs between priority projects must be presented to stakeholders and public Highway options and all other reasonable alternatives should be included in MIS HDOT and OMPO should ensure that the study includes multi-modal alternatives that support their transportation plans for the corridor
STATE AGENCIES		
Esther Ueda	DBEDT, Land Use Commission	Include map of project areas in relation to State land use districts – project areas are designated within State Land Use Urban and Agricultural districts
Edwin Sakoda	DLNR, Commission on Water Resource Management	Stream channel alteration permits (SCAP) needed Avoid adverse Impacts on streams and disclose impacts as much as possible
Thomas Fujikawa	SDOT Harbors Division	Traffic studies associated with Sand Island needed especially at interchanges Several permits required, including those requiring BLNR approval Time required for permitting process may impact Harbors Division tenants Coordinate with HCDA Need more detailed plans for impacts to sewer lines Harbor operations could be disrupted during construction Coordinate with DLNR on Sand Island Access Road maintenance issues Coordinate with Sand Island Business Association – container yard impacts and land impacts may require amendment of several subleases and General Lease from Harbors Division

TABLE A.2-3 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE EISPN AND NOI AS OF JUNE 14, 1999
(RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-1)

Name	Organization	Comment
STATE AGENCIES (CONTINUED)		
Thomas Fujikawa (continued)	SDOT Harbors Division	Impacts to Harbor facilities; traffic flow may affect Harbors Division and shipping lanes Coordinate with Harbors Division
Paul LeMahieu	State of Hawaii Department of Education	None
Genevieve Salmonson	OEQC	Format issues -- two-sided, acronym list, color figures Include close-up neighborhood maps Endangered species – need detail and mitigation Summarize Trans2K meetings Discuss secondary impacts Mitigation measures in State final EIS must be implemented also
Don Hibbard	DLNR, Historic Preservation	Historic sites and issues – Section 106 and 4(f) treatments necessary Supply information to SHPD, then SHPD will be able to advise better on sites, significance, adverse-effect determinations, and needed mitigation Acknowledges intent to consult with OHA on Traditional/Cultural Properties Use SHPD's or City and County's GIS for historic sites locations Understands need for further work on area of potential effect (APE)
Kazu Hayashida	SDOT Airports Division	Integration with Honolulu International Airport plans/ traffic on airport access roads Suggested coordinating with Airports Division Impacts possible on Honolulu International Airport and existing utilities
Kazu Hayashida	SDOT Highways Division	Identify "stand-alone" components of Alternatives Need two Enhanced Bus/TSM Alternatives – one using city Buses, other using chartered/subsidized buses and ferries for peak periods Clarify proposed "local street bus priority measures" Address potential conflict with signal pre-emption by emergency vehicles Describe and justify project in existing Highway ROW based on benefits, costs, traffic impacts, operational requirements, and safety How will Sand Island Bypass and narrowing Nimitz affect vehicular access and harbor operations in Kewalo Basin and Honolulu Harbor? Need to preserve bicycle routes and safety What are assumptions about effect of travel time and fares on transit use (peak and off-peak)? Use constant transit fares when evaluating alternatives Compare alternatives based on following: peak/off-peak travel times of transit and private vehicles; loss of vehicular capacity; cumulative effects on traffic congestion; cumulative effects on peak vehicular trips and person-trips; transit costs not covered by fares and FTA grants; transit use by low income and elderly; land use and demographic impacts; impacts on Airport and utilities

TABLE A.2-3 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE EISPN AND NOI AS OF JUNE 14, 1999
(RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-1)

Name	Organization	Comment
STATE AGENCIES (CONTINUED)		
Kazu Hayashida (continued)	SDOT Highways Division	Consult Highways Division on improvements in highway ROW Include Highway Alternative Please send 10 copies in future
Dean Uchida	DLNR, Land Division	Improvements in flood zone should be designed with LUO Tenants on State lands should be involved in planning Suggested coordination with other agencies – SHPD, Parks, CWRM
Keith Fujio	DOE, State Library	None
Gary Gill	Department of Health	Address noise and fugitive dust during construction
David Blane	DBEDT, Office of Planning	Need comparison of ridership relative to cost projections, considering population and economic growth Identify costs of self-sustaining or subsidized bus/light rail system Consider multi-modal options, *i.e.* Bike and ferry alternatives Sand Island/Nimitz could include bike/ferry system Note wetlands in vicinity of Sand Island (map included) BMP for non-point source pollution should be discussed Consider TDM policies (reduce parking, use tolls, land use policies) Need for park-and-rides and other support facilities for transit in residential areas Redevelopment potential around transit stops
C. Sebastian Aloot	Office of Hawaiian Affairs	Need detailed archaeological/cultural info near coastal areas and appropriate mitigation Conduct Archaeological survey of area Determine eligibility of sites for NHR register Urge consultation with OHA Study gathering and religious rights in corridor Work with cultural expert rather than just archaeologist/anthropologist
Roy Price	DOD, Civil Defense	Impacts to siren warning system (there are one to five existing sirens on alignment, depending on exact infrastructure placement) Siren relocations must be planned into project
CITY AND COUNTY AGENCIES		
Kenneth Sprague	Department of Environmental Services	None
Attilio Leonardi	Honolulu Fire Department	None
Eugene Uemura	Honolulu Police Department	None
William Balfour	Department of Parks & Recreation	None
Jan Naoe Sullivan	Department of Planning & Permitting	Provide a matrix of alternatives and options being considered
Clifford Jamile	Board of Water Supply	Submit construction plans for review
Gordon Lum	OMPO	Consistency with ORTP – ORTP assumed exclusive ROW and high-capacity transit system. Does LRT have as much capacity as assumed by ORTP for rapid transit? Is it City policy to center growth in Downtown? All Oahu highway projects within ORTP must be prioritized, including those in this project

TABLE A.2-3 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE EISPN AND NOI AS OF JUNE 14, 1999
(RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-1)

Name	Organization	Comment
PUBLIC ORGANIZATIONS		
Gordon Lum (continued)	OMPO	Will project use horizon year of 2020 or coordinate with new ORTP (updated to 2025)?
Darrlyn Bunda	Leeward Oahu Transportation Management Association (LOTMA)	Segments of previously-indicated roadways for priority treatments do not appear to be included – Kamehameha Highway from Wahiawa to Radford Costs/benefits of proposed BRT alignments BRT Alternative unclear, confusing. Is there an LRT for Waikiki? Emphasis seems to be on accessing PUC. Need to serve reverse commute market to get to Leeward area also BRT should have a defined route similar to LRT #1, at least west of Pearlridge, and serve several termini Sand Island should not be studied. Too capital intensive Why are bus ramps not included in LRT Alternatives? Is it possible to mix and match portions of alternatives?
PRIVATE ORGANIZATIONS		
Mary Steiner	The Outdoor Circle	Why is Visioning Program used as justification for transportation study? Did not like format of scoping meeting Process/schedule concerns – when will LPA be announced? What if it is not best alternative based on engineering? If PUC is the origin of most trips, why study Kapolei to University? Why is Kahala not included? What impact on street trees (from project in general, from catenaries)? How will efforts to underground wires be affected?
Robin Brandt	Hawaii Bicycling League	Public participation, notification of the public – need additional opportunities for participation Access to report – publish report on Internet; use larger text and map fonts Process/schedule needs clarification What is the involvement of those outside PUC in scoping? In addition to comparing buses against cars, pedestrians, bikes, and the disabled should be considered; use disincentives & education programs on alternative transportation Make pedestrians first priority and cars last priority Discuss measures to make streets more pedestrian, bike, and disabled friendly Discuss car disincentives New transit system, including transit centers and tunnels. should include services/facilities for pedestrians, bikes, and disabled, and be accessible to all Try double-decker buses Promote bikes as circulators New freeway should not impinge on bikes and pedestrians Do not create alternate freeway routes out of local streets Need to coordinate with advocacy groups Should provide funds for studies on transportation alternatives Traffic modeling assumptions are not sufficient; assumed VMT reduction is not proven

TABLE A.2-3 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE EISPN AND NOI AS OF JUNE 14, 1999
(RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-1)

Name	Organization	Comment
PRIVATE ORGANIZATIONS (CONTINUED)		
Robin Brandt (continued)	Hawaii Bicycling League	Air quality impacts depends on VMT Social and economic issues – potential concentration of growth in primary corridor leads to environmental justice issues; who will suffer impacts of project? Natural resource issues – water use, impact on indigenous plants; do not reduce green spaces for high-density residential areas Consistency with bike plans – project boundaries are confusing because they do not match
Henry Curtis	Life of the Land	All reasonable alternatives must be considered under NEPA. Therefore, the DEIS must look at full range of alternatives possible. Add Enhanced Bus & Commuter-Based Dedicated Bicycle Lane Alternatives There should be two Enhanced Bus scenarios; one to increase efficiency for both buses and cars; one to encourage buses by developing a more efficient bus system without decreasing the level of congestion Bike Lane Alternative would use different classifications of bike lanes. Bike lanes should connect residential areas with downtown and university, such as Young Street. Reduction of lanes on Nimitz is also an opportunity. Proposes a specific dedicated bike lane route from University using Dole Street, H-1, Isenberg, Young Street, Thomas Square, Hotel Street, Capitol District, Richards, and Nimitz. Documents/sources quoted/referenced: OMPO Policy Committee; OMPO Technical Advisory Committee; OMPO Citizen Advisory Committee; OMPO Overall Work Program; Oahu Regional Transportation Plan; TEA 21; TIP; Mayor's State of the City Address (1/26/99); Oahu Trans 2K City Blueprints; Oahu Trans 2K; 21st Century Oahu; CEQ's Top 40 Questions Asked About NEPA; Major Investment Study guidelines; HRS 343; HAR 11-200 (Implementation of HRS 343); FHWA/FTA Question and Answers on Public Involvement in Transportation Decisionmaking; other documents such as Islandwide Mobility Concept Plan; among others Rather than increase the joy of driving, by having congestion, people will prefer bus. Enhanced Bus System is reasonable, viable, practical, feasible from technical and economic standpoint; it is environmentally preferable Express Bus headway should be every 15-20 min at peak, 30-45 min at non-peak Suggests two separate, linked Express Bus systems: one to Honolulu and one to Kapolei, with circulator buses Enforce 2-person HOV at $250/violation, making them more efficient, decreasing congestion Increase safety for bicycle traffic; make bicycle planning routine; install bicycle parking in activity centers. Traffic modeling considerations

TABLE A.2-3 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE EISPN AND NOI AS OF JUNE 14, 1999
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Name	Organization	Comment
PRIVATE ORGANIZATIONS (CONTINUED)		
Henry Curtis (continued)	Life of the Land	VMT and other assumptions may change due to changes in road networks and travel demand, shift in destinations (Kapolei), increased transit service may increase VMT, population growth Choice of traffic models and measures of success should be explained Account for sensitivity of models, and elasticity of demand What unusual impacts may result from project? Address cumulative and secondary impacts Air quality – primary and secondary impacts, including induced growth from all alternatives Water Resources -- primary and secondary impacts, including induced growth from all alternatives What is Public Policy? – preference for mass transit, increased reliance on autos, or expensive all-encompassing system? Need a thorough community impact assessment Include redevelopment incentive for Kakaako as secondary impact of transit Will transit hubs spur nearby development? Will improvements follow same pace as growth in population and tourism? Who pays for new infrastructure – residents, new arrivals? Will project strengthen or divide communities? Will rebuilding Natatorium, cruise ship berths & associated parking encourage vehicle use? Will improvements spur growth along corridor? Secondary impacts to PUC EIS due to Sand Island/Nimitz waterfront development Will increase in tourism encourage more vehicle use? How do Enhanced Bus and Dedicated Bike Alternatives compare to other alternatives in terms of air quality, noise, water resources, aesthetics, etc? Will project increase noise in suburbs/agricultural lands Will water quality change due to secondary growth? Are visual impacts afterthoughts or part of planning process? How? What are gridlock effects from all alternatives, and what policies will reduce gridlock? Can trolley be expanded to elevated rail (1992 plan)? Would privatization of bus system reduce congestion? Would using Dillingham or Nimitz for one-way during peak period reduce congestion? Would Employer Trip Reduction (ETR) plans reduce congestion? Process/procedure – explain timing of project Address how to get people to carpool/use zipper lane Will federal money be available for Sand Island? Why does City's plan include a state highway financed by federal money? Also, City versus State plans raise jurisdictional questions. How can state's Zipper Lane be part of City's Plan? City plans include state programs and enforcement plans.

TABLE A.2-3 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE EISPN AND NOI AS OF JUNE 14, 1999
(RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-1)

Name	Organization	Comment
PRIVATE ORGANIZATIONS (CONTINUED)		
Henry Curtis (continued)	Life of the Land	Would Sand Island/Nimitz increase vehicle use? Does PUC plan include express buses outside PUC? Waiawa and Iroquois Point are included in PUC – why not Kahala? Why does MIS study express from suburbs outside PUC? (beyond scope) What are acceptance criteria of FHWA/FTA for NEPA document? Does plan conform with DOT plans? Include ideas from 21st Century Vision, Oahu Trans 2K, and related scoping - how ideas were utilized/screened Explain weighting of different proposals Include baseline plans for rail/trolley Explain effects on residential/business communities of transit Consider economic justice (commercialization of poorer neighborhoods) in siting transmission facilities Is the following a positive statement about rural lifestyles: "Even something relatively simple like having streets without sidewalks can affect community character." Islandwide Mobility Concept Plan. page 4 (What is assumption about sidewalks?) Will there be opportunities for public participation in preparation of MIS? What is source of growth projections? Why move people into Downtown rather than Second City (Kapolei)? Use of overhead lines should be rejected Can electric vehicles be used? Does federal matching funds depend on LPA selected? What is definition of sustainability?
Patricia Tummons		Consider scenic viewplanes Urban sprawl, encroachment into rural areas Emissions from alternatives Traffic modeling necessary
Douglas Meller		Eliminate some bus stops to make routes more efficient Charter private vehicles for peak hour Regulate parking fees Separate Sand Island from project Traffic modeling necessary – travel times, trip generation
Bruce Plasch	Decision Analysts Hawaii, Inc.	Document contains many assumptions about sprawl Define "sprawl" Document indicates contradiction of/one-sided view of sprawl and centralized development. It says Oahu has both widespread sprawl and centralized development. What are benefits and costs of sprawl versus compact development Discussion is moot: many key development decisions have been made by government already Economic decline of commercial areas – which communities? Disputes claim that autos cause economic decline in some areas

TABLE A.2-3 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE EISPN AND NOI AS OF JUNE 14, 1999
(RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-1)

Name	Organization	Comment
PRIVATE ORGANIZATIONS (CONTINUED)		
Bruce Plasch (continued)	Decision Analysts Hawaii, Inc.	Development and service costs – sprawl is costly, but higher residential density is not as attractive to buyers; suburban development is not as costly as PUC redevelopment and is easier to locate than PUC in-fill development. Infrastructure planning – document relies on unsubstantiated claim that sprawl is costly and must be subsidized by other neighborhoods. Recommends reading on sprawl and infrastructure financing Contradiction between City policy on urbanizing agricultural lands (in Ewa DP) and protecting prime agricultural lands from sprawl, as stated in document. Economic and environmental costs of agriculture are not any less than that of urban sprawl Factors affecting suburban growth are not limited to transportation policies. Includes development policies and consumer preferences Ewa and Central Oahu would have lower housing prices even without government intervention, due to lack of established communities and services Strategy for the PUC – assumed number of new PUC homes is too high; regardless, PUC should be redeveloped Need to clarify to the public that transportation has land-use development implications, due to mobility issues Implementation of the plan must be realistic Computers and electronic communications may change travel demand and development patterns Extensive network of freeways should include highways Discussion of benefits & costs of automobile travel is biased; does not address benefits of auto travel Is it accurate to use 350 ft/auto as estimated area required for home-based vehicles? Parking area is often shared use. Marginal, sunk, and total costs associated with auto travel should be recognized Use unused equipment and capacity (including carpooling) during peak periods Use road pricing - economic incentives/disincentives to use scarce highway capacity

Source: Parsons Brinckerhoff, Inc., August 2000.

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TABLE A.2-4
SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS

Name and Organization	Comment	Response *
Darrlyn Bunda, Leeward Oahu Transportation Management Association	Favored extending the LRT alignment to Waiawa Interchange.	The BRT Alternative, which has since replaced the LRT Alternative, has an In-Town component that goes as far as the Middle Street Interchange. There is an additional Regional BRT component that would service riders as far as Ewa/Kapolei.
	Waiawa Interchange needs to be reconfigured to serve buses/HOVs and to provide better access to the community, such as Leeward Community College.	Under the BRT Alternative, H-1 around the Waiawa Interchange would be widened and improved with a PM zipper lane. Section 2.2.3 discusses this and other improvements to the existing freeway system in detail.
Todd Boulanger, Na Kama Hele	Requested analysis of how the alternatives integrate bicycling and pedestrian trips.	Both SDOT and DTS have developed master plans to enhance the network of bicycle facilities and increase bicycling as a serious transportation mode for some travel markets. Improvement of bicycle facilities is included in all of the alternatives, although the BRT Alternative would do the most to improve bicycle facilities. However, pedestrians and bikes alone cannot satisfy all of the travel markets that must be accommodated. Chapter 1 discusses the project's purposes and needs, which include making the PUC more pedestrian friendly, and Chapter 4 discusses all modes of transportation. Investments in transit systems promote the pedestrian and bicycles modes as viable modes of travel. DTS will also continue to support programs to foster alternative transportation, such as the hub-and-spoke bus system and traffic calming, and Vanpool.
	Requested consideration of biking as a low cost area circulator.	Both SDOT and DTS have developed master plans to enhance the network of bicycle facilities and increase bicycling as a serious transportation mode for some travel markets. Improvement of bicycle facilities is included in all of the alternatives. Pedestrians and bikes are very much a part of the TSM and BRT Alternatives, but they alone cannot satisfy all of the travel markets that must be accommodated.
	Requested analysis of bikes and pedestrian access impacts along certain corridors, such as the tunnel, King Street and Kapiolani Boulevard.	Bicycle and pedestrian access is described in Sections 4.5 and 4.6.
	Requested analysis of impacts to the safety of pedestrians and cyclists from articulated buses as opposed to shorter or double deck buses.	Bicycle and pedestrian access is described in Sections 4.5 and 4.6.
	Questioned predicted reduction of regional vehicle miles traveled (VMT) from the project.	Extensive traffic modeling was done as part of the planning process. See Chapter 4 for details.
	Requested that disincentives to driving (e.g., road pricing, etc.) be included as alternatives, as well as measures to make walking as the preferred mode within the city.	Travel Demand Management (TDM) programs are included in the alternatives, but they are not expected to fully address projected increases in travel demand in the primary transportation corridor. Improved transit service would encourage people to use their cars less. The use of specific travel disincentives is a policy decision to be made by the City Council.

TABLE A.2-4 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS

Name and Organization	Comment	Response *
Todd Boulanger, Na Kama Hele	Requested analysis of air and water quality impacts.	Impacts to air quality and water quality are discussed in Sections 5.5 and 5.8, respectively.
	Requested analysis of the socio-economic and environmental impacts on poor families having to depend on automobiles for their transportation.	Environmental justice issues are addressed in Section 5.3.
	Requested that the project conducts a more extensive and diverse public outreach program for scoping, and gave suggestions on how this can be accomplished.	Appendix A summarizes the efforts that have been made to provide opportunities for public participation. Comments from the public are welcome at any point. However, to be part of the official record, comments on the Draft EIS need to be made by the close of the comment period on the Draft EIS.
	Requested analysis of how bus fare increases affect future ridership, road congestion, land use, pollution, parking demand and the success the alternatives.	Financial plans are discussed in Chapter 6, and travel demand is discussed in Chapter 4.
Donald Lubitz	Suggested that right-of-way or corridor be reserved now in anticipation that an expanded transit system would be needed in the future.	Because of existing development patterns in the PUC, the rights-of-way of future transportation systems are primarily the existing transportation rights-of-way. This is why the need is to increase people-carrying capacity within the existing transportation rights-of-way.
	Suggested that the City transit system be used to support education programs for visitors and residents (e.g., provide transportation to education sites).	The PCTP would serve several travel markets, including students and visitors.
W-K Luke	Requested that public places of the project (e.g., transit centers) include amenities for socializing, and cultural elements consistent with area (e.g., Chinatown).	Transit centers and other public spaces included in the project would be designed to be pedestrian-friendly and contribute to a sense of community. Transit centers and stops in special districts such as Chinatown would be designed to blend in and enhance the existing cultural setting.
	Requested spot improvements to improve bus service.	Refinements to the existing bus system are made on an ongoing basis as the need arises.
Wendell Lum	Requested cost and funding information and analysis of impacts to the economy.	A financial analysis is provided in Chapter 6. Impacts on the economy are discussed in Section 5.1.
	Suggested that transportation investment be in the Central and Leeward areas where residential growth is occurring.	Transportation investments will be made throughout the primary transportation corridor. These investments are intended to help facilitate growth in Ewa and the PUC.
Christen Mitchell	As part of the No-Build, suggested a mixed-use land use pattern, and a continuous bikeway through the corridor.	The transportation improvements contained in the No-Build Alternative would do less than the other alternatives to help foster a mixed land use pattern. The transportation improvements in the No-Build would encourage continued suburbanization and loss of open space. The bicycle facilities in the existing State and County Bicycle Master Plans are included in the No-Build Alternative.
	Suggested private-public partnerships for mixed-use development at transit stations.	There are several ways to encourage "joint development" at transit centers and transit stops. Public-private partnerships are certainly being considered.

TABLE A.2-4 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS

Name and Organization	Comment	Response *
Christen Mitchell	Requested analysis of transportation malls' impact on the surrounding community, pedestrian access, safety and crime, and landscaping.	The social impacts of the project on the neighborhoods is discussed Section 5.3. Pedestrian access issues are addressed in Section 4.6. Landscaping issues are addressed in Section 5.7. In general, transit centers and transit stops are intended to help focus growth along the alignment and help develop a pedestrian and transit-oriented setting.
	Criticized advertising for the scoping meeting.	Appendix A summarizes the efforts that have been made to provide opportunities for public participation, including comments from the business community.
	Critical of overhead wires and motorized ferries on the Ala Wai.	Neither overhead lines nor ferries on the Ala Wai are proposed as elements of the PCTP.
Michelle Matson	Requested that potential impacts to businesses be considered in planning the project.	General economic impacts are discussed in Section 5.1. Chapter 4 discusses impacts on parking areas and loading zones.
	Supports Sand Island Bypass and Nimitz Parkway elements of the project for waterfront development.	The Sand Island component of this project is being addressed in the current update to the Regional Transportation Plan. It is not part of this project at the current time.
Lynne Matusow	Requested deleting the LRT and Ala Moana Waterfront Loop elements from the alternatives.	The LRT Alternative has been replaced by the BRT Alternative. The Ala Moana Waterfront Loop is no longer part of the project.
	Suggested a transit system similar to Curitiba, Brazil.	The In-Town BRT system would be a transit system similar to Curitiba, Brazil, adapted to local conditions. The Curitiba situation is in some ways simpler because more space is available to construct new transportation systems.
	Project should consider that certain streets are used for parades and block parties.	The route of the In-Town BRT system would be modified to accommodate special events. This topic is discussed in more detail in Section 4.6.
	Does not favor the use of overhead wires for the LRT.	Overhead lines are not proposed as a part of the PCTP. The LRT Alternative has been replaced by the BRT Alternative.
	Transit improvements should be extended into Waikiki.	The In-Town BRT would extend throughout Waikiki.
Dick Poirier	Supported congestion pricing and other types of user fees, such as charging for accessing the HOV lanes, as a viable alternative.	Travel Demand Management (TDM) programs are included in the alternatives, but they are not expected to fully address projected increases in travel demand in the primary transportation corridor. Improved transit service would encourage people to use their cars less. The use of specific travel disincentives is a policy decision to be made by the City Council.
	Requested the Ewa terminus of LRT Alternative be extended to the Waiawa Interchange area.	The BRT Alternative would accommodate future phased extensions of the system if viable.
	Requested that alternatives for road pricing be studied.	Travel Demand Management (TDM) programs are included in the alternatives, but they are not expected to fully address projected increases in travel demand in the primary transportation corridor. Improved transit service would encourage people to use their cars less. The use of specific travel disincentives is a policy decision to be made by the City Council.

TABLE A.2-4 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS

Name and Organization	Comment	Response *
Richard Port	Expressed concern about the cost of the alternatives, noting that revenues do not cover operating costs and that the transit system would compete with private operators.	Methods of financing the construction and operation of the alternatives are discussed in Chapter 6.
	Favors expanding the existing bus system, including use of articulated buses.	All of the alternatives would expand the bus system and use articulated vehicles. They vary by the degree and means that they would use to improve transit service.
Richard Quinn	Suggested decentralized transportation systems geared to individual neighborhoods because advances in technology would result in a greater degree of trips within the neighborhood for working and shopping.	While land use changes that would improve the ability of walking to satisfy more trip purposes are desired, walking alone is not expected to address all of the expected increase in travel demand.
Milton Ragsdale	Suggested new alternatives and modifications to certain elements of proposed alternatives - fixed rail along H-1 median from Pearlridge Shopping Center to Kahala Mall, with a subway from Middle Street Transit Center to Ala Moana, and a BRT connecting University/King Transit Center to Manoa Recreation Center or UH quarry area.	These suggestions would be less cost-effective than the alternatives currently under study. Chapter 2 discusses the evolution of the alternatives that receive detailed assessment.
	All BRTs and LRTs should have space or racks for bicycles.	Bicycles will be accommodated on the BRT vehicles.
William Rosa	Requested bus service be more frequent, and that traffic calming be used in downtown areas.	Chapter 2 describes the frequency of bus services for each of the proposed alternatives. The BRT Alternative would provide the greatest frequency of transit service. Traffic calming would continue to be an option wherever an opportunity for implementation is identified.
Linda Starr, Neighborhood Board #2, Kuliouou Kalani Iki	Does not favor special bus ramps- because it would waste resources.	Special bus ramps have been included in the BRT Alternative to decrease travel times for transit patrons.
	Requested studying metering at freeway on ramps.	The Hawaii Department of Transportation has been studying ramp metering.
	Feels that people from Kapolei to Pearlridge would not want to change modes, and that they would want the convenience of riding an express bus into town.	All of the alternatives include selected express routes. Some degree of transfers and modal switches would be necessary for the system to work cost-effectively.
Mary Steiner, The Outdoor Circle	Requested clarification on certain elements of the project, such as details of the transit centers, landscape plans, impact to street trees, and project limits.	Project elements are described in Chapter 2. Landscaping and impacts to trees would be minimized to the extent practicable, and are described in Section 5.7. Further details would be developed in subsequent planning after City Council selects an LPA.
	Criticized lack of public participation.	Appendix A details the extent of efforts made to solicit public participation.

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TABLE A.2-4 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS

Name and Organization	Comment	Response *
Clifton Takamura	Provided suggestions on how to improve existing bus system.	Improvements to the bus system occur on an ongoing basis.
	Suggested using the old OR&L right-of-way as an alignment..	The alignment of the OR&L right-of-way is not appropriate for modern, high-speed transit vehicles. Some of the right-of-way is being proposed for bicycle use.
	Asked whether the proposed transit system will be a moneymaker, and whether it will be used by visitors.	Publicly-funded transit systems are not intended to made a profit. Creation of a profit is not one of the project purposes. Both visitors and residents are expected to use transit under any of the alternatives.
	Favored a system that uses a combination of LRT and buses.	The LRT has been replaced by the BRT Alternative, which would have In-Town and Regional systems that combine traditional buses and more technologically advanced energy-efficient vehicles.
Shannon Wood	Suggested expansion of alternatives to include more freeways, water-based transportation, and expansion of LRT system to Mililani, Hawaii Kai and Waikiki.	Chapter 2 describes the evolution of the alternatives that receive detailed treatment in the MIS/DEIS.
	Requested impacts analysis in the event of a natural disaster, and if the price of fossil fuel rises substantially.	Improved transit would enhance mobility during a natural disaster and if fossil fuel prices rise substantially.
Jim Yamamoto	LRT system should serve Bethel Street.	The LRT has been replaced by the BRT Alternative. There would be a transit stop in the vicinity of Bethel Street.
	Requested analysis of why people drive.	People travel for many reasons, and these factors have been included in the travel demand forecasts prepared for this project.
	Suggested multi-modal efforts to address transportation issues.	The TSM and BRT Alternatives are multi-modal alternatives, as described in Chapter 2.
Brian Yoshida, Moanalua Community Association	Supported the LRT alternative, but would also like to see the project include roadway widening on the H1 Freeway, and extending the Nimitz viaduct to Downtown.	The LRT Alternative has been replaced by the BRT Alternative. The H1 Freeway widening and Nimitz viaduct have been or are being considered under separate projects.
	Requested analysis of disruption of traffic during construction, projected ridership of different alternatives, and projected fares for the LRT.	Construction-phase impacts, including impacts on traffic, are discussed in Section 5.12. Ridership projections are presented in Chapter 4. Fares and project financing plans are presented in Chapter 6.
Pamela Young	Additional right-of-way requirements should be disclosed.	Right-of-way requirements are discussed in Section 5.2.
	Questioned the need for LRT, especially since the Leeward and Central Oahu areas contain a third of Oahu's population.	The LRT Alternative has been replaced by the BRT Alternative. Chapter 1 discusses the need for the project. There is a substantial imbalance now and in the future between travel demand and transportation system capacity for travelers in the Primary Transportation Corridor, which includes Leeward and the southern portion of the Central District.

TABLE A.2-4 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS

Name and Organization	Comment	Response *
Anonymous	Criticized the lack of opportunity for exchange of comments, questions and answers before the whole audience.	Comment noted.
	Expressed frustration on the lack of progress on needed transportation improvements.	DTS shares the commenters frustration about the lack of progress on this important quality of life issue.
	Supports a "traditional" looking LRT system rather than a "modern" looking LRT system.	The LRT Alternative has been replaced by the BRT Alternative. The final look of the BRT vehicles, if this alternative is selected, has not yet been selected.
Unknown, Agency	Will project be used to assist in urban planning?	Yes. Project is coordinating with current planning efforts to update the PUC DP, sustainability plans of other DP areas and the recently completed Ewa DP. Overall land use objectives are to encourage urban growth in the PUC and Ewa, and discourage suburban sprawl in other areas. Transportation is one tool to help facilitate these land use objectives. Improved transit service will make in-town living more attractive.
	Need land use controls to discourage/prevent gentrification around future transit stations	Will ensure that future development is consistent with community visions and desires.
	Is the third light rail transit LRT Alternative a first phase of the first and second LRT Alternatives?	The LRT Alternative has been replaced by the BRT Alternative.
	Does BRT Alternative include LRT from downtown to Waikiki?	None of the alternatives moving forward include LRT technology.
	Do any of the alternatives include service between the airport and Waikiki?	Ridership estimates will include all travel markets, including demand between the airport and Waikiki. However, addressing the airport/Waikiki travel market is not a major purpose of this project. Airport travelers would need to get to the Middle Street Transit Center to access the system.
	Is modifying the H-1 Zipper Lane to carry P.M. peak traffic possible?	Yes. The BRT Alternative includes a PM zipper lane.
	Is it possible to come up with defensible ridership projections?	Ridership projections are described in Chapter 4.
	Is there a cost per new rider threshold for receiving federal funds as a transit "new start"?	To receive federal funding, a project must be on the federal "new start" list. There are many rating criteria that score projects on the "new start" list, including cost per new rider. The FTA will use many other criteria, such as ridership, to evaluate the project. After determining eligibility, the project would compete with other transit projects across the nation for federal funds.
	Transit center locations in Waipahu should follow the Waipahu Special Area Plan.	There are no site-specific locations for the Waipahu transit centers. However, they will be located strategically to serve BRT treatments on Fort Weaver Road and other roadways.
	Has a site for the LRT maintenance yard for the Waikiki/Downtown line been selected?	The LRT Alternative has been replaced by the BRT Alternative. In-Town BRT vehicles would be maintained at the Middle Street Transit Center.

TABLE A.2-4 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS

Name and Organization	Comment	Response *
Unknown, Agency	Will lanes be used exclusively for the LRT?	The LRT Alternative has been replaced by the BRT Alternative. The In-Town BRT would use both exclusive and semi-exclusive lanes.
	Disagreed that communities do not want more lanes for automobiles.	Comment noted.
	Will there be any grade-separated sections for the LRT?	The LRT Alternative has been replaced by the BRT Alternative. No grade-separations are proposed.
	People are asking for a more balanced transportation system.	That is what this project is trying to accomplish. Chapter 1 describes the project purposes and needs in more detail.
	Will this project do anything to alleviate the problem of motorists using residential side streets to avoid congestion on the main arterial streets?	By enhancing transit service, more people would be encouraged to use transit instead of private automobiles.
	What are bus ramps?	Ramps that are restricted to buses and certain vehicles, such as vanpools. Their objective is to provide transit priority, thereby rewarding transit patrons with shorter travel times.
	The DPs contain lists of cultural assets and resources, and important viewplanes and visual resources.	The information in the DP's was used in the preparation of the MIS/DEIS.
	What are the costs of the alternatives?	Cost estimates are discussed in Chapter 2.
	What are committed projects?	Projects that are listed in the Oahu Regional Transportation Plan as proposed for completion by the year 2005.
	What is the time horizon for this project?	Planning is based on travel demand forecasts and land use projected for 2025.

Source: Parsons Brinckerhoff, Inc., August 2000.

* Section numbers in responses refer to sections in the MIS/DEIS.

A.3 MIS/DEIS REVIEW PERIOD

The FTA approved the MIS/DEIS for public circulation on August 16, 2000. The Hawaii Office of Environmental Quality Control (OEQC) also approved the document for public distribution. Printed copies of the document were distributed to the public, libraries, community groups, and local, State and federal agencies for review. A separate volume of technical drawings was available for public examination at libraries and the DTS, and was also available upon request. The document, including the technical drawings, was also available on CD-ROM upon request. Those who submitted comments on the Notice of Intent to Prepare an EIS (NOI), published in accordance with the National Environmental Policy Act, or the Environmental Impact Statement Preparation Notice (EISPN), published in accordance with Chapter 343, Hawaii Revised Statutes, were also sent printed copies. Table A.3-1 summarizes the MIS/DEIS review process.

TABLE A.3-1
MIS/DEIS REVIEW PROCESS

Activity	Date	
MIS/DEIS approved for circulation by FTA	August 16, 2000	
Distribution of MIS/DEIS	August 23, 2000	
Notice of MIS/DEIS availability in the Federal Register (public review period officially starts)	September 8, 2000	
Notice of MIS/DEIS availability in the OEQC, The Environmental Notice	September 8, 2000	
Legal notice of MIS/DEIS availability and public hearing in Midweek	September 13, 2000 and September 27, 2000	
Distribution of notice of availability of MIS/DEIS and public hearing to project mailing list	September 11-13, 2000	
Meetings of the City Council's Transportation Committee	September 25, 2000	Kapolei
	October 5, 2000	Waikiki
	October 19, 2000	Waimalu
	October 26, 2000	Downtown
Newspaper display ads for public hearing	October 4, 2000	Midweek
	October 9, 2000	Advertiser
	October 10, 2000	Star-Bulletin
Formal Public Hearing, Neal Blaisdell Center	October 12, 2000	
Close of the public review period	November 6, 2000	
Resolution selecting LPA introduced at City Council	November 8, 2000	
Resolution selecting LPA reported out of City Council Transportation Committee	November 14, 2000	
Resolution selecting LPA adopted by full City Council	November 29, 2000	

Source: Parsons Brinckerhoff Quade & Douglas, Inc., January 2001.

Notices of the availability (NOA) of the MIS/DEIS and information on the public hearing were provided through direct mailings (about 10,000 addresses); a legal notice in Midweek; and display advertisements in Midweek, the Honolulu Advertiser, and the Honolulu Star-Bulletin. The document availability was also given substantial media coverage including coverage by local television stations. The public notice procedures complied with "The Oahu Metropolitan Planning Organization (OMPO) Guide to Public Involvement, Appendix E," adopted on April 2, 1997 by the OMPO Policy Committee; Title 23 Code of Federal Regulations, Section 771 (23CFR771); and Hawaii Revised Statutes Chapter 343.

The Transportation Committee of the Honolulu City Council sponsored four public hearings across the project's study area after the MIS/DEIS was issued. These Committee meetings enhanced the public's ability to provide comments directly to the City Council pertaining to the pending selection of a Locally Preferred Alternative (LPA). The City Council's task in selecting an LPA was to decide between a No-Build Alternative, a

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Transportation System Management (TSM) Alternative, and a Bus Rapid Transit Alternative. The full City Council selected the BRT Alternative as the LPA on November 29, 2000, by adopting Resolution No. 00-249 at a special City Council meeting.

A.4 COMMUNITY INVOLVEMENT ACTIVITIES PRIOR TO THE SDEIS

During the LPA discussions, the City Council directed the DTS to continue public dialogue on the project. Community working groups were formed to provide a forum for open dialogue between project sponsors and neighborhood, civic, business and other organizations so that environmental and transportation issues, and refinements to project proposals could be discussed. Section A.4.1 discusses the working group process in detail.

A Round Five Oahu Trans 2K meeting was held on August 14, 2001. The meeting included a community open house and an informational briefing on the working group process and BRT project refinements.

In addition to the working group process, the project team members conducted nearly 200 meetings with numerous individuals, agencies, and organizations between January 2001 and the publication of the SDEIS.

A project website, <www.oahutrans2k.com>, is used to disseminate information. It is updated to provide the public with the current project status.

During the period between the publication of the MIS/DEIS and SDEIS documents, three Oahu Trans 2K Progress Reports (newsletters) were published and distributed. These progress reports were distributed to over 10,000 individuals via the mail and its availability at public hearings and working group meetings.

A.4.1 Working Groups

Working groups were formed in 2001, and provided a forum for open dialogue between project sponsors and neighborhood, civic, business and other organizations. They provided a constructive forum in specific geographic areas along the corridor, where specific opportunities were discussed while simultaneously providing a greater in-depth understanding about BRT and what it means for the community. Environmental and transportation issues and refinements to project proposals were discussed. Five Working Groups were formulated based on geographic area. In addition to the original five working groups, a sixth working group was formed in July 2002 for the Aliamanu/Salt Lake/Foster Village area in response to concerns that arose within that community. The Working Groups and their associated areas are presented below.

1. **Pearl City/Aiea** - Waiawa Interchange to Aloha Stadium/Pearl Harbor
2. **Kalihi** - Middle Street to River Street
3. **Downtown/Kakaako** - River Street to Ala Wai Canal
4. **Mid-Town/University** - Richards Street to UH-Manoa
5. **Waikiki** - Ala Wai Canal to Kapahulu Avenue
6. **Aliamanu/Salt Lake/Foster Village** – Aloha Stadium/Pearl Harbor to Middle Street

Working group members were responsible for attending meetings, reporting back to their representative organizations, and bringing resulting feedback to the working group meetings. The working group process resulted in project changes that were presented in the SDEIS. The following sections briefly describe the participants, process, and issues resolved at each of the six working groups.

A.4.1.1 Pearl City/Aiea Working Group

Participants in this Pearl City/Aiea Working Group included representatives from: Aiea Community Association, Aiea Neighborhood Board #20, Aloha Stadium Authority, Hawaii Transportation Association,

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Leeward Oahu Transportation Management Association, Newtown Estates Community Association, Oahu Transit Services, Pearl City Neighborhood Board #21, St. Timothy's Episcopal Church, State Department of Transportation, US Navy, and Councilmembers Duke Bainum and Gary Okino. This working group met five times during March – May 2001.

The discussions of this working group resulted in major changes to the locations for transit centers and BRT ramps. Instead of locating a transit center at the Kamehameha Drive-In site, a new plan for an Aloha Stadium transit center was chosen. The two proposed BRT ramps at Kaonohi Street and Radford Drive were eliminated and the Luapele Drive ramp was added. Another idea from this working group was to create a reversible contra-flow bus lane along Kamehameha Highway to provide service to Aiea and Pearl City, along with two community oriented transit centers. The Kamehameha Highway contra-flow lane and community transit centers are being advanced as projects separate from the PCTP.

A.4.1.2 Kalihi Working Group

Participants in the Kalihi Working Group included representatives from the following businesses, organizations, and agencies: Blood Bank of Hawaii, Bob's Bar-B-Que, Castle & Cooke Properties, City Square Management, Eki Cyclery, FALEA, Hawaii Construction Industry Association, Hawaii Teamsters & Allied Workers, Hawaii Transportation Association, Honolulu Community College, Kalihi-Palama Neighborhood Board #15, Kalihi-Palama Vision Team, Kamehameha Schools, Lanakila Health Center, Marukai Corporation, New Hope All Nations, Oahu Transit Services, Popeye's Chicken, State Department of Transportation, York & Company, and Councilmembers Duke Bainum, Jon Yoshimura, and Romy Cachola. This group met seven times during March – June 2001.

Several significant refinements were adopted in response to the working group's concerns about vehicular access. Traffic lanes on Dillingham Boulevard will be widened to 18 feet between Puuhale Road and Waiakamilo Road, and bus pullouts will be built between Waiakamilo Road and Kaaahi Street. Left turns and U-turns will be permitted at signalized intersections, and parallel streets such as Colburn and Kaumualii Streets will be improved for alternate access. Construction mitigation plans will be developed in coordination with the community and will be implemented to minimize the impact on drivers and businesses.

A.4.1.3 Downtown/Kakaako Working Group

Participants included representatives from the following organizations and agencies: Ala Moana-Kakaako Neighborhood Board #11, Ala Moana Center, Aloha Tower Development Corporation, American Institute of Architects, AM Partners, Chinatown Merchants Association, Downtown Neighborhood Board #13, Hawaii Bicycling League, Hawaii Community Development Authority, Hawaii Children's Discovery Center, Hawaii State Federal Credit Union, Hawaii Teamsters & Allied Workers, Hawaii Transportation Association, Iolani Palace, Kalihi Business Association, Kakaako Improvement Association, Kamehameha Schools, Land Use Research Foundation, Oahu Metropolitan Planning Organization - Citizen Advisory Committee, Oahu Transit Services, Pacific Resource Partnership, Scenic Hawaii, Sierra Club Hawaii Chapter, State Department of Accounting and General Services, State Department of Transportation, Straub Clinic & Hospital, Outdoor Circle, Victoria Ward Centers, and Councilmembers Duke Bainum and Jon Yoshimura. This group met seven times during February – June 2001.

Working group discussions led to several changes in this area of the In-town BRT's alignment. An entirely new branch, the Kakaako Makai branch along Ilalo Street, was created to accommodate the growing demands in this developing waterfront area. Additionally, the BRT route was realigned to use Pensacola Street instead of Ward Avenue.

A.4.1.4 Mid-town/University Working Group

Participants in the Mid-town/University Working Group meetings included representatives from: Ala Moana-Kakaako Neighborhood Board #11, Ala Moana Center, Convention Center Authority/Hawaii Tourism Authority,

Diamond Head/Kapahulu/St. Louis Neighborhood Board #5, Hawaii Bicycle League, Hawaii Community Development Authority, Hawaii Transportation Association, Iolani Palace, Kamehameha Schools, Keeaumoku Super Block - Little Britain Holdings, Makiki-Tantalus Neighborhood Board #11, Manoa Neighborhood Board #7, McCully-Moiliili Neighborhood Board #8, Neal Blaisdell Center, Our Redeemer Lutheran Church, Straub Clinic & Hospital, Outdoor Circle, UH Facilities Planning & Management, UH Lab School, and Councilmembers Duke Bainum, Andy Mirikitani, and Jon Yoshimura. This working group met seven times during March – July 2001.

The discussions of this working group resulted in realignment of a section of the UH Manoa branch from Ward Avenue to Pensacola Street, and affirmation of the location of the terminus at Sinclair Circle. Additional discussions focused on station designs and on-street parking spaces throughout this area's neighborhoods.

A.4.1.5 Waikiki Working Group

Participants in this working group included representatives from: American Institute of Architects, ENOA Tours, Hale Koa Hotel/Fort DeRussy, Hawaii Hotel Association, Hawaii Teamsters & Allied Workers, Hawaii Transportation Association, HERE Local 5 AFL-CIO, Hilton Hawaiian Village Beach Resort & Spa, Honu Group, Hyatt Regency Waikiki Hotel, Kamehameha Schools, Oahu Transit Services, Outrigger Enterprises, Pauahi Management Corporation, Renaissance Ilikai Waikiki Hotel, Sheraton Hotels & Resorts/Kyo-ya Co., State Department of Transportation, State Department of Business, Economic Development and Tourism, SUPERSTAR Hawaii Transit Service, Tiffany & Company, United Laundry Service, Waikiki Beach Marriott Resort Hotel, Waikiki Improvement Association, Waikiki Livable Community Project, Waikiki Neighborhood Board, Waikiki Residents Association, Waikiki Trade Center, and Councilmember Duke Bainum. This group met six times during August 2001 – April 2002.

Several refinements to the project resulted from the discussions of this working group, including changes in lane configurations, ideas for pedestrian enhancements, and consideration of freight and passenger loading. Refinements incorporated into the project include: semi-exclusive curbside lanes throughout Waikiki, most of which will be shared with private buses and shuttles; sidewalk widening, landscaping and loading bays added to Kuhio Avenue; and re-striping and median modifications to provide an additional lane in each direction for the BRT on Ala Moana Boulevard.

A.4.1.6 Aliamanu/Salt Lake/Foster Village Working Group

The sixth working group was formed in response to concerns from the community regarding the proposed Aloha Stadium Transit Center and Luapele Drive BRT ramp. One meeting was held on July 24, 2002 at Makalapa Elementary School. Those represented at the meeting included: Aiea Neighborhood Board #20, Aloha Stadium Authority, East Foster Village Community Association, Foster Village Community Association, Oahu Transit Services, Protect the Planet, State Department of Transportation, US Navy, and Councilmembers Romy Cachola and Gary Okino.

Discussion focused on the design and operation of the Luapele Drive ramp and Aloha Stadium Transit Center, plus the project schedule. No specific refinements to the project were required as a result of this working group meeting. Ongoing coordination with stakeholders and residents will be maintained.

A.4.2 SDEISPN and NOI

The project refinements from the working group process and comments received on the MIS/DEIS resulted in the City initiating an SDEIS process. The DTS proposed to refine the LPA to include new and modified components, which the City Council endorsed on August 1, 2001 via City Council Resolution No. 01-208.

The DTS prepared a SDEISPN that was published in the August 23, 2001 The Environmental Notice, an OEQC publication. The SDEISPN for the SDEIS was also distributed to the same individuals and entities that

received the MIS/DEIS. The SDEIS NOI was published in the September 26, 2001 Federal Register. Table A.4-1 lists the agencies/individuals that have commented on the SDEISPN. Table A.4-2 summarizes the comments received. Exhibit A-2 includes reproductions of the original letters.

In addition to the working group meetings, the project team members have met with numerous individuals, agencies, and organizations. Nearly 200 meetings were conducted from January 2001 to March 2002 (see Table A.4-3).

TABLE A.4-1
SDEISPN COMMENTERS

Elected Official, Agency, or Organization	Comment Letter Date
UNITED STATES	
Senator Daniel Akaka, United States Senate	September 7, 2001
Department of the Army	August 30, 2001
Federal Aviation Administration	September 14, 2001
STATE OF HAWAII	
Office of Environmental Quality Control	August 22, 2001
Hawaii Community Development Authority	August 24, 2001
Commission on Water Resource Management	August 24, 2001
Department of Health	August 28, 2001 and October 2, 2001
Department of Education	August 31, 2001
Land Use Commission	September 4, 2001
Department of Land and Natural Resources, State Historic Preservation Division	September 7, 2001 and September 19, 2001
Department of Land and Natural Resources, State Parks Division	September 10, 2001
Housing and Community Development Corporation of Hawaii	September 12, 2001
Aloha Tower Development Corporation	September 21, 2001
Department of Accounting and General Services	September 21, 2001
University of Hawaii	September 21, 2001
CITY AND COUNTY OF HONOLULU	
Gary Okino, City Council	September 19, 2001
Police Department	September 12, 2001
Fire Department	September 13, 2001
Board of Water Supply	September 14, 2001
Department of Planning and Permitting	September 19, 2001
ORGANIZATIONS	
Harbor Square Condominium Association	September 21, 2001
Kakaako Improvement Association	September 21, 2001
Hawaiian Electric Company	October 4, 2001
COMMUNITY GROUPS	
Downtown Neighborhood Board	August 22, 2001
Waialae-Kahala Neighborhood Board	September 21, 2001
PRIVATE CITIZENS	
Wendell Lum	September 7, 2001
Charles Ferrell	September 13, 2001
Frederick Gross	September 18, 2001
P. Pasha Baker	September 21, 2001
Doug Meller	September 21, 2001

Source: City and County of Honolulu Department of Transportation Services and Parsons Brinckerhoff, March 2002.

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TABLE A.4-2
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
AS OF OCTOBER 4, 2001 (RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-2)

Commenter	Letter Date	No.	Comments
United States			
Daniel K. Akaka, United States Senator	9/7/01	1	I appreciate receiving this information and look forward to reviewing the Final Environmental Impact Statement.
George P. Young, P.E., Chief, Regulatory Branch Department of the Army U.S. Army Engineer District, Honolulu	8/30/01	1	The comments contained in my letter to you dated September 13, 2000 are still appropriate, and we have no additional comments.
	9/13/00	1	It is possible that some of the components of the project may require a Department of the Army (DA) permit; however, since the information provided is not sufficiently detailed to determine specific permit requirements. As the project elements progress to final design stages, we will be better able to advise you concerning permit requirements
Darice B. N. Young, Realty Contracting Officer Federal Aviation Administration	9/14/01	1	The Federal Aviation Administration has no comments regarding your Supplemental DEIS.
State of Hawaii			
Genevieve Salmonson, Director State Office of Environmental Quality Control	8/22/01	1	If you have received any comments during the consultation stage, please include them with their responses in the draft EIS.
		2	Also include synopses of the community working group meetings that dealt with the proposed changes.
		3	Please consider including a list of acronyms and abbreviations in the draft EIS.
		4	In the draft EIS indicate the status of each of the listed permits and approvals for this project.
Teney K. Takahashi, Director of Planning and Development Hawaii Community Development Authority	8/24/01	1	As you know, the Hawaii Community Development Authority development agenda calls for the development of several major public and private projects over the near future. These projects could add over 30,000 automobile trips per day at full build out. The traffic strategy for the Makai Plan called in part for the design of a "walkable community", one in which people could live, work and play without having to depend on an automobile. However, the key to success for such a community would be an efficient and affordable public transit system. BRT service for this area would provide the necessary public transit.
		2	We therefore support your proposed additional alignment through Kakaako Makai.
Linnel T. Nishioka, Deputy Director State Commission on Water Resource Management	8/24/01	1	We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
		2	If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.

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TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
AS OF OCTOBER 4, 2001 (RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-2)

Commenter	Letter Date	No.	Comments
Denis R. Lau, Chief Clean Water Branch State Department of Health	8/28/01	1	The applicant should contact the Army Corps of Engineers to identify whether a Federal permit (including a Department of Army permit) is required for this project.
		2	A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for each of the following activities which discharges into State Waters: a. Discharge of storm water runoff associated with construction activities that involve the disturbance of five acres or greater, including clearing, grading, and excavation; b. Discharge of hydrotesting water; and c. Discharge of construction denaturing effluent. If any construction activities will take place after March 10, 2003, discharge of storm water runoff associated with construction activities that involve the disturbance of one acre or greater, including clearing, grading, and excavation shall require coverage under the NPDES general permit.
		3	The applicant may be required to apply for an Individual NPDES Permit if there is any type of process wastewater discharge from the project into State Waters.
Paul G. LeMahieu, Ph.D., Superintendent of Education State of Hawaii, Department of Education	8/31/01	1	The Department of Education has no comment on the subject supplemental draft environmental impact statement preparation notice.
Anthony J. H. Ching, Executive Officer State of Hawaii Department of Business, Economic Development & Tourism, Land Use Commission	9/4/01	1	We have no comments to offer.
Don Hibbard, Administrator, State Historic Preservation Division, State of Hawaii, Department of Land and Natural Resources	9/7/01	1	Since the preferred alternative includes new routes, we would like a windshield level survey done along these new routes to identify historic sites that may be affected.
		2	Of concern to our office, in addition to the underground archaeological resources that may be uncovered, are the historic sites along the route. We would like to ensure that road widening, ramps, transit stations and any other structures necessary to operate the BRT system does not adversely impact these historic sites.
		3	Please note, in the permits and approvals section that while our approval is not necessary to proceed under Section 106 of the National Historic Preservation Act, the responsible federal agency will need to document its consultation with our office.
		4	Also, our written concurrence for projects by the state or its political subdivisions is required under Chapter 6E-8, Hawaii Revised Statutes.

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TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
AS OF OCTOBER 4, 2001 (RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-2)

Commenter	Letter Date	No.	Comments
Daniel S. Quinn, State Parks Administrator State Department of Land and Natural Resources	9/10/01	1	We appreciate the opportunity to review the Supplemental Draft EIS Preparation Notice for the subject project and would like to request to be a consulted party.
Sharyn L. Miyashiro, Executive Director State Department of Business, Economic Development & Tourism Housing and Community Development Corporation of Hawaii	9/12/01	1	At this point in time, we have no additional comments
Gilbert Coloma-Agaran, State Historic Preservation Officer State Department of Land and Natural Resources Historic Preservation Division	9/19/01	1	In general, we will need to have more specific information on what historic properties are present within the Area of Potential Effect (APE) as well as more details on any ground disturbing activities required to construct portions of the project
Ronald Hirano, Executive Director Aloha Tower Development Corporation	9/21/01	1	We are supportive of these revisions to your project.
		2	What is the timetable for completion of the Kakaako Makai Branch?
		3	Where will the terminus be placed for the Aloha Tower stops?
Gordon Matsuoka, Public Works Administrator, State of Hawaii, Department of Accounting and General Services	9/21/01	1	We are currently working with the Housing and Community Development Corporation of Hawaii (HCDCH) to plan the development of our portion of the area located at and around the old OR&L Building near the intersection of King Street and Iwilei Road. Our intent is to construct a Liliha Civic Center to provide office space for State agencies to service the public. As such, we believe: The proposed plan extending Kaaahi Street (at grade) toward Diamond Head to Iwilei Road would result in maximum disruption to the planned civic center site. It nearly bisects the property with a roadway that we do not intend to utilize. We question if a Bus Rapid Transit (BRT) easement is required to traverse the site at all (as opposed to remaining on Dillingham Boulevard to and from King Street, for example, since the plans for the BRT already take away two of the five lanes on Dillingham one block away). In lieu of an easement for the roadway, we propose an exchange of road Right-of-Way for county-owned school land.
		2	The proposed BRT station and any BRT parking structure on site would also adversely affect the development of the civic center, by increasing traffic around our site and taking up valuable property.
		3	That if the city still plans to go ahead with items 1 and 2 above, then the City should consider purchasing the adjacent Ohtani property to execute a land swap plus purchase of all improvements with the State. This would provide us with adequate property free of the disruption from increased vehicular traffic.
		4	Further, we request additional information about the proposed extension. What is the anticipated volume and type of traffic?
		5	Will private vehicles be permitted to use Kaaahi Street to cross through the site to Iwilei Road?

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TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
AS OF OCTOBER 4, 2001 (RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-2)

Commenter	Letter Date	No.	Comments
Gordon Matsuoka, Public Works Administrator, State of Hawaii, Department of Accounting and General Services	9/21/01	6	Nearly ten years ago, the previous professionally-planned rapid transit project (unfortunately now defunct), was conceived to be above grade in this area, with a station located Ewa off-site, makai of Kaaahi Street to serve this neighborhood. The transit easement alignment would have been much closer to the makai boundary than, for example, an extension of Kaaahi Street provides, and would therefore have less of an impact on our portion of the site.
Allan Ah San, Associate Vice President University of Hawaii	9/21/01	1	We have reviewed the Supplemental DEIS Preparation Notice and have no comments to offer at this time.
Gary Gill, Deputy Director State Department of Health	10/2/01	1	Wastewater Branch - All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We reserve the right to review the detailed wastewater plans for conformance to applicable rules.
		2	Clean Air Branch - The Department of Health, Clean Air Branch, has concerns on construction activities where potential dust problems may arise. There is a significant potential for fugitive dust to be generated during the various phases of the project, including clearing and removal of debris, grubbing, grading, and excavation.
		3	Implementation of adequate dust control measures during all phases of construction is warranted. Construction activities must comply with provisions of Chapter 11-60, Hawaii Administrative Rules, section 11-60.1-33 on Fugitive Dust
		4	The contractor should provide adequate means to control dust from road areas and during various phases of construction activities. These means include, but are not limited to: Control of Fugitive Dust.
		5	Clean Water Branch - The applicant should contact the Army Corps of Engineers to identify whether a federal permit (including a Department of the Army permit) is required for this project.
		6	A National Pollutant Discharge Elimination System (NPDES) general permit is required for the following discharges to waters of the State: (conditions listed). Any person requesting to be covered by a NPDES general permit for any of the above activities should file Notice of Intent with the Department's Clean Water Branch at least 30 days prior to commencement of any discharge to waters of the State.
		7	After construction of the proposed facility is completed, an NPDES individual permit will be required if the operation of the facility involves any wastewater discharge into State waters.

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TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
AS OF OCTOBER 4, 2001 (RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-2)

Commenter	Letter Date	No.	Comments
City and County of Honolulu			
Gary H. Okino, Councilmember District 8	9/19/01	1	A. Inclusion of the Kamehameha Highway Transit Corridor/BRT SPUR and Transit Stations in the SDEIS Analysis. 1. In lieu of the originally proposed Kaonohi Street BRT ramps and Kamehameha Drive-In location of a transit center, the Pearl City-Aiea working group recommended the following transportation elements: 1) Establishment of a transit corridor or "BRT spur" along Kamehameha Highway; 2) Development of two community transit centers along Kamehameha Highway, one at the site of the former Jim Slemmons auto dealership, the other on the site of the old Hale Mohalu Hospital; 3) Development of a major transit center with park-and-ride facilities at the Aloha Stadium overflow parking lot; and Construction of a new BRT on/off ram near Luapele Street to connect the Aloha Stadium Transit Center with the H-1 zipper lanes. It appears from the SDEIS Preparation Notice that the only element of the working group's recommendation to be included in the SDEIS is the construction of the new BRT on/off ramp near Luapele Street. This is a serious omission since the Kamehameha Highway transit corridor and transit stations are intended to service BRT vehicles that will directly enter and run along the Regional BRT H-1 corridor.
		2	Why is this integral part of the system being carved or parceled out of the SDEIS analysis? Does this limited review comply with the intent and legal requirements of the Environmental Impact Statement process? I believe that it is imperative that the SDEIS ascertain the impacts of the system as a whole not just a few selected parts!
		3	Since all elements of the Pearl City-Aiea working group's recommendation will be directly contributing to the BRT system's overall patronage and ridership estimates, revenue projects, and construction and operational expenses, it is only reasonable and logical that all elements likewise be included in the SDEIS analysis of impacts. Moreover, since these new elements will likely alter the results of the existing system-level analysis and findings provided in the MIS/DEIS, these additional elements must be included within the SDEIS to assure reliable, complete, up-to-date, and accurate system-wide projections and estimates.
		4	The amended LPA (reference Resolution 01-208, CD1, FD1) specifically provides that the Kamehameha Highway contra-flow transit corridor and the Pearl City and Aiea transit centers be projects separate from, but complementary to, the amended LPA. Accordingly, this is to request, and strongly urge, that all elements recommended by the Pearl City-Aiea working group identified above, not just the replacement of the Kaonohi Street BRT ramp with one at Luapele Street, be included as part of the SDEIS analysis.

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TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
AS OF OCTOBER 4, 2001 (RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-2)

Commenter	Letter Date	No.	Comments
Gary H. Okino, Councilmember District 8	9/19/01	5	1. Farrington Highway Transit Corridor and BRT Spur It has recently been brought to my attention that the Department of Transportation Services is also considering developing a portion of Farrington Highway into a transit corridor/BRT spur similar to that proposed for Kamehameha Highway in the Pearl City-Aiea area. For all of the same reason identified above, I strongly urge that this proposed Farrington Highway transit corridor/BRT spur, and its related transit components, be included as part of the SDEIS analysis.
		6	2. Agreement of Participation by State and Federal Agencies A major factor in the success of the overall BRT system is the use of state and federal government infrastructure. For example, the Regional BRT route proposes to utilize the State Department of Transportation's Zipper Lane as a transit corridor, and the Luapele Drive BRT ramp will be connected to and accessible via the Navy-owned portion of Luapele Street. Has the City received assurances from the appropriate agencies that it will be allowed to utilize the aforementioned as well as any other State- and Federally-controlled properties for the BRT system? If not, how will this affect the BRT project where specific locations/elements are identified in the SDEIS? What will be the result of a worst-case scenario where permission is not granted by either or both governments?
		7	3. Mixed Traffic Impediments to Efficient Regional and In-Town BRT Vehicular Movement The key to efficient and effective movement of the BRT vehicles is their use of exclusive right-of-ways or traffic lanes to by-pass the normal congestion of our streets and highways. Unfortunately, there are several segments along the BRT route where the BRT vehicles must operate in mixed- or shared-use lanes with normal traffic. This is potentially a fatal flaw to the entire system.
		8	If the BRT is forced to compete with and operate in existing traffic flow, bottlenecks will surely develop, resulting in greatly diminished speed and possibly even gridlock.
		9	While most of these shared-use segments are within the "In-Town" portion of the project (i.e. Kapiolani Boulevard between Atkinson and Kalakaua, Kapiolani Boulevard between Isenberg and University, along Richards Street, along King Street, etc.), it appears that some shared-use segments may also exist, at least temporarily, along the "Regional" portion as well.

TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
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Commenter	Letter Date	No.	Comments
Gary H. Okino, Councilmember District 8	9/19/01	10	To assure that we do not construct a system which simply moves commuters quickly to the next bottleneck, where it will stall in existing traffic, I strongly recommend that the SDEIS: 1) Identify all segments of BRT (both Regional and In-Town) where vehicles will be forced to use, share, or transition across mixed-use traffic lanes; 2) Analyze possible alternatives to such mixed-use; and 3) Develop and recommend a set of alternatives that assure BRT vehicles exclusive right-of-way from one end of the system to the other.
		11	E) Impact of New Developments on the BRT System There are locations along or in close proximity to the BRT route where major new developments and land uses have been proposed. While it may be impossible to anticipate all of the potential development or redevelopment sites; the SDEIS should identify and consider the impacts upon the BRT system (both positive and negative) of those developments for which preliminary plans have at least been proposed.
		12	A.5 UPDATE OF FINANCIAL ANALYSIS It is unclear from the language of the Preparation Notice whether or not a full update of the BRT Financial Analysis is proposed as part of the SDEIS. Clearly, given the additional costs associated with the added In-Town and Regional routing, as well as changes to the location and basic designs of the Regional on/off ramps, the overall cost and financial impact of the system will change significantly. Moreover, the additional In-Town routing and the inclusion of the Kamehameha Highway and Farrington Highway transit corridor/BRT spurs will significantly impact estimates of overall system ridership, revenue, and operating costs. Moreover, the State of Hawaii has recently stated (reference attached State DOT letter of September 18, 2001) that, "It is not our intent or expectation to provide funding for the BRT project; and have developed our capital improvement programs accordingly. Accordingly, if the financial analysis of the Primary Corridor Transportation Project is to be complete and accurate, it must be thoroughly updated to reflect all the changes and additions to the system that are currently being proposed, as well as review and revise the entire funding scheme based upon the State's non-participation.
Lee D. Donohue, Chief of Police City and County of Honolulu Police Department	9/12/01	1	The Honolulu Police Department has no comment to offer at this time.
Attilio K. Leonardi, Fire Chief City and County of Honolulu Fire Department	9/13/01	1	The proposed changes will not have an adverse impact on the services provided by the Honolulu Fire Department.

TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
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Commenter	Letter Date	No.	Comments
Clifford S. Jamile, Manager and Chief Engineer City and County of Honolulu Board of Water Supply	9/14/01	1	We have no objections to the proposed modifications to the locally preferred alternative. We reserve further comments until the Supplemental Draft Environmental Impact Statement is submitted for our review.
Randall K. Fujiki, AIA Director of Planning and Permitting City and County of Honolulu Department of Planning and Permitting	9/19/01	1	As indicated in our November 16, 2000 memo on the Draft Environmental Impact Statement, the revisions should be coordinated with proposed revisions to the Primary Urban Center and the Central Oahu Development Plans which are presently undergoing major revisions.
		2	Information on relevant alignment and station descriptions, estimated costs and CIP schedules, and implementation schedules for both the In-Town and Regional BRTs should be included where appropriate to determine if Development Plan Public Facilities Map or Public Infrastructure Map amendments will be required before CIP monies for construction and land acquisition are budgeted.
		3	The proposed In-Town BRT Branch Alignment includes five proposed stations located in the Chinatown, Hawaii Capital, and the Thomas Square/Honolulu Academy of Arts Special Districts. In Section 3.2.1 – Land Use and Relocation, there should be discussions about any consistency and/or impacts the proposed stations and BRT alignment will have on these special districts regarding their respective district objectives, historic architectural character, landscaping, pedestrian linkages, and view corridors.
		4	In Section 3.2.3 – Parks and Recreation Areas, Section 3.2.4 – Archaeological, Historic and Cultural Resources and Section 3.2.5 – Visual and Aesthetic, of the DEIS, there should be discussion regarding any impacts of the proposed stations and alignments on existing parks, streetscape improvements (i.e. curbs, gutters, sidewalks, planting strips, street trees, light standards, and signage), historic structures, and significant sites.
		5	In those areas not included in the special districts, it would be helpful to us to have a discussion on impacts the proposed In-Town Branch Alignment will have on existing street trees.
		6	Additional permits and/or approvals, other than Special Management Area permits, should be disclosed, i.e., the need for special district permits, waivers, and exemptions as a "public use," and Trenching Permits.

TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
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Commenter	Letter Date	No.	Comments
Organizations			
J.T. Miller, Chairman Resident Committee to Address Honolulu SDEIS Harbor Square Condominium Association	9/21/01	1	The routes directed both mauka and makai upon Richards Street, from King Street to Halekauwila Street/Ala Moana Boulevard are judged ill conceived as to functional operation and adherence within the framework of impact upon the environment..
		2	There are also major unaddressed issues which require total clarification for a comprehensive and acceptable final DEIS.
		3	3.1.1 Air Quality. As stated "Mesoscale impacts resulting from the proposed modifications are not expected to be different from what was disclosed in the MIS/DEIS." How can that be determined, when there has been no determination/selection as to the device of transportation, i.e. bus/train. Testing could not be completed until such vehicles are in place, especially on the heavily frequented segment of Richards Street between Queen Street and Ala Moana Blvd., which is lined with tall buildings, (one of which being residential).
		4	Utilizing the diesel powered articulated tractor type buses now in use with three lines operating one bus every three minutes, (or 60 buses per hour, or 1 per minute) air quality in this downtown canyon would definitely be required data. It is absent.
		5	Section 3.1.2 Noise and Vibration The opening statement of this section states there are no land uses along the proposed In-Town BRT alignment that are sensitive to excess noise such as residences. Located at the corner of Richards and Halekauwila Street, (the bottleneck which the three Kakaako lines intersect), stands a 27 story residential building. All three lines of his reference BRT pass directly beneath the windows of eighty (80) bedrooms, where working people will be trying to sleep at night, so as to be rested for the coming day.
		6	Because this bottleneck in the route structure, requiring right angle turns of the hinged buses, it will necessitate braking, then powering up again to regain speed, a very noise-generating procedure, which will occur, electric powered or diesel driven.
		7	Due to the narrow width of Richards Street (44 ft.), all on street parking will be removed to accommodate the makai/mauka bus lanes and yet include vehicular traffic entering and exiting the parking structures of the following business buildings between King Street and Halekauwila Street. (Buildings listed)....
		8	Located on the Diamond Head side of Richards Street, Below Merchant Street, is the U.S. Postal Service marshaling yard, facilitating over 150 mail trucks per day throughout the work week, commencing with a lineup each morning from 8:00 to 9:00 am of postal vehicles awaiting the deliveries to be dispensed, and at times blocking two lanes.
		9	Because of multiple and varied business utilization on Richards Street, it's narrow width, and the absence of loading docks for both the Melim Building and the Ocean View Center, the open street is often utilized for on street garbage pickup, moving trucks, courier deliveries, tree trimming, and other business requirements.

TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
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Commenter	Letter Date	No.	Comments
J.T. Miller, Chairman Resident Committee to Address Honolulu SDEIS Harbor Square Condominium Association	9/21/01	10	In the meeting of the DTS Bus Rapid Transit team, moderated by City Council Chairman Yoshimura, with the residents of Harbor Square Condominiums, held at Maritime Museum on 17 September 2001, it was made adamantly clear that the addition of sixty double carred transit buses, (one per minute), to the existing traffic from parking garages on Richards Street would cause insoluble gridlock for area workers and residents.
		11	This radical redesign of the Ala Moana Boulevard/Halekauwila Street/Richards Street juncture is fraught with dysfunction. Beneath the street and islands in this area lies a veritable labyrinth of conduits for: The Honolulu Electric Company (HECO), the Board of Water Supply, and the runoff drainage system for downtown Honolulu.
		12	Within a 100 ft. radius at this intersection, are situated fifteen manholes, accessing these vital (and aging) service tunnels beneath the streets. These manholes are utilized regularly, and nearly always requiring the coning of one or two lanes of Ewa bound traffic on Ala Moana Blvd., choking traffic to a crawl. Yet this will be the triangular apex of the Kakaako routing.
		13	As all Waikiki routing must pass through this bottleneck, either outbound or inbound, it is foreseeable that the Rapid Bus Transit System servicing Waikiki could be brought to a virtual halt.
		14	Unaddressed here is the environmental disfigurement in creating this intersection by the removal of eight 30 ft. palm trees and three plumeria trees, the area to be paved over for double car bus transit.
		15	As presented, the subject Supplemental DEIS will have enormous detrimental environmental impact upon the segment of Richards Street discussed. It will produce traffic congestion, air pollution, noise pollution, and finally, unreliable transit service, due primarily to route selection.
		16	There are at least four alternatives that would better serve this purpose than Richards Street. They are: South Street, Punchbowl Street, Mililani Street, and Bishop Street.
		17	The Downtown Neighborhood Board, a representative body elected by the people, has voted unanimously against the use of Richards Street as a route for the proposed transit plan. And the majority of residents and businessmen of this area are opposed as well.
Beverly W. Harbin, President Kakaako Improvement Association	9/21/01	1	We are in agreement that the three planned routes will effectively service our community. However, if the Kakaako Makai route is at any time deleted from existing plans, we would like to suggest the following changes:
		2	BRT Kakaako-Mauka Branch: KIA proposes to locate the route more in the center of this "critical mass" and provide a more efficient and direct route through Kakaako as follows: to continue makai on South St. to Auahi St. turning left on Auahi and traveling straight on Auahi all the way to the Queen Street stub off Ala Moana. In this closer proximity to the "critical mass" of the Ala Moana Boulevard area and in providing a straighter route through Kakaako (thus utilizing fewer individual streets), this proposed route reduces the environmental impact of the project.

TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
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Commenter	Letter Date	No.	Comments
Beverly W. Harbin, President Kakaako Improvement Association	9/21/01	3	BRT Kakaako-UH-Manoa Branch: KIA proposes that the route continue on King Street to Pensacola, then turn right and make a left turn onto Kapiolani Boulevard at Pensacola. This would avoid potential traffic congestion at Ward and Kapiolani.
Kirk Tomita, Senior Environmental Scientist, Hawaiian Electric Company, Inc.	10/4/01	1	HECO shall reserve further comments pertaining to the protection of existing power lines bordering the project area until construction plans are finalized.
Community Groups			
Lynne Matusow, Chair Downtown Neighborhood Board, No. 13	08/22/0`	1	The SDEIS Preparation Notice, Section 2.1 – describing the Kakaako Makai Bus Rapid Transit alignment - stated that the alignment currently travels on the Hotel Street Mall until the split at North King Street and Richards Street. Advised that King Street in this area is South King Street.
Lee Manfredi, Secretary Board of Directors Waialae-Kahala Neighborhood Board, No. 3	9/21/01	1	I have reviewed the proposed modifications and impact studies and find the proposals acceptable. I have no recommendations for changes to the proposals at this time.
		2	Where the project involved utilizing arterial streets, those streets have speed limits that are out of date with the current use and design of those streets. There are speed limits set at 25 or 30 MPH on streets and roadways that should be upped to at least 35 to 40 MPH, and 40 that should be upped to 45 MPH. These roadways with the low speed limits appear before or after a freeway entry or exit, i.e. Kalanianaole Highway east bound toward Aina Haina.
		3	The intersection traffic lights are not synchronized at all anywhere. Huge traffic jams are further exasperated when the traffic lights run independently of each other, i.e. Beretania Street westbound toward downtown.
Private Citizens			
Wendell Lum, Member Kaneohe Neighborhood Board No. 30 and the Citizen Advisory Committee of the Oahu Metropolitan Planning Organization	9/7/01	1	After Rounds 1 and 2 of the Oahu Trans 2K meeting, public and agency input was combined with technical analysis to define an initial set of alternatives. Only No-Build, Enhanced Bus/Transportation System Management (TSM), Bus Rapid Transit (BRT), and Light Rail Transit (LRT) were considered. A cost-effective shorter grade-separated light rail alternative most over existing street rights-of-way was not included to be an alternative for the In-Town portion. As the chosen Locally Preferred Alternative (LPA) the last time and within the last ten years it should have been again naturally included, for comparison, once and for all to see and comment on.
		2	The process should ensure that critical community concerns and technical issues are identified early in the study and addressed in the engineering, environmental, economic, and financial analyses...
		3	Was it a done deal to guide the process from the beginning by the City's Department of Transportation and its hired consultants to put the Bus Rapid Transit (BRT) as a preferred final choice somehow by eliminating a superior grade-separated light rail alternative?
		4	According to the U.S. Department of Transportation website: http://www.fta.dot.gov/research/pdf/iibrt.pdf there are problems of arterial bus priority treatments (Bus Rapid Transit).

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TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
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Commenter	Letter Date	No.	Comments
Wendell Lum, Member Kaneohe Neighborhood Board No. 30 and the Citizen Advisory Committee of the Oahu Metropolitan Planning Organization	9/7/01	5	Providing high quality service within the downtown sections of metropolitan areas like Honolulu which is the key to the Bus Rapid Transit concept has not been the subject of a comparable effort in the rest of the U.S.
		6	The most basic obstacle to creating bus lanes in Honolulu is the lack of adequate cross section to separate buses from general purpose traffic.
		7	The need to allow general purpose traffic to use a bus lane for turning interferes with bus operations, increasing travel times and adding to problems of enforcing the restriction of the lane to buses under all other circumstances.
		8	Curbside parking by emergency, delivery, and service vehicles also obstructs bus movements and is particularly disruptive if the bus lane is restricted to a single lane width.
		9	A drawback of median bus lanes is that passengers must walk across general purpose traffic lanes to reach the bus stop.
		10	The constraints imposed by traffic signal progression will limit effective application of signal preemption along the In-Town portion of the corridor.
		11	Because of the use of narrow platforms because of very narrow street rights-of-way the so-called transit stations will not eliminate the need to restrict boarding to the front door of the bus which takes additional time.
		12	System integration becomes an issue when the need to provide transfers between routes and other forms of public transportation where passengers pay fares at these transfer points with on board payment.
		13	The DEIS does not give details on the impact with the loss of one and in most cases two lanes of multi-purpose traffic lanes within the proposed corridor.
		14	Giving priority to the proposed BRT will cause additional delays at cross streets and pedestrian cross-walks creating additional traffic congestion at these locations?
		15	A grade-separated light rail system would do the most to improve the capacity of the transportation system to carry people through Honolulu as the population thrives through 2025.
		16	Because of its exclusive guideway would increase the mode share of transit more than any other alternative travel time savings for transit patrons, providing most reliable service that would be buffered from traffic delays, improving in-town mobility and strengthening the connections throughout the island of Oahu.
		17	The nature of the exclusive right-of-way for the grade-separated light rail would provide significantly faster travel times within Honolulu.
		18	The constant at-grade situations of pedestrians, automobile traffic, traffic lights, emergency vehicles, construction and repairs of underground utilities below the exclusive lanes of the BRT, traffic accidents, long stops because of passenger loading limitations, exceptional narrow bus stops, and more time between vehicles don't help the situation.

TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
AS OF OCTOBER 4, 2001 (RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-2)

Commenter	Letter Date	No.	Comments
Wendell Lum, member Kaneohe Neighborhood Board No. 30 and the Citizen Advisory Committee of the Oahu Metropolitan Planning Organization	9/7/01	19	Additionally monitoring of both exclusive and shared lanes with the BRT will be a problem and more adjustments to satisfy problems with the communities nearby, currently going on, will cause additional mediation with a Bus Rapid Transit System to further deteriorate the word "rapid."
		20	Lack of sufficient cross-section of streets of the corridor creates very narrow bus stops, which also prevent faster on-board loading of passengers with a single front entry for verification of fares paid providing further deterioration of transit travel times.
		21	Maintenance and construction projects under our streets within the proposed BRT corridor has potential of nearly shutting down the system sometime in the future if implemented.
		22	Under the Bus Rapid Transit (BRT) alternative because there has been lack of the subject of comparable effort in North America this newer transit alternative application for success is not really known except in Curitiba, Brazil which is very different being under the control of a dictatorship.
		23	Narrow bus stops and limited availability of park and ride facilities are not better able to handle surges in ridership due to possible changes in land use policies in central Oahu, special events and sporting events easily.
		24	More transfers would be needed for both the In-town BRT and a grade-separated light rail system due to the proposed hub-and spoke-bus network
		25	Today's grade-separated light rail vehicles have noise emissions comparable to those of an electric trolley bus.
		26	Today's grade-separated light rail vehicles use far less power than other rapid transit systems and releases no harmful chemicals into our atmosphere.
		27	Fully automated and driveless grade-separated light rail vehicles can run more frequently than any BRT vehicle peak and non-peak hours.
		28	Because of lack of a comparable effort for a Bus Rapid Transit System on the mainland and even in Europe I see a missing alternative that should have been considered fairly for all taxpayers.
		29	A grade-separated light rail can be fast, convenient, reliable, and the right choice among all other alternatives.
		30	Building a grade-separated line for the In-Town portion will create many jobs and is a good investment in our city's future.
		31	Because it runs on its own tracks, separated from roads this transit system eliminates conflicts that are frequent on the road system.
		32	A grade-separated light rail system costs less in the long term and offers greater benefits.
Charles M. Ferrell Harbor Square	9/13/01	1	As proposed, traffic on Richards Street will be greatly increased by the addition of 2 BRT routes mauka and makai as well as the inclusion of a major intersection at Richards, Halekauwila, and Ala Moana Boulevard. In addition to the 2 BRT routes, a new mauka lane will be created which will introduce additional traffic on Richards street flowing from Halekauwila and Ala Moana Boulevard.
		2	Since BRT buses are projected to run at 4 minute intervals (30 buses/hour) at peak travel times, turning vehicles will have to not only compete with buses for access to the appropriate travel lanes but with vehicles already in these lanes.

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TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
AS OF OCTOBER 4, 2001 (RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-2)

Commenter	Letter Date	No.	Comments
Charles M. Ferrell Harbor Square	9/13/01	3	The creation of a traffic lane along the Ewa curb will eliminate a section of curb adjacent to Harbor Tower currently available for pickup and/or discharge of passengers. This area represents the only handicap accessible entry for residents or visitors to the front entrance. The loss of use of this facility will have a detrimental effect on the social conditions of residents and visitors.
		4	The use of Richard Street for 2 BRT routes as well as two traffic lanes will curtail the beneficial uses of the environment for residents and businesses located along the route as follows: 1. Increased noise, vibration and diminution of air quality from vehicular pollutants resulting forma significant increase in traffic. This will be a major problem for the parking garages from the back-up of vehicles waiting to enter or exit during peak travel times.
		5	2. Significant social effects from the loss of quality of living brought about by stresses engendered from increases in the density of detrimental environmental factors, such as those mentioned above. Additionally, the construction of a major intersection as well as 2 BRT and traffic lanes with its attendant disruption of the peace and tranquility of residents will be inevitable.
		6	3. Significant economic impact due to the reduction in value of properties resulting from the decrease in desirability of Harbor Square as a place to live or do business. Additionally, the city will have a loss of property tax revenues as a result.
		7	4. These factors will cumulatively have an effect upon the health and welfare of residents and business employees as a result of the introduction of significant traffic congestion in their living and working environments. Nor will they benefit from the BRT since there will be no access to busses along Richards Street.
		8	The use of Richards Street for 2 BRT routes as well as the introduction of traffic lanes which do not presently exist will have a major environmental impact upon the residents and businesses located in the area.
Federick C. Gross	9/18/01	1	The routing described in Par. 2.1 is circuitous at best, and the turn from Richards to Halekauwila exists but the entrance to Bishop Street does not exist. At best, all these streets are narrow and hardly suitable for buses even without any street parking. I believe that a better solution to the movement of bus traffic in this area should be found.
		2	Both King Street and Pensacola Street are one-way roads, and now are selected for two-way bus routes. This appears unsatisfactory.
		3	BRT Exclusive Ramp on the H-1 Freeway near Aloha Stadium: I am not familiar with the proposed ramp, but it would be most useful if it could be built with two lanes each on a divided road; thus, it could be used for inbound and outbound traffic at the same time.
Ms. P. Pasha Baker, Resident Harbor Tower	9/21/01	1	We already have buses on three sides of our complex – Nimitz Highway, Alakea Street, and Queen Street. Fortunately these three streets are able to accommodate this load, however we have three sides our building that we cannot stop alongside of, park, or load and unload passengers. If the new system is allowed to take over our tiny Richards Street we will be made an island.

TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
AS OF OCTOBER 4, 2001 (RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-2)

Commenter	Letter Date	No.	Comments
Ms. P. Pasha Baker, Resident Harbor Tower	9/21/01	2	It has been with shock and disbelief that we were suddenly notified that these meager remnants on Richard Street are now planning to be eliminated and that this has been in the planning stages for three years without any of us (some 2000 of us in the residential and commercial towers) being advised and/or consulted of the plans to punish us with a complete strangle on us and create hardships beyond measure.
		3	We would like to know - why are we being punished like this?
		4	Why has Mililani Street not been considered for this purpose? Why has Punchbowl Street not been considered for this? Why has South Street not been considered for this?
		5	Who do we turn to for help and answers to this matter?
		6	How can we get some consideration and at least a hearing with your office to address our problems?
Doug Meller	9/21/01	1	I would like to be a formally consulted party and be provided with a paper copy of the Supplemental DEIS, the Final EIS, and future BRT-related environmental documents.
		2	Adding a new BRT route means revising the BRT Alternative to attract more riders. How many daily transit trips would the No Build and the TSM Alternatives generate assuming the same total number of buses as the revised BRT Alternative in 2025? It seems obvious that fewer buses will result in fewer routes, reduced frequency of bus service, longer waits at bus stops, longer boarding times at bus stops, increased crowding of buses, fewer express buses, and fewer bus riders. Assuming the No Build and the TSM Alternative have fewer buses than the BRT Alternative will prevent a fair comparison.
		3	When does the City plan to convert existing traffic lanes east of Middle Street to exclusive use of the BRT route which will serve the UH? At that time, • which intersections will experience significantly reduced levels of service? • how many bus riders will be better off and how much reduction in travel time will they experience? • how many drivers will be worse off and how much more travel delay will they experience?
		4	When does the City plan to convert existing traffic lanes east of Middle Street to exclusive use of the BRT route which will serve Waikiki? At that time, • which intersections will experience significantly reduced levels of service? • how many bus riders will be better off and how much reduction in travel time will they experience? • how many drivers will be worse off and how much more travel delay will they experience?
		5	Am I correct in assuming that the proposed BRT route with stops at Aloha Tower and Kewalo Basin is contingent on the HCDA extending Ilalo Street to Punchbowl Street, and that extension of Ilalo Street may not occur within the next decade?
		6	When will the proposed BRT freeway-access ramp at Luapele Street, associated freeway widening, and the associated park-and-ride lot be constructed and what will each of these improvements costs?

TABLE A.4-2 (CONTINUED)
SUMMARY OF COMMENTS RECEIVED IN RESPONSE TO THE SDEISPN AND NOI
AS OF OCTOBER 4, 2001 (RESPONSES TO THE COMMENTS APPEAR IN EXHIBIT A-2)

Commenter	Letter Date	No.	Comments
Doug Meller	9/21/01	7	Each day, how many buses and bus rider will use the proposed BRT freeway access ramp at Luapele Street: • when it is first constructed? • in 2025?
		8	When the zipper lane is normally not deployed, and during peak traffic when the zipper lane cannot be deployed because of an incident or mechanical problems, the BRT will not be able to use the proposed Luapele ramp. What route will the BRT take when the proposed Luapele ramp cannot be used?
		9	If the proposed Luapelel ramp were not built, what is the projected drop in daily bus ridership?
		10	If the proposed park-and-ride lot were not built near the proposed Luapele ramp, what is the projected drop in daily bus ridership?
		11	In general, how large an expenditure does the City consider justified to attract a single additional daily bus rider? Will proposed expenditures to construct a BRT freeway-access ramp at Luapele Street, associated freeway widening, and the associated park-and-ride lot meet this standard?

Source: City and County of Honolulu Department of Transportation Services and Parsons Brinckerhoff, March 2002.

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TABLE A.4-3
PUBLIC OUTREACH ACTIVITIES, JANUARY 2001 TO MARCH 2002

Date	Organization	Date	Organization
January 11, 2001	Hawaii Council of AOAO	April 26, 2001	Pearl City Neighborhood Board
January 17, 2001	HCDCH	April 26, 2001	OHA and OEQC
January 19, 2001	State Department of Transportation (SDOT)	April 27-29, 2001	Spring New Products Show
January 30, 2001	Hawaii Developers' Council	April 30, 2001	Kakaako Improvement Association
February 7, 2001	Ron Lim, Spec. Asst. to Governor	May 1, 2001	City Square & Drywall Taper, Finishers & Allied Workers Union
February 13, 2001	Rae Loui, DDC	May 2, 2001	Hawaii Bicycling League
February 15, 2001	Zhuhai Transportation Committee	May 3, 2001	McCully/Moiliili Neighborhood Board
Feb. 16-18, 2001	Great Aloha Run Fitness EXPO	May 4-5, 2001	Mayor's Asia/Pacific Environmental Summit
February 22, 2001	Pearl City Neighborhood Board	May 8, 2001	Hilton Hawaiian Village
February 26, 2001	Kamehameha Schools	May 16, 2001	DLNR
February 27, 2001	Ala Moana/Kakaako NB	May 20, 2001	Hawaii Bicycling League – Bike Ride
February 28, 2001	American Institute of Architects	May 21, 2001	The Estate of James Campbell
March 1, 2001	Downtown Neighborhood Board	May 24, 2001	Councilmember Gary Okino
March 13, 2001	OMPO TOP 2025 Islandwide Meeting	May 24, 2001	Cultural Resources Expert Panel
March 15, 2001	CH2M Hill	May 31, 2001	University of Hawaii – Manoa
March 22, 2001	University of Hawaii – Manoa	June 8, 2001	Committee for Accessible Transit
March 27, 2001	Ala Moana/Kakaako NB	June 13, 2001	Honolulu Community College
March 28, 2001	Aiea/Pearl City Town Meeting	June 13-17, 2001	Home and Garden Show
March 29, 2001	GCA/AIA Joint Event	June 14, 2001	Ala Moana Center
March 30, 2001	Ala Moana Center	June 18, 2001	Wahiawa Neighborhood Board
April 4, 2001	Aloha Stadium Authority	June 19, 2001	Hawaii Transportation Association
April 5, 2001	Downtown Neighborhood Board	June 23, 2001	PUC Development Plan
April 6, 2001	Livable Waikiki Project (Planning)	June 26, 2001	Blood Bank of Hawaii
April 6, 2001	AARP	June 26, 2001	PUC Development Plan
April 9, 2001	DCS – Elderly Affairs Division	June 27, 2001	Honolulu Community College
April 9, 2001	Liliha/Kapalama NB	June 27, 2001	Waipahu Community Meeting
April 10, 2001	Hui Aikane (Sr. Citizen Group)	July 3, 2001	U.S. Army
April 10-11, 2001	CCH – Small Business on the Move	July 5, 2001	Downtown Neighborhood Board
April 16, 2001	Aloha Stadium Authority	July 5, 2001	McCully/Moiliili Neighborhood Board
April 19, 2001	AIA –Speakers Forum	July 9, 2001	Makiki Christian Church
April 21, 2001	Mayor's Vision Team Meeting	July 10, 2001	Iolani Palace
April 24, 2001	Hawaii Bicycling League	July 10. 2001	Senator Norman Sakamoto

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TABLE A.4-3 (CONTINUED)
PUBLIC OUTREACH ACTIVITIES, JANUARY 2001 TO MARCH 2002

Date	Organization	Date	Organization
July 16, 2001	Kaiser-Permanente Honolulu Clinic	September 13, 2001	Department of Lands and Natural Resources – State Historic Preservation Division
July 24, 2001	Mayor's Maritime Advisory Committee	September 14, 2001	OMPO Policy Committee
July 24, 2001	Larry Hurst	September 17, 2001	Harbor Square Condominium
July 24, 2001	Ala Moana/Kakaako Neighborhood Board	September 19, 2001	OMPO Policy Committee
July 25, 2001	City Council Transportation Committee	September 21-23, 2001	17th Annual Senior's Fair
July 31, 2001	Aloha Tower Development Corporation	September 25, 2001	FHWA
July 31, 2001	SUPERSTAR Hawaii	October 1, 2001	U.S. Navy
July 31, 2001	Aloha Tower Marketplace	October 2, 2001	Waikiki Working Group
July 31, 2001	Waipahu Town Meeting	October 3, 2001	Marco Polo
August 2, 2001	McCully/Moiliili Neighborhood Board	October 4, 2001	Ala Moana Neighborhood Board
August 2, 2001	OEQC	October 5, 2001	Kakaako Improvement Association
August 4, 2001	Pearl City Neighborhood Board	October 8, 2001	Outrigger Hotels and Resorts
August 4, 2001	Mayor's Vision Team Meeting	October 10, 2001	State Department of Transportation
August 8, 2001	Councilmember Romy Cachola & Kalihi Businesses	October 10, 2001	Department of Parks and Recreation
August 9, 2001	University of Hawaii – Manoa	October 12, 2001	U.S. Navy
August 14, 2001	Oahu Trans 2K Open House	October 15, 2001	Planning Session Meeting
August 15, 2001	FHWA NHPA Workshop	October 15, 2001	Ilikai Hotel and Condominiums
August 15, 2001	Belt Collins Hawaii	October 16, 2001	Harbor Square
August 16, 2001	Makiki Neighborhood Board	October 18, 2001	Hawaii Prince Hotel
August 22, 2001	State Department of Transportation	October 19, 2001	Cement & Concrete Products Industry
August 27, 2001	Vehicle Tech. Advisory Committee	October 21, 2001	Livable Waikiki Consultant Group
August 27, 2001	Department of Design and Construction	October 23, 2001	Waikiki Working Group
August 27, 2001	U.S. Army	October 23, 2001	Ala Moana/Kakaako Neighborhood Board
August 30, 2001	Car & Truck Rental & Leasing Assn.	October 24, 2001	Outdoor Circle
September 5, 2001	Kaimuki Neighborhood Board	October 24, 2001	City Council-Transportation Committee
September 6, 2001	McCully/Moiliili Neighborhood Board	October 26, 2001	Vehicle Technology Advisory Committee
September 7, 2001	McKinley High School	October 29, 2001	Land Use Research Foundation of Hawaii/ Leeward Oahu Transportation Management Association
September 9, 2001	Liliha Neighborhood Board	November 3, 2001	Pearl City Bus Facility Open House
September 12, 2001	Hawaii Hotel Association	November 6, 2001	Puck's Alley Businesses

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TABLE A.4-3 (CONTINUED)
PUBLIC OUTREACH ACTIVITIES, JANUARY 2001 TO MARCH 2002

Date	Organization	Date	Organization
November 7, 2001	State Department of Transportation's Kapolei and Makakilo Town Meeting	January 3, 2002	Peter Rogoff, Senate Majority Counsel
November 8, 2001	World Town Planning Event at University of Hawaii - Manoa	January 3, 2002	Kamehameha Highway Businesses
November 10, 2001	Pearl City Benchmarking Conference at Leeward Community College	January 9, 2002	Ala Moana Center
November 13, 2001	University Square Businesses	January 9, 2002	Kalihi Business Association
November 15, 2001	Government and Public Utilities Task Force	January 10, 2002	Department of Parks and Recreation, Senior Citizens Advisory Committee
November 15, 2001	McCully/Moiliili Neighborhood Board Planning Committee Meeting	January 10, 2002	Viet Cafe
November 15, 2001	City Council-Transportation Committee	January 10, 2002	Consulting Engineers Council of Hawaii
November 16, 2001	Marukai Corporation	January 11, 2002	Outdoor Circle
November 20, 2001	Hawaii Congress of Planning Officials Conference	January 14, 2002	Auahi Street Businesses
November 21, 2001	University of Hawaii and Tokai University Student Organizations	January 15, 2002	Hawaiian Electric Company, Corporate Excellence Department
November 26, 2001	Marukai Corporation	January 16, 2002	Community Leaders Forum at the University of Hawaii School of Architecture
November 26, 2001	Kamehameha Highway Businesses	January 16, 2002	City Councilmember Gary Okino
November 28, 2001	Castle & Cooke	January 17, 2002	Waipahu Neighborhood Board
November 28, 2001	Outdoor Circle	January 22, 2002	U.S. Army
November 30, 2001	University of Hawaii and Tokai University Student Organizations	January 23, 2002	Hawaii Visitors and Convention Bureau
December 3, 2001	University of Hawaii, "Town and Gown" Meeting	January 24, 2002	State Department of Transportation
December 4, 2001	American Association of Retired Persons	January 25, 2002	Final Candidates Forum for City Council
December 4, 2001	Associated Students of the University of Hawaii (ASUH)	January 31, 2002	Outdoor Circle
December 4, 2001	GASPRO and First Hawaiian Bank	February 1, 2002	Defining our Destiny: UH-Manoa – A Strategic Planning Event
December 5, 2001	Department of Parks and Recreation – Senior Citizens Advisory Committee (SCAC)	February 6, 2002	Coffee Partners Hawaii
December 13, 2001	Community Meeting sponsored by Representative Galen Fox	February 6, 2002	Kaimuki Neighborhood Board Meeting
December 18, 2001	Hawaii Pacific University and Education America	February 7, 2002	McCully/Moiliili Neighborhood Board Meeting
December 20, 2001	Verizon Hawaii, Inc.	February 8, 2002	Urban Land Institute Conference

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TABLE A.4-3 (CONTINUED)
PUBLIC OUTREACH ACTIVITIES, JANUARY 2001 TO MARCH 2002

Date	Organization	Date	Organization
February 9, 2002	Mathcounts	February 21, 2002	Waialae/Kahala Neighborhood Board Meeting
February 13, 2002	Palolo Neighborhood Board Meeting	February 26, 2002	Central Oahu Sustainable communities Plan Meeting
February 14, 2002	Diamond Head/Kapahulu Neighborhood Board Meeting	February 26, 2002	Hawaii Kai Neighborhood Board Meeting
February 14 - 16, 2002	16th Annual Great Aloha Run Health and Fitness Expo	February 26, 2002	Ala Moana/Kakaako Neighborhood Board Meeting
February 19, 2002	Nuuanu/Punchbowl Neighborhood Board Meeting	February 28, 2002	Pearl City Neighborhood Board Meeting
February 20, 2002	Oahu Metropolitan Planning Organization, Citizens Advisory Committee Meeting	March 1, 2002	OahuTrans4All
February 20, 2002	Kalihi/Palama Neighborhood Board Meeting	March 6, 2002	Manoa Neighborhood Board Meeting
February 21, 2002	Waikiki Improvement Association	March 7, 2002	Kuliouou-Kalani Iki Neighborhood Board Meeting
February 21, 2002	Makiki/Lower Punchbowl Neighborhood Board Meeting		

Source: City and County of Honolulu, Department of Transportation Services, March 2002.

A.5 PUBLIC INVOLVEMENT SINCE THE SDEIS

Since the publication of the SDEIS, the public outreach and involvement program has involved a wide variety of forums and tools to increase public awareness about the project and gather community input. The SDEIS public hearing, City Council committee meetings, working group meetings, informational briefings, and other tools have allowed the project to reach out to and hear from thousands of Honolulu's citizens.

A.5.1 SDEIS Review Period and Public Hearing

This section summarizes the SDEIS review period and public hearing. Table A.5-1 summarizes the SDEIS review process.

The FTA approved the SDEIS for public circulation on March 5, 2002. The State of Hawaii, Office of Environmental Quality Control (OEQC) approved the SDEIS for distribution on March 12, 2002. SDEIS printed copies were distributed to the public, libraries, community groups, and local, State, and federal agencies for review and comment. The SDEIS was also available on CD-ROM upon request and posted on the project website (www.oahutrans2k.com). People and agencies who submitted comments on the MIS/DEIS and the Notice of Intent to Prepare a SDEIS, published in accordance with the National Environmental Policy Act (NEPA), and the Environmental Impact Statement Preparation Notice (EISPN), published in accordance with Chapter 343, Hawaii Revised Statutes, were also sent printed copies.

The SDEIS Notice of Availability (NOA) was published in the March 22, 2002 Federal Register and March 23, 2002 The Environmental Notice. The SDEIS NOA and public hearing information were advertised in the Honolulu Star-Bulletin and the project newsletter (Progress Report No. 7). Also, between April 12, 2002 and April 19, 2002 several advertisements were published in The Honolulu Advertiser, and Honolulu Star-Bulletin. The SDEIS availability was given substantial media coverage particularly in local newspapers.

TABLE A.5-1
SDEIS REVIEW PROCESS

Activity	Date
SDEIS approved for circulation by FTA	March 5, 2002
Distribution of SDEIS	March 15, 2002
Notice of SDEIS availability in the Federal Register (public review period officially begins)	March 22, 2002
Notice of SDEIS availability in the OEQC, The Environmental Notice	March 23, 2002
Legal notice of SDEIS availability and public hearing in Honolulu Star-Bulletin	March 23, 2002 and April 1, 2002
Distribution of Progress Report No. 7 announcing availability of SDEIS and public hearing to project mailing list	April 15-17, 2002
Newspaper display ads for public hearing in Honolulu Advertiser and Honolulu Star-Bulletin	April 12-19, 2002
Formal public hearing at Hawaii Convention Center	April 20, 2002
Close of the public review period	May 7, 2002

Source: Parsons Brinckerhoff Quade & Douglas, Inc., November 2002.

The SDEIS public hearing was held on Saturday, April 20, 2002 at the Hawaii Convention Center, from 9 a.m. until approximately 3 p.m. From approximately 9:00 a.m. until 10:00 a.m., there was an "open house" where attendees could review display boards. Project staff was available at that time to discuss the project and answer questions.

There were two registration areas for meeting guests to sign-in and receive comment forms. One hundred sixty-one (161) people registered. In addition, there were 32 project personnel at the public hearing to help register meeting attendees, staff the display board areas where they answered questions plus discussed the project components with meeting attendees, and register people that wanted to testify. In addition, there was a court reporter at the public hearing.

Meeting attendees were provided the following three means to comment on the project while at the public hearing:

- At the registration table, meeting attendees were given comment forms and pencils. Attendees were invited to complete the comment forms at the meeting and deposit them in a box; however; they were also advised they could complete the comment forms and mail them in by the May 7, 2002 comment period close date.
- Attendees wishing to give oral testimony were directed to the testimony sign-up table. Seventy-one (71) people signed-up to testify although not all 71 testified because some had left prior to their names being called.
- Attendees who wanted to give oral testimony but were not comfortable speaking in front of an audience were directed to the court reporter to record their comments. This option was only available between 9:00 a.m. and 10:00 a.m., during the "open house".

At around 10:00 a.m., the public hearing began. A project team member, using PowerPoint slides, briefly presented a project overview which included a discussion of the period from the MIS/DEIS to the SDEIS, purpose and need, alternatives, impacts, funding, etc. After the presentation, registered speakers were invited to speak. Except for elected officials who were allowed to speak first, the speakers spoke in the order that they registered. The court reporter recorded the public hearing proceedings. Chapter 7 presents the written and oral comments and response letters received after the MIS/DEIS and SDEIS were published.

A.5.2 Meetings with City Council and Other Elected Officials

Since the SDEIS was published, project team members have been regularly meeting with the City Council and other elected officials to keep them apprised of the project.

On April 10, 2002, the project team gave a presentation to the City Council Transportation Committee to brief the Councilmembers about the project effects documented in the SDEIS.

City Council Bills 20 and 34 were introduced and passed relating to the funding and permitting for PCTP Phase 1, bus rapid transit service from Iwilei to Waikiki via Kakaako Makai.

Bill 20, the City's CIP budget for FY 2003, ultimately included $31 million in construction funding for the PCTP Phase 1. After numerous committee hearings and three Council readings, Bill 20 was passed by the City Council on May 29, 2002.

In order for public infrastructure facilities to be funded and constructed, they must first be recognized by placing a symbol on the Development Plan Public Facilities Map (DP PFM) for the specific Development Plan area. Bill 34 amended a portion of the DP PFM for the Primary Urban Center by adding a publicly funded transit corridor symbol for the proposed PCTP Phase 1. The project team gave a presentation to the City Council Planning and Transportation Committees explaining Bill 34 on May 14, 2002. Additional committee meetings allowed for questions to the project team and public testimony on the bill. After three joint committee hearings and three Council readings, Bill 34 was passed by the City Council on June 26, 2002.

The project team also held meetings with elected officials and/or staff who requested project updates. These included State Senator Norman Sakamoto, State Senator Suzanne Chun-Oakland, State Representative Jun Abinsay, State Representative Ben Cabreros, State Representative Charles Djou, State Representative Willie Espero, State Representative Nestor Garcia, State Senator Rod Tam, Councilmember Romy Cachola, Councilmember Duke Bainum. Councilmember Gary Okino, and Councilmember Jon Yoshimura.

A.5.3 Outreach Meetings

The continued involvement of individuals from businesses, organizations, and institutions will continue to play an important role as the PCTP moves forward into final design and implementation. Since the SDEIS was published, project representatives have met with numerous individuals and groups in the community. Table A.5-2 summarizes the outreach meetings held since the SDEIS.

The project team carried out meetings and presentations in order to provide project updates to private firms and businesses, universities and colleges, major landowners, professional and business associations, and small businesses along the BRT alignment especially in the areas of the University, Kakaako, and Kalihi. The project team also worked with individuals and groups with specific interests and issues relevant to the transportation system through personal meetings, group briefings, and member communications.

The project team attended numerous neighborhood board and other community meetings throughout Oahu. At these meetings, DTS representatives and consultants were on hand either to give a presentation, to provide information, or to respond to comments and questions.

Comments and questions received at the many outreach meetings primarily focused on the following topics: cost of the project, traffic and transportation issues, community and social concerns, environmental issues, and anticipated ridership.

TABLE A.5-2
OUTREACH MEETINGS SINCE THE SDEIS

March 11, 2002	ASUH Senate Meeting	March 11, 2002	McCully/Moiliili Planning Committee Meeting
March 12, 2002	Waikiki Neighborhood Board Meeting	March 13, 2002	Palolo Neighborhood Board Meeting
March 14, 2002	Diamond Head/Kapahulu Neighborhood Board Meeting	March 16-17, 2002	Sunset on the Beach
March 19, 2002	Ala Moana/Kakaako Neighborhood Board Meeting	March 21, 2002	Waialae/Kahala Neighborhood Board Meeting
March 21, 2002	Makiki/Lower Punchbowl Neighborhood Board Meeting	March 28, 2002	Pearl City Neighborhood Board Meeting
April 3, 3003	Kaimuki Neighborhood Board Meeting	April 4, 2002	Kuliouou-Kalani Iki Neighborhood Board Meeting
April 4, 2002	Downtown Neighborhood Board Meeting	April 4, 2002	McCully/Moiliili Neighborhood Board Meeting
April 8, 2002	McCully/Moiliili Planning Committee Meeting	April 9, 2002	Waikiki Working Group Meeting
April 10, 2002	City Council Transportation Committee Meeting	April 10, 2002	Palolo Neighborhood Board Meeting
April 11, 2002	Diamond Head/Kapahulu Neighborhood Board Meeting	April 12, 2002	Hui Lokahi O Aina Haina
April 15, 2002	Waiau Seniors	April 16, 2002	Waikiki Working Group Meeting
April 18, 2002	Makiki Neighborhood Board Meeting	April 19, 2002	Honolulu Board of Realtors
April 20, 2002	SDEIS Public Hearing	April 23, 2002	Waikiki Working Group Meeting
April 23, 2002	Ala Moana/Kakaako Neighborhood Board Meeting	April 24, 2002	Bill 34, Public Facilities Map amendment, first reading
April 24, 2002	Bill 20, CIP Budget, first hearing	April 27, 2002	League of Women Voters, Transportation Committee Meeting
April 29, 2002	East Honolulu Rotary Club	May 1, 2002	Altres Staffing
May 1, 2002	Destiny Defined: Manoa Strategic Planning	May 1, 2002	Kaimuki Neighborhood Board Meeting
May 1, 2002	Manoa Neighborhood Board Meeting	May 2, 2002	League of Women Voters Board Meeting
May 2, 2002	Downtown Neighborhood Board Meeting	May 2, 2002	Kuliouou/Kalani Iki Neighborhood Board Meeting
May 2, 2002	McCully/Moiliili Neighborhood Board Meeting	May 3, 2002	Historic Hawaii Foundation
May 6, 2002	Representative Charles Djou	May 9, 2002	Diamond Head/Kapahulu Neighborhood Board Meeting

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May 9, 2002	Salt Lake/Aliamanu Neighborhood Board Meeting	May 14, 2002	Bill 34, City Council Planning and Transportation Committee Meeting
May 15, 2002	Oahu Metropolitan Planning Organization Citizens Advisory Committee Meeting	May 16, 2002	Bill 20, City Council Special Budget Committee Meeting
May 20, 2002	Department of Design and Construction Briefing	May 20, 2002	BRT Display at Kahala Mall for American Public Works Association
May 29, 2002	Bill 20, City Council Meeting, third reading	May 29, 2002	Vehicle Technology Group Meeting
May 29, 2002	Bill 34, City Council Meeting, second reading	June 3, 2002	Pu'uwai 'Opiopio Seniors Club
June 5, 2002	Hui Hau'oli O Aina Haina Senior Club	June 5, 2002	Bill 34, City Council Planning and Transportation Committee Meeting
June 6, 2002	Kuliouou/Kalani Iki Neighborhood Board Meeting	June 12, 2002	Helber, Hastert & Fee
June 13, 2002	Diamond Head/Kapahulu Neighborhood Board Meeting	June 18, 2002	4th Japan –U.S. Seminar on Sustainable Communities and Sustainable Society
June 18, 2002	Councilmember Romy Cachola	June 18, 2002	ASUH Senate Meeting
June 19, 2002	Oahu Metropolitan Planning Organization Citizens Advisory Committee Meeting	June 20, 2002	Honolulu Board of Realtors – East Honolulu Region
June 24, 2002	State Historic Preservation Division	June 25, 2002	Ala Moana/Kakaako Neighborhood Board Meeting
June 26, 2002	Bill 34, City Council, third and final reading	June 27, 2002	Pearl City Neighborhood Board Meeting
July 10, 2002	Kalihi Business Association	July 16, 2002	SDOT Meeting
July 17, 2002	Oahu Metropolitan Planning Organization Citizens Advisory Committee Meeting	July 23, 2002	Ala Moana Lions Club
July 24, 2002	Salt Lake/Aliamanu/ Foster Village Working Group	July 26, 2002	Department of Accounting and General Services
July 29, 2002	Honolulu Board of Realtors	August 1, 2002	Kuliouou/Kalani Iki Neighborhood Board Meeting
August 7, 2002	Office Visits on Dillingham Boulevard	August 8, 2002	Office Visits on Dillingham Boulevard
August 9, 2002	Pacific Gateway Center	August 10, 2002	Kaimuki Kanikapila
August 14, 2002	Office Visits on Dillingham Boulevard	August 19, 2002	Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board Planning Committee
August 21, 2002	OMPO Citizens Advisory Committee	August 23, 2002	Office Visits on Dillingham Boulevard
August 26, 2002	Home Depot	August 26, 2002	Planning/Zoning Committees of various Neighborhood Boards
August 27, 2002	Primary Urban Center Development Plan Public Meeting	August 27, 2002	Office Visits on Dillingham Boulevard
August 29, 2002	Primary Urban Center Development Plan Public Meeting	September 6, 2002	Kapiolani Park Preservation Society

September 9, 2002	Kalihi Palama Community Council	September 9, 2002	Blood Bank
September 12, 2002	Diamond Head/Kapahulu/St. Louis Neighborhood Board	September 18, 2002	OMPO Citizens Advisory Committee
September 24, 2002	Field Visit with Kapiolani Park Preservation Society	September 25, 2002	Diamond Head/Kapahulu/St. Louis Neighborhood Board Special Meeting
October 1, 2002	Home Depot	October 2, 2002	Waikiki Vision Meeting
October 3, 2002	Hale Koa Hotel/U.S. Army	October 4, 2002	Outdoor Circle
October 4, 2002	Hawaii State Federal Credit Union	October 15-25, 2002	Transit Display at City Hall

Source: Parsons Brinckerhoff, Inc., November 2002.

A.5.4 Other Public Outreach Activities and Tools

In addition to the meetings described above, public outreach efforts since the SDEIS has included various other activities and tools, including public displays, newspaper advertisements, project website, Progress Report newsletters, and informational handouts.

The project team reached out to new audiences through informational displays at special events open to the public and targeted audiences. Since the SDEIS, BRT displays were featured at the "Mayor's Mini City Hall," at large special events, and other public locations.

To increase awareness of the project among the public, a series of paid newspaper advertisements were developed. These advertisements aimed to briefly explain the project and to invite the public to the upcoming public hearing. To publicize the SDEIS public hearing in April 2002, a series of advertisements appeared in the Honolulu Advertiser and Honolulu Star-Bulletin over a four-day period.

The project website, <www.oahutrans2k.com>, continues to provide the public with the current project status. The website has provided BRT news, background information, route maps, PDF files of the SDEIS and other publications, announcements of upcoming events, and links to other relevant websites.

Progress Report No. 7 was published at the time the SDEIS was released. This newsletter included a description of the SDEIS, highlights from the Waikiki Working Group, responses to common questions, and an update on hub-and-spoke bus routes. 12,000 copies of Progress Report No. 7 were printed and distributed to the Oahu Trans 2K mailing list or passed out to participants at outreach meetings.

Numerous informational handouts were published and distributed to the public. These included basic fact sheets about BRT, "frequently asked questions," and material created for specific audiences such as small businesses, senior citizens, and students.

A.5.5 Public Involvement Since the State FEIS

The State FEIS Notice of Availability was published in the December 8, 2002 edition of The Environmental Notice. As a result of comments on the SDEIS, the Refined LPA underwent further refinements, which were presented in the State FEIS. These refinements/clarifications were presented as part of the first briefing on the Primary Corridor Transportation Project to the new City Council Transportation Committee on January 13, 2003. The agenda of the meeting was publicly noticed and members of the public were allowed to ask questions and/or make comments. The meeting was carried live on the public access channel for viewing by those who could not attend the meeting, and the tape was subsequently replayed.

Appendix A

Exhibit A-1

EXHIBIT A-1. COMMENTS AND RESPONSES REGARDING EISPN AND NOI

This exhibit includes the letters received in response to the Environmental Impact Statement Preparation Notice published in the April 23, 1999 The Environmental Notice. Each comment letter is followed by a response letter from the Department of Transportation Services.

Agency or Organization	Comment Letter Date
UNITED STATES	
Federal Aviation Administration	May 5, 1999
USDA - Natural Resources Conservation Service	May 6, 1999
U.S. Geological Survey	May 5, 1999
U.S. Fish & Wildlife Service	May 24, 1999
U.S. Naval Base Pearl Harbor	May 26, 1999
Federal Highway Administration[1]	June 14, 1999
STATE OF HAWAII	
DBEDT - Land Use Commission	April 29, 1999
DLNR - Commission on Water Resource Management	May 3, 1999
DLNR - Historic Preservation Division	May 4, 1999 and June 3, 1999
DOT - Harbors Division	May 6, 1999
Department of Education	May 6, 1999
Office of Environmental Quality Control	May 13, 1999
DOT - Airports Division	May 18, 1999
DOT - Highways Division	June 9, 1999
DLNR - Land Division	May 20, 1999
DOE - Hawaii State Public Library System	May 24, 1999
Department of Health	May 26, 1999
DBEDT - Office of Planning	May 24, 1999
Office of Hawaiian Affairs	May 28, 1999
Department of Defense – Civil Defense	June 24, 1999
CITY AND COUNTY OF HONOLULU	
Department of Environmental Services	April 30, 1999
Fire Department	May 13, 1999
Police Department	May 18, 1999
Department of Parks and Recreation	May 24, 1999
Department of Planning and Permitting	May 26, 1999
Board of Water Supply	May 13, 1999
OTHER INDIVIDUALS AND ORGANIZATIONS	
Oahu Metropolitan Planning Organization	May 24, 1999
Leeward Oahu Transportation Management Association	May 24, 1999
The Outdoor Circle	May 18, 1999
Hawaii Bicycling League	May 24, 1999
Life of the Land	May 22, 1999
Patricia Tummons	May 3, 1999
Douglas Meller	May 24, 1999
Decision Analysts Hawaii[2]	June 8, 1999

Note:

[1] Comment letter from Federal Highway Administration was in response to a May 5, 1999 letter from the Federal Transit Administration, requesting that the FHWA elect to be a cooperating agency on the Primary Corridor Transportation Project (PCTP).

[2] Comment letter from Decision Analysts Hawaii was in response to the Islandwide Mobility Concept Plan (March 1999).

U.S Department
of Transportation
Federal Aviation
Administration

Western-Pacific Region
Airports District Office

300 Ala Moana Blvd., Room 7-128
Honolulu, Hawaii 96813
MAIL: Box 50244
Honolulu, Hawaii 96850-0001
Phone: (808) 541-1232
FAX: (808) 541-3482

May 5, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

We have reviewed the Primary Corridor Transportation Project Environmental Assessment (Environmental Impact Statement Preparation Notice) dated April 1999.

Although we have no comments on the EA/EISPN, we request that our office be included in the scoping process because some of the proposed alternatives are adjacent to Honolulu International Airport. These alternatives, with readily accessible links to airport transportation systems, could improve access for passengers, employees, and other users of the airport. We also suggest coordination with the State Airports Division.

If you have any questions, please call David Welhouse at 541-1243.

Sincerely,

Daniel S. Matsumoto
Civil Engineer

cc: Ben Schlapak, DOTA
Office of Environmental Quality Control

RECEIVED
99 MAY 6 AM 11:55

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD5/99-02229R

Mr. Daniel S. Matsumoto, Civil Engineer
U. S. Department of Transportation
Federal Aviation Administration
Western-Pacific Region, Airports District Office
Box 50244
Honolulu, Hawaii 96850-0001

Dear Mr. Matsumoto:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 5, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Parsons Brinkerhoff Quade & Douglas, Inc.

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United States
Department of
Agriculture

Natural
Resources
Conservation
Service

P.O. Box 50004
Honolulu, HI
96850

USDA

Our People...Our Islands...In Harmony

May 6, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

RECEIVED
99 MAY 10 A8:47

Dear Ms. Soon:

Subject: Primary Coorridor Transportation Project

We have reviewed the above mentioned document and have no comments to offer at this time.

Thank you for the opportunity to review this document.

Sincerely,

KENNETH M. KANESHIRO
State Conservationist

cc:
Office of Environmental Quality Control, 235 South Beretania Street, Suite 702,
Honolulu, Hawaii 96813

The Natural Resources Conservation Service works hand-in-hand with the American people to conserve natural resources on private lands.

AN EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02275R

August 16, 2000

Mr. Kenneth M. Kaneshiro, State Conservationist
U. S. Department of Agriculture
Natural Resources Conservation Service
P.O. Box 50004
Honolulu, Hawaii 96850

Dear Mr. Kaneshiro:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 6, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project. We understand that you have no comments at this time. Your letter will be included in the Major Investment Study/Draft Environmental Impact Statement.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

AR00016181

United States Department of the Interior

U.S. GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
677 Ala Moana Boulevard, Suite 415
Honolulu, Hawaii 96813

May 5, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project Environmental Impact Statement Preparation Notice

The staff of the U.S. Geological Survey, Water Resources Division, Hawaii District Office, has reviewed the subject Environmental Assessment (EIS Preparation Notice) and we have no comments to offer at this time.

Thank you for allowing us the opportunity to review and comment on this document.

Sincerely,

William Meyer
District Chief

cc: Office of Environmental Quality Control
235 South Beretania St., Suite 702
Honolulu, Hawaii 96813

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD5/99-02235R

Mr. William Meyer, District Chief
U. S. Department of the Interior
U. S. Geological Survey
Water Resources Division
677 Ala Moana Boulevard, Suite 415
Honolulu, Hawaii 96813

Dear Mr. Meyer:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 5, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project. We understand that you have no comments at this time. Your letter will be included in the Major Investment Study/Draft Environmental Impact Statement.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

AR00016182

Received

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3122
Box 50088
Honolulu, Hawaii 96850

In Reply Refer To: LTG

MAY 24 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Re: Notice to Prepare Draft Environmental Impact Statement and Request for a Species List for the Primary Corridor Transportation Project, Oahu, Hawaii (ER 99/397)

Dear Ms. Soon:

The U.S. Fish and Wildlife Service (Service) has reviewed your April 21, 1999, letter notifying us that you intend to prepare a Draft Environmental Impact Statement (DEIS) for the proposed project referenced above. We have also reviewed a letter received from the Federal Transit Administration (FTA), dated May 12, 1999, requesting a list of endangered and threatened species found within the proposed project area. The proposed project is sponsored by the City and County of Honolulu Department of Transportation Services (DTS) and the U. S. Department of Transportation, FTA. This letter has been prepared under the authority of and in accordance with provisions of the National Environmental Policy Act of 1969 [42 U.S.C. 4321 *et seq.*; 83 Stat. 852], as amended, the Fish and Wildlife Coordination Act of 1934 [16 U.S.C. 661 *et seq.*; 48 Stat. 401], as amended, the Endangered Species Act of 1973 [16 U.S.C. 1531 *et seq.*; 87 Stat. 884], as amended, and other authorities mandating Department of the Interior concern for environmental values. Based on these authorities, the Service offers the following comments for your consideration.

The proposed project involves improving Oahu's primary transportation corridor, which extends from Kapolei in the Ewa District, past Pearl Harbor, Honolulu International Airport, downtown Honolulu, and continues eastward to the University of Hawaii at Manoa. The corridor is approximately 27 miles in length and at most 4 miles in width. The alternatives currently being considered include a No-Build Alternative, Enhanced Bus/Transportation System Management Alternative, a Bus Rapid Transit, and a Light Rail Transit alternative.

The Service has reviewed the information that was provided in your letter and pertinent information in our files, including maps and records prepared by the Hawaii Heritage Program of The Nature Conservancy. The Hawaiian hoary bat (*Lasiurus cinereus semotus*), federally listed as endangered, has been sporadically sighted within the metropolitan area of the proposed project. The following waterbird species, federally listed as endangered, have been observed in wetland areas within the project area:

a. Hawaiian coot (*Fulica americana alai*);
b. Hawaiian duck (*Anas wyvilliana*);
c. Hawaiian common moorhen (*Gallinula chloropus sandvicensis*); and
d. Hawaiian stilt (*Himantopus mexicanus knudseni*).

1 The following federally endangered plant species have been observed within the Ewa area of the Primary Transportation Corridor (refer to Figure 1.1 of the DEIS Preparatinn Notice):

a. *Abutilon menziesii* (ko`oloa`ula);
b. *Centaurium sebaeoides* (`awiwi); and
c. *Marsilea villosa* (`ihi`ihi).

In addition, the plant *Tarulinium odoratum* subsp. *auriculatum* (pu `uka `a), a Species of Concern, has been reported within the Ewa area of the Primary Transportation Corridor. However, it has not been observed there since 1916. The term "Species of Concern" describes species that are of concern to the Service, but require further biological research and field study to resolve their conservation status. These species are not currently federally protected.

2 The DEIS should address any potential project-related impacts to these and other native Hawaiian species and propose mitigation measures that avoid unnecessary impacts and minimize unavoidable impacts. For example, we recommend that these measures include avoidance of unnecessary destruction of vegetated areas containing ko`oloa`ula or any other federally listed plant species.

The Service appreciates the opportunity to provide this technical assistance, and we look forward to reviewing a copy of the DEIS when it is available. If you have questions regarding these comments, please contact Fish and Wildlife Biologist Leila Gibson by telephone at (808) 541-3441 or by facsimile transmission at (808) 541-3470.

Sincerely,

Robert P. Smith
Pacific Islands Manager

AR00016183

cc: FWS - Region 1, Portland
OEPC, Washington, D.C.
FTA, San Francisco
USEPA, Honolulu
DOFAW, Hawaii
CZMP, Hawaii

AR00016184

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02582R

August 16, 2000

Mr. Paul Henson, Field Supervisor
U. S. Department of the Interior
U. S. Fish and Wildlife Service
Pacific Islands Ecoregion, Ecological Services
Box 50088
Honolulu, Hawaii 96850

Dear Mr. Henson:

Subject: Primary Corridor Transportation Project

Thank you for the letter dated May 24, 1999, from Mr. Robert P. Smith regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. The endangered species that may be found within the project area are described in Section 3.7 of the MIS/DEIS.
2. Potential impacts on endangered species and proposed mitigation measures are addressed in Sections 5.7 and 5.12.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

DEPARTMENT OF THE NAVY
COMMANDER
NAVAL BASE PEARL HARBOR
517 RUSSELL AVENUE
PEARL HARBOR, HAWAII 96860-5020

IN REPLY REFER TO:
5090
Ser N465/10075
May 26, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project

Thank you for affording the Navy an opportunity to comment. As requested, we have reviewed the Environmental Assessment (EIS Preparation Notice) for the subject project and do not have comments pertaining to the environmental review process at this time.

We look forward to participating in the environmental review processes and discussing relevant issues should specific projects impacting our property be proposed. If we can be of further assistance, please do not hesitate to contact me at 471-1171 (Ext. 229).

Sincerely,

C. K. YOKOTA
Director
Regional Environmental Department
By direction of
Commander, Navy Region Hawaii

AR00016185

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4328 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD6/99-02735R

August 16, 2000

Mr. C. K. Yokota, Director
Regional Environmental Department
U. S. Department of the Navy
Commander, Naval Base Pearl Harbor
517 Russell Avenue
Pearl Harbor, Hawaii 96860-5020

Dear Mr. Yokota:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 26, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project. We understand that you have no comments at this time. Your letter will be included in the Major Investment Study/Draft Environmental Impact Statement.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Hawaii Division
Box 50206
300 Ala Moana Blvd., Room 3-306
Honolulu, HI 96850
June 14, 1999

IN REPLY REFER TO
HPR-HI
[720:200]

RECEIVED
JUN 16 P12:04

Leslie Rogers, Regional Administrator
Federal Transit Administration
201 Mission Street
Suite 2210
San Francisco, CA 94105

Subject: Primary Corridor Transportation Project: Cooperating Agency Decision and Comments

In response to your letter of May 5, 1999, we elect to be a cooperating agency on the Primary Corridor Transportation Project (PCTP) proposed by the City and County of Honolulu. Alternatives presented by the City are primarily transit options. We understand that if future conditions warrant, our role could be changed to joint lead agency, and that change can readily be accommodated. We agree with your understanding stated in the May 5 letter that the EIS will enable FHWA to discharge its jurisdictional responsibilities and that the EIS will satisfy our NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Please keep this office fully informed about any highway related impacts or improvements for the PCTP. We are committed to being involved and responsive to FTA, our State, City, and MPO partners, and the public throughout the study effort.

1 We would like to take this opportunity to remind you that the DEIS/MIS must be fully coordinated with the Oahu Metropolitan Planning Organization (OMPO.) Assumptions on land-use, demographics, traffic, and other data must be consistent between the PCTP and the OMPO planning process, including the Oahu Regional Transportation Plan (ORTP) update. OMPO is responsible for regional transportation planning on Oahu, and the MIS is really a subarea or corridor planning study that is of regional nature, so it should be carried out in the OMPO forum.

2 The cost for the PCTP alternatives must be determined and considered on a regional basis. The PCTP preferred alternative and all of its transit and highway elements must be fully incorporated into the ORTP by including it in the ORTP update or a plan amendment. Funds for the project must be reasonably available, and as part of the ORTP , the project must be considered with respect to all other transportation priorities in the ORTP to determine its priority and validity in the regional perspective. The project as a whole could consume funding for other priority projects included or being considered for inclusion in the ORTP and the tradeoffs must be presented to the stakeholders and the public for their consideration.

3 Alternatives presented by the City thus far are primarily transit options. While this focus is due to the high capacity transit placeholder in the existing ORTP, the MIS requirements call for all reasonable alternatives to be considered within the MIS, therefore highway options should be considered now rather than after the MIS is completed by the City. The HDOT and OMPO should ensure that the study includes multi-modal alternatives that support their transportation plans for the corridor.

Please feel free to contact Jonathan Young at (808) 541-2700, ext. 325, if you have any questions.

Sincerely yours,

Abraham Wong
Division Administrator

cc: Toru Hamayasu (DTS)
[redacted] (HDOT)
Gordon Lum (OMPO)
Pericles Manthos (HWY)
Julia Tsumoto (STP)

AR00016187

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD00-00406
TPD6/99-02967

Mr. Abraham Wong, Division Administrator
U. S. Department of Transportation
Federal Highway Administration
Hawaii Division
Box 50206
Honolulu, Hawaii 96850

Dear Mr. Wong:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated June 14, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. Coordination with the Oahu Metropolitan Planning Organization is ongoing. Section 4.2.5 discusses differences in data used for the MIS/DEIS and the Oahu Regional Transportation Plan analyses. A sensitivity analysis concluded that the difference is not significant enough to alter the analysis and conclusions in the MIS/DEIS.

2. The costs of the alternatives are provided in Section 2.3. A full financial analysis of the project is in Chapter 6.

3. Project alternatives are discussed in Chapter 2. Section 2.1 discusses the evolution of alternatives. The Transportation System Management and Bus Rapid Transit Alternatives are multi-modal alternatives. A highway alternative alone is not sufficient to satisfy project purposes and needs, and is addressed in Section 2.6. A highway alternative is inconsistent with the public's visions for the island's transportation system, as documented through the Oahu Trans 2K process.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

ESTHER UEDA
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
P.O. Box 2359
Honolulu, HI 96804-2359
Telephone: 808-587-3822
Fax: 808-587-3827

April 29, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Environmental Impact Statement Preparation Notice (EISPN) for the Primary Corridor Transportation Project

We have reviewed the EISPN for the subject project and find that the project areas, as represented on Figures 2.1 through 2.6, are designated within the State Land Use Urban and
1 Agricultural Districts. We suggest that the Draft EIS include a map showing the project areas under the different alternatives in relation to the State land use districts.

We have no further comments to offer at this time. We appreciate the opportunity to comment on the subject EISPN.

Should you have any questions, please feel free to call me or Bert Saruwatari of our office at 587-3822.

Sincerely,

ESTHER UEDA
Executive Officer

EU:th

cc: OEQC

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD5/99-02130R

Ms. Esther Ueda, Executive Officer
State of Hawaii
Department of Business, Economic Development and Tourism
Land Use Commission
P. O. Box 2359
Honolulu, Hawaii 96804-2359

Dear Ms. Ueda:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated April 29, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following response to your comment is provided.

1. Land use is addressed in Sections 3.1 and 5.1. With the exception of a small area in Ewa, the entire primary transportation corridor is designated as Urban by the State Land Use Commission.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

TIMOTHY E. JOHNS
CHAIRPERSON

BRUCE S. ANDERSON
RICHARD H. COX
ROBERT G. GIRALD
DAVID A. HOSHIDA
HERBERT M. RICHARDS, JR.

EDWIN T. SAKODA
ACTING DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

MAY - 3 1999

Honorable Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

RECEIVED
99 MAY 7 A9:30

Dear Ms. Soon:

EIS Preparation Notice for the Primary Corridor Transportation

Thank you for allowing us to review and comment on the subject document.

1 Page 19 of the document acknowledges the requirement for stream channel alteration permits (SCAP). Stream Channel Alteration permits, pursuant to Hawaii Revised Statutes §174C-71, will be required for projects which modify the bed or banks of streams.

2 As much as possible, plans for future public transportation alternatives should avoid adverse impacts to streams, and the draft environmental impact statement should properly disclose impacts.

We look forward to reviewing future documents relating to the Primary Corridor Transportation project.

If you have any questions regarding this letter, please contact Roy Hardy at 587-0274.

Sincerely,

Edwin T. Sakoda

EDWIN T. SAKODA
Acting Deputy Director

DH:ss

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4432 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02252R

August 16, 2000

Ms. Linnel Nishioka, Deputy Director
State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management
P. O. Box 621
Honolulu, Hawaii 96809

Dear Ms. Nishioka:

Subject: Primary Corridor Transportation Project

Thank you for the letter dated May 3, 1999, from Mr. Edwin T. Sakoda regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided:

1. Chapter 7 includes a list of potential permits and approvals needed by the project. A stream channel alteration permit may be needed.
2. Potential impacts on streams are discussed in Section 5.8.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

AR00016190

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

TIMOTHY E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
JANET E. KAWELO

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

May 4, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

LOG NO: 23324
DOC NO: 9904SC14

Dear Ms. Soon:

SUBJECT: Chapter 6E-8 Historic Preservation Comment on an Environmental Impact Statement Preparation Notice (EISPN) for the Primary Corridor Transportation Project
Honolulu and 'Ewa Districts, O'ahu
TMK: Zones 1 - 3, 9

Thank you for the opportunity to comment on the EISPN for the proposed Primary Corridor Transportation Project. According to your materials, the proposed action addresses existing and future transportation demands and capacity needs on the island of O'ahu in conjunction with the following goals: support of socioeconomic growth on the island and in the corridor; improvement of public transit services; facilitate land use development in the central urban core consistent with the vision for Oahu being developed at community meetings; support of current planning activities and policies. Our review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspections were made in conjunction with this review. Sara Collins and Tonia Moy of my staff recently met with Ms. Faith Miyamoto of your office and representatives of Parsons, Brinckerhoff, Quade, and Douglas, the consultant hired to prepare the EISPN, in order to review the proposed improvements.

Section 3.2.4 correctly summarizes the results of our meeting with your project staff and consultant. The parties agreed that the identification, assessment, and any needed treatment of significant historic sites found to be directly or indirectly affected by the undertaking will be carried out pursuant to Section 106 of the National Historic Preservation Act and Section 4(f) of the US Department of Transportation Act. When
1 we receive the pertinent information, we shall be better able to advise you on the following matters: (1) the presence or absence of historic sites within the areas of potential effect and project areas; (2) whether or not any of the identified historic sites

are significant; (3) whether or not the proposed undertaking(s) will have an "adverse effect" on significant historic sites; (4) what actions will be need to mitigate any adverse effects.

With regard to traditional cultural properties and any traditional practices associated with affected properties, your project staff and consultant indicated that they would
2 be consulting with the Office of Hawaiian Affairs and interested parties identified during the scoping process.

Should you have any questions about archaeology, please feel free to call Sara Collins at 692-8026. Should you have any questions about architecture, please feel free to call Tonia Moy at 692-8030.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

SC:jk

AR00016191

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

TIMOTHY E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
JANET E. KAWELO

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

RECEIVED
99 JUN 14 A10:

LOG NO: 23537
DOC NO: 9905SC22

June 3, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

SUBJECT: Chapter 6E-8 Historic Preservation Response to a Request for Information on Historic Sites in the Vicinity of the Primary Corridor Transportation Project
'Ewa and Kona, O'ahu

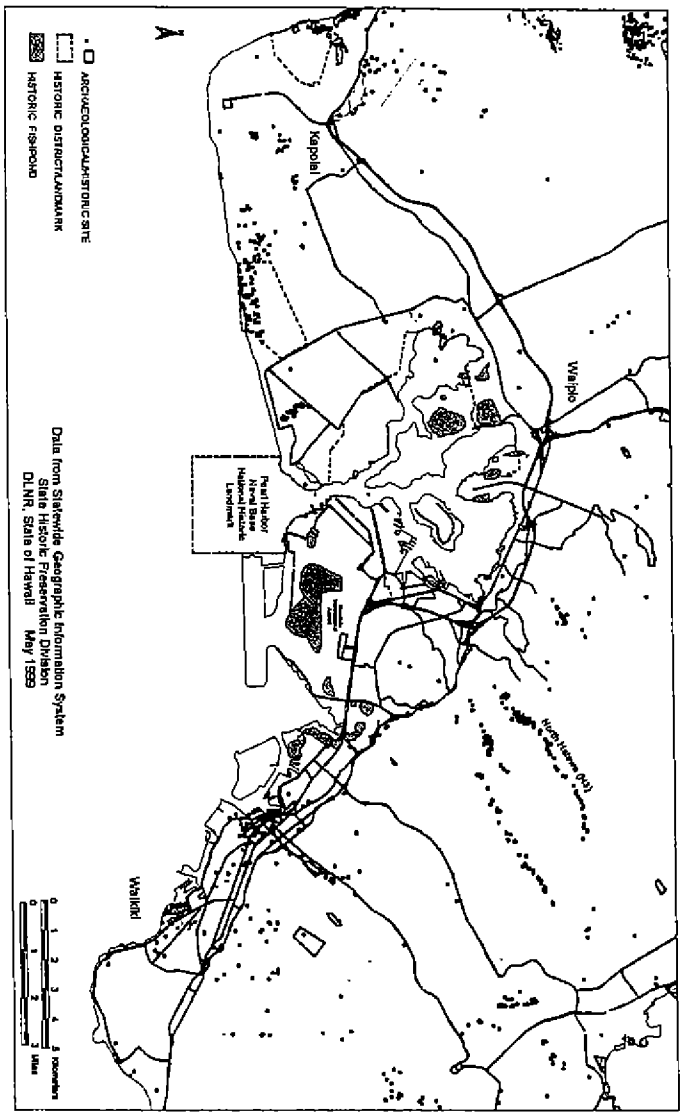
Thank you for your letter of May 7, 1999, in which you request preliminary information on the presence of significant historic sites known to be in the vicinity of the proposed Primary Corridor Transportation Project (PCTP) area. We have attached a map of southern O'ahu, including the PCTP corridor, which shows the general locations of significant historic sites or site districts (e.g., the Pearl Harbor Naval Base National Historic Landmark). At this preliminary stage of investigation, prior to issuing
3 the Draft Environmental Impact Statement, we understand that further work in defining the alternatives and the areas of potential effect (APEs) needs to be done. We further understand that the City and County of Honolulu has resident on its Geographic Information System most if not all of these same site data, including site
4 numbers. As your project progresses, should you or your consultant wish to consult our files for further information on specific sites or site districts, please let us know, and we can arrange a mutually convenient time to meet.

Should you have any questions, please feel free to call Sara Collins at 692-8026.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

SC:jk



AR00016192

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD5/99-02355R/
TPD6/99-02900R

Mr. Don J. Hibbard, Administrator
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Dear Mr. Hibbard:

Subject: Primary Corridor Transportation Project

Thank you for your letters dated May 4, 1999 and June 3, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided:

1. Historic sites issues and Section 106 are discussed in Sections 3.10 and 5.10. Section 106 coordination with SHPD has been initiated and is continuing. Parkland issues and Section 4(f) are discussed in Sections 3.11 and 5.11.
2. Coordination with OHA has occurred, as documented in Section 5.10 and Appendix D.
3. The status of coordination with SHPD is described in Section 5.10 and Appendix D.
4. The approach for studying historic sites is described in Sections 3.10 and 5.10.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 SO. NIMITZ HWY. • HONOLULU, HAWAII 96813-4898

IN REPLY REFER TO:
HAR-PM
5990.99

May 6, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, 12th Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

SUBJECT: Comments on The Primary Transportation Corridor as Proposed by the City and County of Honolulu at a Meeting Held on March 25, 1999, on a Corridor Traversing Through Fort Armstrong And Sand Island at Honolulu Harbor, Honolulu, Oahu

We would like to thank you for meeting with us on March 25, 1999 regarding the subject traffic corridor. We are in receipt of the April 16, 1999 memorandum from Mr. Bob Bramen, and we offer the following preliminary comments. This is a project of great magnitude, and as the Draft Environmental Impact Statement (DEIS) has not been published, we are offering comments on the project as discussed at the subject meeting.

1. We request that close scrutiny be given to the traffic studies that are to take place by the applicant, especially where the project intersects with Ala Moana Boulevard near South Street, and where Sand Island Access Road intersects with Nimitz Highway. We are concerned with the large tractor trailer traffic on this corridor as the corridor is proposed to tunnel under the entrance channel to Honolulu Harbor and the tunnel proposed by the Harbors Division under Kalihi Channel. We request that these issues be fully discussed in the DEIS in order to justify this project.

2. There are a multitude of permits required for this project. The acceptance of the Final Impact Statement by the State, together with a Conservation District Use Permit, as approved by the Board of Land and Natural Resources (BLNR), is a portion of the permitting process for the project. The U.S. Army Corps of Engineers and various State entities would have to give their concurrence to the project. As of the meeting date, the City and County of Honolulu (City) had stated they had not, as yet, approached the Department of Land and Natural Resources (DLNR), a key governmental agency in this project. Approval of the project by the Harbors Division is a necessity, but it appears that most of the land dispositions required for the project are public lands and will require approval by the BLNR. The permitting process should be clearly defined in the DEIS.

3. Concurrence by the Department of Business, Economic Development and Tourism, Hawaii Community Development Authority (HCDA) is necessary. The project would have to comply with HCDA's plans for the area since HCDA is planning the Ilalo Street extension in Kaakaukukui

4. The City stated that the Sand Island/Kakaako sewer line would probably have to be relocated, but details were not clear. We are concerned about this rerouting and request that it be implemented in the DEIS.

5. We are concerned with the City's ability to construct the tunnel under the entrance channel of Honolulu Harbor without disrupting harbor operations, and request that this issue be addressed in the DEIS.

6. The permitting process for the environmental issues is susceptible to massive public and governmental input, which may severely hinder the City's lead time for the project and subsequently impact the tenants of the Harbors Division.

7. The City stated that they would be applying for Federal funds for the project. As such, the City would have to acquire the fee title to the lands or perpetual easements to the lands required for the project. We would like to bring up three points here:

   a. We understand that the City has long disclaimed ownership, maintenance and responsibility of Sand Island Access Road, and the DLNR was forced to take responsibility for this access road for many years. Although the roads dispute between the City and the State was purportedly solved by Act 288, Session Laws of Hawaii, 1993, and the City Council Resolution No. 93-287, we are not sure how the DLNR will react to this project.

   b. The lands at Fort Armstrong, Piers 1 and 2, and the Foreign Trade Zone, legally described as the filled lands of Kaakaukukui, have been conveyed to the HCDA by the DLNR. Pursuant to 171-2, HRS, these are privately owned lands and fall under the jurisdiction of the Board of the HCDA, an important entity in this project considering HCDA's proposed Ilalo Street extension and how it may conflict with the proposed corridor.

   c. The City stated at the meeting that Sand Island Access Road would have to be widened, and lands (an undetermined amount, as presented) would have to be taken

AR00016194

from the container yard under the Harbors Division and lands encumbered by General Lease (GL) No. S-5261 issued to Sand Island Business Association (SIBA). We are concerned that the lands required by the City may have an adverse impact on the users of the container yard, together with additional lands required for construction activities. Additionally, the City should meet with Mr. Walter Arakaki, President of the SIBA, as the road widening would affect the amendment of numerous subleases issued by SIBA to its tenants, and also require an amendment to GL No. S-5261 (requiring BLNR approval).

8. It is imperative that our Oahu District Office be included in any discussions regarding traffic flow that may affect our harbor facilities and shipping lanes. They may be contacted at 587-2050. 9

Our Engineering Branch has made comments on the project, and has forwarded them to the Highways Division for inclusion with Highways Division's comments.

Should your staff have any questions regarding this matter, they may contact Mr. John Dooling, Property Manager, at 587-1943.

Very truly yours,

Thomas T. Fujikawa
Harbors Administrator

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH N. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02276R

August 16, 2000

Mr. Thomas T. Fujikawa
Harbors Administrator
State of Hawaii
Department of Transportation
Harbors Division
79 S. Nimitz Highway
Honolulu, Hawaii 96813-4898

Dear Mr. Fujikawa:

Subject: Primary Corridor Transportation Project

Thank you for your letter (HAR-PM 5990.99) dated May 6, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. The Sand Island analysis has been shifted to the Oahu Regional Transportation Plan (ORTP). Traffic impacts are discussed in Section 4.2.
2. Chapter 7 includes a list of potential permits and approvals needed by the project. Further coordination with all affected landowners will occur during subsequent planning.
3. Coordination with HCDA is ongoing.
4. The Sand Island analysis has been shifted to the ORTP. Potential impacts to sewer lines are addressed in Section 5.12.10.
5. The Sand Island analysis has been shifted to the ORTP.
6. The project schedules for the various alternatives are provided in Section 2.5. The Locally Preferred Alternative (LPA) has not been selected. Once the LPA is selected, the project schedule including the permit requirements will be refined.
7. Coordination with DLNR is ongoing, but the Sand Island analysis has been shifted to the ORTP.

8. The Sand Island analysis has been shifted to the ORTP.
9. The Sand Island analysis has been shifted to the ORTP. Coordination with the Harbors Division is ongoing. No impact on harbor facilities and shipping lanes would occur.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

PAUL G. LeMAHIEU, Ph.D.
SUPERINTENDENT

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

May 6, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project - EISPN

The Department of Education has no comment on the proposed project at this time. Please continue to keep us informed as the project progresses.

Very truly yours,

Paul G. LeMahieu, Ph.D.
Superintendent of Education

PLeM:by

cc: A. Suga, OBS
G. Gill, OEQC

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD5/99-02424R

Paul G. LeMahieu, Ph. D.
Superintendent of Education
State of Hawaii
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

Dear Dr. LeMahieu:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 6, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project. We understand that you have no comments at this time. Your letter will be included in the Major Investment Study/Draft Environmental Impact Statement.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

AR00016197

BENJAMIN J. CAYETANO
GOVERNOR

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

MAY 14 1999

May 13, 1999

Cheryl D. Soon
Department of Transportation Services
711 Kapiolani Blvd., #1200
Honolulu, HI 96813

Attn: Kenneth Hamayasu

Dear Ms. Soon:

Subject: Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project

We offer the following comments:

1. Two-sided pages: In order to reduce bulk and conserve paper, we recommend printing on both sides of the pages in the draft EIS.

2. Maps and figures:

   ▸ *Site maps*: Close-up neighborhood maps for each area of each alternative will be required.
   ▸ *Figures*: The use of color to distinguish between the various alignments in the figures would be extremely helpful.

1

3. Acronyms: In the draft EIS please include a list of acronyms found throughout the text.

4. Flora and Fauna: Section 3.1.4, *Ecosystem*, notes that some species in the corridor are classified as threatened or endangered. In the draft EIS please include a thorough discussion of impacts to threatened or endangered species and related mitigation measures.

2

3 5. Community consultation: Include synopses of the Trans 2K meetings held in the latter part of 1998 since they were preparatory to the development of this EIS.

4 6. Secondary impacts: Be sure to include a full discussion of secondary or indirect impacts, such as growth or shifts in population, for each of the alternatives under consideration.

5 7. Mitigation commitments: The last paragraph of Section 1.3, *Planning Process*, states that the federal Record of Decision will document the Locally Preferred Alternative and environmental mitigation commitments. Please bear in mind that the mitigation measures listed in the state final EIS also constitute mitigation commitments which must be implemented.

If you have any questions call Nancy Heinrich at 586-4185.

Sincerely,

Genevieve Salmonson

GENEVIEVE SALMONSON
Director

c: Robert Bramen, Parsons Brinckerhoff

AR00016198

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4039 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPDS/99-02425R

August 16, 2000

Ms. Genevieve Salmonson, Director
State of Hawaii
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 13, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Stalement (MIS/DEIS). Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. The MIS/DEIS will be double-sided and will include an acronym list. Copies of the MIS/DEIS with color figures will be available at public libraries and on CD-ROM. Section 3.3 discusses neighborhoods, with maps delineating the neighborhoods in the area.
2. Section 5.7 discusses the impacts on endangered species.
3. The Oahu Trans 2K meetings have been summarized and those summaries are included in Appendix A.
4. Secondary impacts are discussed in Section 5.13.1.
5. Comment noted.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

May 18, 1999

IN REPLY REFER TO:

AIR-P
99.0323

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project

Thank you for the opportunity to review the Primary Corridor Transportation Project Environmental Assessment (Environmental Impact Statement Preparation Notice), (EA/EISPN) dated April 1999.

1 In Figure 2.4, Year 2020 Light Rail Transit (LRT) Alternative 1 of the EA/EISPN, the LRT is in close proximity to Honolulu International Airport (HIA). This may have an impact on the future projects planned in the Honolulu International Airport Master Plan. Also, we are concerned about the LRT's impact on the traffic on the access roads to HIA. We request that the Department of Transportation, Airports Division be involved in your scoping process for this project.

If you have any questions, please call Stephen Takashima, Planner, of the Airports Division at 838-8810.

Very truly yours,

KAZU HAYASHIDA
Director of Transportation

c: Office of Environmental Quality Control

AR00016199

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JERRY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02508R

August 16, 2000

Mr. Kazu Hayashida, Director
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Hayashida:

Subject: Primary Corridor Transportation Project

Thank you for your letter (AIR-p99.0323) dated May 18, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which has been numbered. The following response to your comment is provided:

1. The project is being planned to be consistent with other plans, including those of the Airports Division to improve traffic on Honolulu's airport access roads. Coordination with the Airports Division is ongoing. Section 5.1.3 discusses consistency with land use plans. Potential impacts to utilities are addressed in Section 5.12.10.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
669 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

JUN 17 1999

IN REPLY REFER TO:
HWY-PS
2.4081

JUN -9 1999

'99 JUN 15 A8:16

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project
Environmental Impact Statement (EIS) Preparation Notice

Thank you for consulting us. We have the following comments on the scope of alternatives and impacts to be considered:

1. The Draft EIS should identify "stand-alone" components of alternatives which could be implemented even if other components are not pursued.

2. There should be two Enhanced Bus/TSM Alternatives. One should only assume expanded use of City buses. The other should assume expanded use of chartered/subsidized private buses and ferries for peak period transit. Findings from our experimental ferry demonstration project may be applicable.

3. The Draft EIS should clarify proposed "local street bus priority measures" and address any potential for conflict with signal preemption by emergency vehicles.

4. The Draft EIS should clearly describe and justify proposed improvements/alterations within the existing State highway right-of-way in terms of benefits, costs, traffic impacts, operational requirements, and safety. The full range of environmental impacts, including cumulative, regional and secondary impacts, must be addressed.

5. The Draft EIS needs to describe how the proposed Sand Island Bypass and narrowing of Nimitz Highway will accommodate vehicular access and space requirements for future Kewalo Basin and Honolulu Harbor operations. So that you understand the importance of harbor operations, our Harbors Division has provided the enclosed Economic Impact Assessment of Hawaii's Harbors.

6. The Draft EIS needs to describe how proposed alternatives will preserve bicycle routes and bicycle safety.

7. The Draft EIS should state its assumptions about how travel time and fares affect peak- and off-peak transit use. As one test of these assumptions, the Draft EIS should report the former travel mode of passengers on the experimental limited-stop "City Express". The Draft EIS also should report effects of future fare changes on multi-stop, limited-stop, and express bus ridership.

8. The Draft EIS should assume the same transit fares when evaluating alternatives. Alternatives should be compared in terms of:

   - Peak and off-peak travel times of transit and private vehicles between screenlines;
   - loss of vehicular capacity on highways and arterial streets;
   - cumulative effects on the location and duration of traffic congestion;
   - cumulative effects on peak vehicular trips and peak person-trips across screenlines;
   - costs that will not be covered by transit fares or Federal Transit Administration grants;
   - transit use by low income and elderly households;
   - impacts on land use and demographics; and
   - impacts on our Honolulu International Airport and existing utilities.

9. Please consult with us when more details are available regarding proposed improvements within our highway right-of-way.

10. As a part of your M.I.S., a highway alternative should be discussed or considered.

11. In the future, it would expedite our review of your Draft EIS/MIS if you could send us at least 10 copies of the document.

AR00016201

HWY-PS 2.4081

If you have any questions, please contact Ronald Tsuzuki, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours,

Kazu Hayashida

KAZU HAYASHIDA
Director of Transportation

Enclosure

c: Office of Environmental Quality Control

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD6/99-02879R

August 16, 2000

Mr. Kazu Hayashida, Director
State of Hawaii
Department of Transportation
Highways Division
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Hayashida:

Subject: Primary Corridor Transportation Project

Thank you for your letter (HWY-PS 2.4081) dated June 9, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. All alternatives are discussed in detail in Chapter 2. Each alternative is a network of projects with many of the discrete elements serving functions on their own. Benefits are increased as these individual elements are combined. Project components are not assessed individually and are not necessarily interchangeable.
2. All alternatives are discussed in detail in Chapter 2. Transportation Demand Management measures, such as those proposed, are incorporated in all alternatives. For example, all of the alternatives include a vanpool component (use of subsidized vehicles at peak hours).
3. Bus priority measures for the TSM Alternative are described in Section 2.2.2, and in Section 2.2.3 for the BRT Alternative.
4. Project alternatives are discussed in Chapter 2. Chapter 2 discusses how existing transportation right-of-ways (ROWs) are the most feasible for transit system enhancements because of high existing land use densities and limited space in the Primary Urban Center. Costs and adverse impacts are minimized when people-moving capacity can be enhanced within existing transportation ROWs.

5. The Sand Island analysis has been shifted to the Oahu Regional Transportation Plan. Potential vehicular traffic impacts are addressed in Section 4.2.
6. Project impacts on bicycle routes and safety are discussed in Section 4.5. Both SDOT and DTS have developed master plans to enhance the network of bicycle facilities and increase bicycling as a serious transportation mode for some travel markets. Improvement of bicycle facilities is included in only the BRT Alternative. However, bicycles alone cannot accommodate the existing and projected travel demand, and are not appropriate for all travel markets. The use of bicycles would be encouraged by the BRT Alternative, but circulator buses are necessary to reach the large service area and the different types of patrons that use the bus.
7. Financial plans are discussed in Chapter 6.
8. Project alternatives are defined in Chapter 2. Their transportation performance is compared in Chapter 4. Their financial aspects are compared in Chapter 6, including transit fare options. Their impacts on and benefits to low income communities, airports, and utilities are all discussed in Chapter 5.
9. Coordination with the Highways Division is ongoing.
10. All alternatives considered are discussed in Chapter 2. Section 2.1 discusses the evolution of alternatives. A highway alternative alone is not sufficient to satisfy project purposes and needs, and is addressed in Section 2.6. A highway alternative is inconsistent with the public's visions for the island's transportation system, as documented through the Oahu Trans 2K process.
11. Comment noted. The requested number of copies will be provided.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

AR00016203

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

MAY 20 1999

Ref:PS:EH

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project

We have reviewed the subject report and offer the following comments for your consideration.

Engineering Branch:

1 We recommend that the proposed improvements located in the flood zone be designed in accordance with Section 7.10-4 Development Standards, Article 7 Special District Regulations of the City and County of Honolulu Land Use Ordinance, latest edition.

Oahu District Land Office:

2 If State lands are impacted, tenants should be involved in the planning process. Compensation should be considered, if applicable.

3 Our understanding is that the DLNR State Historic Preservation Division, State Parks Division and the Commission on Water Resource Management were contacted directly regarding the proposed project.

Thank you for the opportunity to review the subject document. If you have any questions or require further assistance, please contact staff planner Ed Henry at 5787-0380.

Very truly yours,

Dean Y. Uchida,
Administrator

c.c. OEQC
Engineering Branch
ODLO

AR00016204

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4338 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH H. MAGALDI, JR.
DEPUTY DIRECTOR

TPDS/99-02513R

August 16, 2000

Mr. Dean Y. Uchida, Administrator
State of Hawaii
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Uchida:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 20, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. The proposed transitways will use existing roadways with minimal improvements required, such that there would be no impacts within the flood zone, as discussed in Section 5.8.
2. Coordination with tenants on State lands will continue during subsequent planning.
3. Coordination with these and other agencies is continuing, as described in Appendices A and D.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

VIRGINIA LOWELL
STATE LIBRARIAN

STATE OF HAWAII
DEPARTMENT OF EDUCATION
HAWAII STATE PUBLIC LIBRARY SYSTEM
ADMINISTRATIVE SERVICES BRANCH
KEKUANAOA BUILDING, ROOM B-1
465 SOUTH KING STREET
HONOLULU, HAWAII 96813

May 24, 1999

RECEIVED
'99 MAY 25 P2:16

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Thank you for allowing the Hawaii State Public Library System to review the Primary Corridor Transportation Project.

The HSPLS has no comments at this time.

Thank you.

Sincerely,

Keith Fujio
Admin. Svcs. Officer

cc: Office of Environmental
Quality Control

AR00016205

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD5/99-02581R

Mr. Keith Fujio
Administrative Services Officer
State of Hawaii
Department of Education
Hawaii State Public Library System
Kekuanaoa Building, Room B-1
465 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujio:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 24, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project. We understand that you have no comments at this time. Your letter will be included in the Major Investment Study/Draft Environmental Impact Statement.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to:
File:

May 26, 1999

99-082/epo

Ms. Cheryl D. Soon
Director, Department of
Transportation Services
City and County of Honolulu
Pacific Park Plaza, Suite 1200
711 Kapiolani Boulevard
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Environmental Impact State Preparation Notice
(EISPN)
Primary Corridor Transportation Project

Thank you for allowing us to review and comment on the subject project. We would like to see addressed in the Draft EIS
1 potential fugitive dust and noise problems during construction activities.

Sincerely,

GARY GILL
Deputy Director for
Environmental Health

c: OEQC

RECEIVED
'99 MAY 27 A10:46

AR00016206

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH N. MAOALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD5/99-02635R

Mr. Gary Gill
Deputy Director for Environmental Health
State of Hawaii
Department of Health
P. O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Gill:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 26, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following response to your comment is provided:

1. Fugitive dust is addressed in Section 5.12.5 and construction noise impacts are addressed in Section 5.12.6.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR
SEIJI F. NAYA
DIRECTOR
BRADLEY J. MOSSMAN
DEPUTY DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

David W. Blane
DIRECTOR, OFFICE OF PLANNING

OFFICE OF PLANNING
235 South Beretania Street, 6th Flr., Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Tel.: (808) 587-284[illegible]
Fax: (808) 587-282[illegible]

Ref. No. P-8093

May 24, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

We have reviewed the April 21, 1999, Primary Corridor Transportation Project Environmental Impact Statement Preparation Notice (EISPN) and have the following comments. The primary transportation corridor extends from Kapolei in the Ewa District to the University of Hawaii at Manoa. The corridor alternatives are a No-Build Alternative, an Enhanced Bus/Transportation System Management (TSM) Alternative, a Bus Rapid Transit (BRT) Alternative and a Light Rail Transit (LRT) Alternative. General alignments and other options within each of the alternatives were briefly addressed in the EISPN.

1 2 The draft EIS should indicate how each alternative would meet ridership demand based on projected population and economic growth for the region relative to the cost of the alternative. The discussion should include ridership projections and identify the costs for a self-sustaining or subsidized bus and/or light rail system.

3 4 Multi-modal options that might be employed separately or in concert with proposed alternatives, such as increased bikeway infrastructure or a ferry system, are additional alternatives that should be discussed. For example, an exclusive bus or rail system could share the right of way with bicycles if the corridor is planned well. Similarly, the proposed Sand Island Bypass Road and the conversion of Nimitz Highway to a parkway could also incorporate a bike and/or ferry system.

5 Potential impacts to the waterfront and Kakaako Waterfront Park due to the proposed Sand Island Bypass Road should be discussed. Page 17 of the EISPN indicates that there are no extensive wetlands in the corridor. Enclosed is a wetland map of the entire corridor. Please note the extensive wetland in the vicinity of the proposed Sand Island Bypass Road.

6 Best management practices to control non-point source pollution should be discussed in the draft EIS. For more information, consult our Coastal Non-Point Pollution Control Program Management Plan.

Other issues which should be further discussed in the draft EIS include:

7 • Transportation system management (TSM) policies such as downtown parking rate strategies, reduction of parking downtown, peak time tolls and land use policies that could reduce traffic.
8 • The need for supportive facilities, such as park and ride facilities in residential areas, and
9 • The redevelopment potential for areas around transit stops.

If you have any questions, please contact Christina Meller at 587-2845.

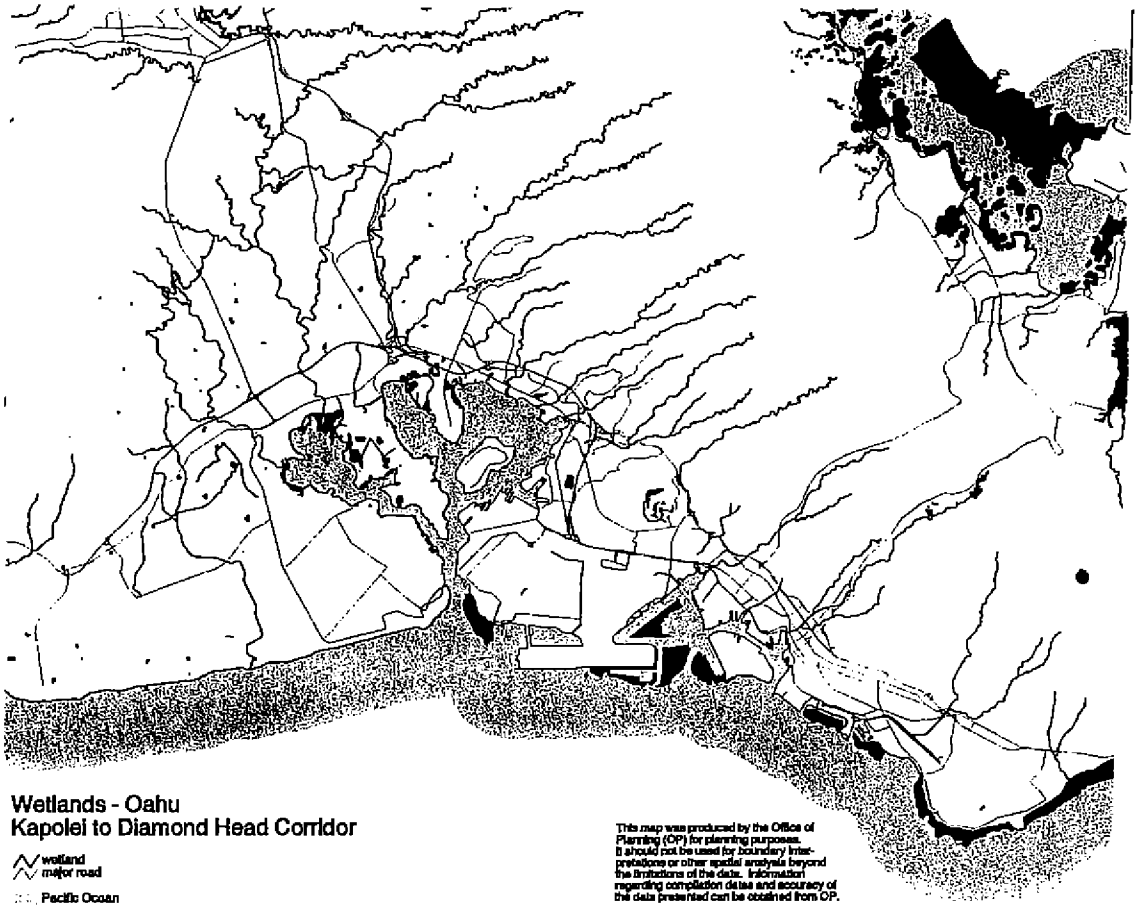
Sincerely,

David W. Blane
Director
Office of Planning

Enclosure

c: Ms. Genevieve Salmonson, OEQC

AR00016208



Wetlands - Oahu
Kapolei to Diamond Head Corridor

wetland
major road
Pacific Ocean

This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD5/99-02650R

Mr. David W. Blane, Director
State of Hawaii
Department of Business, Economic Development and Tourism
Office of Planning
P. O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Blane:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 24, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. The financial plan is described in Chapter 6.
2. The costs of the alternatives are provided in Section 2.3.
3. Project alternatives are discussed in Chapter 2. An increased focus on bicycles as a serious transportation mode for some travel markets is included in all of the alternatives. An intra-island ferry system is currently being demonstrated.
4. The Sand Island analysis has been shifted to the Oahu Regional Transportation Plan (ORTP). Moreover, bicycles in combination with ferries could not accommodate the existing or future travel demand.
5. The Sand Island analysis has been shifted to the ORTP.
6. Water resource issues are addressed in Section 5.8.
7. Transportation Demand Management (TDM) programs are included in the build alternatives, but are not expected to address projected increases in travel demand fully in the primary transportation corridor. The advantages of efficient transit would encourage people to use their cars less. The use of specific disincentive and education programs on alternative transportation is a policy decision to be made by the City Council.

8. The project alternatives, including the use of park-and-rides and other transit support facilities are discussed in Chapter 2.
9. One of the purposes of the BRT Alternative is to establish future nodes of redevelopment within the Primary Urban Center.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

99 JUN 1 P2:51

RECEIVED

May 28, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapi'olani Boulevard, Suite 1200
Honolulu, Hawai'i 96813

EIS (99) 298

Re: Primary Corridor Transportation Project

Dear Ms. Soon:

Thank you for the opportunity to comment on the Notice of Intent to prepare and Environmental Impact Statement for the Primary Corridor Transportation Project. We would also like to thank Faith Miyamoto from your office for taking the time to review the project with us on May 21, 1999.

At our meeting, we discussed the possible routes and configurations of the system. Our main concern is for routes that will involve coastal or previously coastal areas. In those areas, the likelihood of finding burials, cultural or archaeological resources is much greater. When routes or configurations affect those areas we urge you to prepare detailed archaeological and cultural information and to address mitigation in a manner which will minimize the concerns of the native Hawaiian community.

1 In order to accomplish this task we suggest that:

- An archaeological survey of the project area must be completed.
- A determination of eligibility for the NHR register must be completed for cultural/archaeological sites found within the project area.
- Meaningful, pre-decision consultation with OHA, as required by the National Historic Preservation Law, must occur.

In addition, gathering and religious rights may exist within the project corridor in those areas which have not been previously used for transportation. It is essential that the existence of these rights be determined early. In order to accomplish this, we suggest that you work with

2 a Hawaiian cultural expert. We suggest that this person(s) should be recognized within the Hawaiian community for his/her cultural expertise. Hawaiian culture exists and is practiced every day in Hawaii. We caution that the concerns of the community will not be addressed if the cultural analysis is provided solely by an archeologist or anthropologist.

Again, thank you for the opportunity for early participation in this project. If you have any questions, please contact Lynn Lee, EIS Planner at 594-1936.

Sincerely,

C. Sebastian Aldet
Land and Natural Resources Division Officer

cc: Board of Trustees

AR00016211

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD6/99-02709R

August 16, 2000

Mr. C. Sebastian Aloot
Land and Natural Resources Division Officer
State of Hawaii
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Aloot:

Subject: Primary Corridor Transportation Project

Thank you for the letter dated May 28, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided:

1. Archaeological and cultural issues are addressed in Sections 3.10 and 5.10. Coordination with the SHPD is continuing on historic sites and sites eligible for the National Register.
2. Traditional cultural properties or practices are addressed in Sections 3.10.2.4 and 5.10.4.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

MAJOR GENERAL EDWARD V. RICHARDSON
DIRECTOR OF CIVIL DEFENSE

ROY C. PRICE, SR.
VICE DIRECTOR OF CIVIL DEFENSE

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

PHONE (808) 733-4300
FAX (808) 733-4287

June 24, 1999

JUN 28 3:41

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Primary Corridor Transportation Project

1 The Primary Corridor Transportation Project could affect between one and five existing outdoor warning sirens currently in place along the corridor, depending upon the exact placement of the new infrastructure. When more detailed information is known as to routes and/or demolition and construction, more specific comments will be provided relating to siren warning infrastructure relocations which must be planned to support the project.

If there are any questions, please contact Mr. Ogasawara of my staff at (808) 733-4300.

Sincerely,

ROY C. PRICE, SR.
Vice Director of Civil Defense

c: Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Oahu Civil Defense Agency

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD6/99-03185R

Mr. Roy C. Price, Sr.
Vice Director of Civil Defense
State of Hawaii
Department of Defense
Office of the Director of Civil Defense
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

Dear Mr. Price:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated June 24, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following response to your comments is provided:

1. Potential impacts to the siren warning system are addressed in Section 5.12.10.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON

Enclosure

cc: Parsons Brinckerhoff Quade and Douglas, Inc.

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 527-5863 • FAX: (808) 527-5876

JEREMY HARRIS
Mayor

KENNETH E. SPRAGUE, P.E., Ph.D.
Director

BARRY FUKUNAGA
Deputy Director

ENV 99-54

APR 30 1999

MEMORANDUM

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: KENNETH E. SPRAGUE, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPN)
PRIMARY CORRIDOR TRANSPORTATION PROJECT

We have reviewed the subject EISPN and have no comments to offer at this time.

Should you have any questions, please contact Alex Ho at 523-4150.

cc: Office of Environmental Quality Control

AR00016213

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4939 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPDS/99-02143R

August 16, 2000

MEMORANDUM

TO: KENNETH E. SPRAGUE, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for your memorandum dated April 30, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project. We understand that you have no comments at this time. Your memorandum will be included in the Major Investment Study/Draft Environmental Impact Statement.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

CHERYL D. SOON

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET, SUITE H425
HONOLULU, HAWAII 96819-1869

JEREMY HARRIS
MAYOR

ATTILIO K. LEONARDI
FIRE CHIEF

JOHN CLARK
DEPUTY FIRE CHIEF

May 13, 1999

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: ATTILIO K. LEONARDI, FIRE CHIEF

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
ENVIRONMENTAL ASSESSMENT (EIS PREPARATION NOTICE)

In response to your letter dated April 21, 1999, regarding the above subject matter, we have reviewed the Environmental Assessment (EIS Preparation Notice) and foresee no significant impact on the services we provide. We will maintain our current level of service.

Should you have any questions, please call Battalion Chief Peter Gaskell of our Administrative Services Bureau at 831-7735.

ATTILIO K. LEONARDI
Fire Chief

AKL/PHG:cn

RECEIVED
99 MAY 14 13:01

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4525 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02379R

August 16, 2000

MEMORANDUM

TO: ATTILIO K. LEONARDI, FIRE CHIEF
FIRE DEPARTMENT

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for your memorandum dated May 13, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project. We understand that you foresee no significant impact on the services you provide. Your memorandum will be included in the Major Investment Study/Draft Environmental Impact Statement.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

CHERYL D. SOON

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 • AREA CODE (808) 529-3111
http://www.honolulupd.org

JEREMY HARRIS
MAYOR

LEE D. DONOHUE
CHIEF

WILLIAM B. CLARK
MICHAEL CARVALHO
DEPUTY CHIEFS

OUR REFERENCE CS-DL

May 18, 1999

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: LEE D. DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for the opportunity to review and comment on the subject document.

The Honolulu Police Department is in favor of and supports transportation improvements in the primary transportation corridor.

We have no comment to offer at this time relative to the proposed alternatives but may have as the plans are more defined.

If there are any questions, please call me at 529-3255.

LEE D. DONOHUE
Chief of Police

By
EUGENE UEMURA
Assistant Chief
Support Services Bureau

cc: Ofc. of Environmental Quality Control

AR00016215

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02475R

August 16, 2000

MEMORANDUM

TO: LEE D. DONOHUE, CHIEF OF POLICE
POLICE DEPARTMENT

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for your memorandum dated May 18, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project. We understand that you have no comments at this time. Your memorandum will be included in the Major Investment Study/Draft Environmental Impact Statement.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

CHERYL D. SOON

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 10TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4182 • FAX: (808) 523-4854

JEREMY HARRIS
MAYOR

WILLIAM D. BALFOUR, JR.
DIRECTOR

MICHAEL T. AMII
DEPUTY DIRECTOR

May 24, 1999

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: WILLIAM D. BALFOUR, JR., DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

We have reviewed the environmental assessment preparation notice and have no comment to offer at this time. However, we look forward to reviewing the Draft Environmental Impact Statement (DEIS).

Thank you for the opportunity to present comments for the DEIS. Should you need further information, please contact Mr. John Eveland, Executive Assistant, at 527-6038.

WILLIAM D. BALFOUR, JR.
Director

WDB:cu
(99-0570GT)

cc: Office of Environmental Quality Control

RECEIVED
99 MAY 25 P2:26

AR00016216

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02578R

August 16, 2000

MEMORANDUM

TO: WILLIAM D. BALFOUR, JR., DIRECTOR
DEPARTMENT OF PARKS AND RECREATION

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for your memorandum dated May 24, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project. We understand that you have no comments at this time. Your memorandum will be included in the Major Investment Study/Draft Environmental Impact Statement.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

CHERYL D. SOON

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4414 • FAX: (808) 527-6743

JEREMY HARRIS
MAYOR

JAN NAOE SULLIVAN
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

1999/CLOG-2692(ASK)
'99 EA Comments - Various Zones

May 26, 1999

MEMORANDUM

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: JAN NAOE SULLIVAN, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPN) FOR PRIMARY CORRIDOR TRANSPORTATION PROJECT

We have reviewed the above-referenced document and have no comments to offer at this time. We look forward to reviewing the draft environmental impact statement for this important and timely project.

1 A matrix of the alternatives and options being considered would help reviewers compare the similarities and differences of the different proposals.

Should you have any questions regarding the above, please contact Ardis Shaw-Kim of out staff at Extension 5349.

JAN NAOE SULLIVAN
Director of Planning
and Permitting

JNS:am

pcase doc: 4721
g:\corridor.ask

RECEIVED
'99 MAY 27 A9:58

AR00016217

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02628R

August 16, 2000

MEMORANDUM

TO: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for the memorandum dated May 26, 1999 from Ms. Jan Naoe Sullivan, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

The comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of the written comments, which have been numbered. The following response is provided:

1. Project alternatives are discussed in detail in Chapter 2.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

CHERYL D. SOON

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843

JEREMY HARRIS, Mayor

EDDIE FLORES, JR., Chairman
FORREST C. MURPHY, Vice Chairman
KAZU HAYASHIDA
JAN M.L.Y. AMI
BARBARA KIM STANTON
CHARLES A. STED

CLIFFORD S. JAMILE
Manager and Chief Engineer

May 13, 1999

'99 MAY 24 A8:22

TO: MS. CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: CLIFFORD S. JAMILE

SUBJECT: YOUR MEMORANDUM OF APRIL 21, 1999 REGARDING THE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for the opportunity to review and comment on the Environmental Impact Statement Preparation Notice (EISPN) for the proposed primary corridor transportation project.

1 We have no objections to the proposed transportation improvements in the primary transportation corridor of Oahu. The construction plans should be submitted for our review and approval. We reserve further comments until the infrastructure improvement plans are formalized.

If you have any questions, please contact Barry Usagawa at 527-5235.

cc: Office of Environmental Quality Control

Pure Water . . . may s greatest need – use it wisely

AR00016218

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02459R

August 16, 2000

MEMORANDUM

TO: CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for your memorandum dated May 13, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which has been numbered. The following response to your comment is provided.

1. Potential construction impacts on utilities are addressed in Section 5.12.10.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

CHERYL D. SOON

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

OMPO

Oahu Metropolitan Planning Organization

Ocean View Center, Suite 200
707 Richards Street
Honolulu, Hawaii 96813-4623

(808) 587-2015
(808) 523-4178
FAX (808) 587-2018

May 24, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Primary Corridor Transportation Project

We have reviewed the Environmental Assessment (EIS Preparation Notice) for the above-mentioned project and offer the following comments.

1. The 2020 Oahu Regional Transportation Plan (2020 ORTP) identified a rapid transit system which extended from Pearl City to the University of Hawaii at Manoa. Although the plan did not specify or recommend a type of system, it assumed attributes of the Honolulu Rapid Transit Program's Locally Preferred Alternative rail rapid transit system. This system assumed that the rapid transit operated on exclusive right-of-way and was of a high-capacity.

   The Primary Corridor Transportation Project identified three Light Rail Transit (LRT) alternatives along a similar corridor with the 2020 ORTP, but with limited sections of exclusive bus lanes. 1

   How do these LRT alternatives compare against the person-carrying capacity of the rapid transit system identified in the 2020 ORTP? Will other transit and/or highway projects be needed if the person-carrying capacity of the proposed LRT alternatives identified in the Primary Corridor Study is less than what the rapid transit project assumed in the 2020 ORTP?

2. In Section 1.4.4 Land Use Development in the Central Urban Core, it mentioned that one of the major objectives of the 21st Century Oahu Vision was to concentrate new development within the established urban core of Honolulu. 2 Is this an official City land use policy? If not, will the official City land use policy also be tested in the Primary Corridor Transportation Project?

3. The Primary Corridor Transportation Project identified many major roadway projects such as a Sand Island Bypass Road via a tunnel under Fort Armstrong Channel, a Nimitz Parkway, the closing of Nimitz Highway between Queen Street and South Street, redesigned freeway ramps, and improvements to H-1 to allow for the p.m. operation of the Zipper Lane.

   Many of the related highway projects being proposed in the Primary Corridor Transportation Project must be prioritized within the context of the ORTP. Although these projects may be important to the Primary Corridor Transportation Project, there may not be sufficient funds to implement these projects or there may be other higher priority projects on Oahu that deserve the limited funding resources. These priority decisions must be made in the larger context of the ORTP where all regional Oahu transportation projects are considered. 3

4. In Section 1.4.2 Socioeconomic Growth, the report talked about the projected population increase in 2020. Will the Primary Corridor Transportation Project use 2020 as its horizon year?

   OMPO is in the process of updating its 2020 ORTP to 2025 and is expecting to complete this plan in November 2000. DTS and the OMPO Policy Committee should discuss the requirements and analysis needed to ensure the smooth integration of the Primary Corridor Study results into the 2025 ORTP. The horizon year used may be just one of the many issues related to this concern. 4

Thank you for the opportunity to comment on your document. If you have any questions regarding this matter, please call me.

Sincerely,

Gordon G.W. Lum
Executive Director

c: Office of Environmental Quality Control

AR00016220

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02554R

August 16, 2000

Mr. Gordon G. W. Lum, Executive Director
Oahu Metropolitan Planning Organization
Ocean View Center, Suite 200
707 Richards Street
Honolulu, Hawaii 96813-4623

Dear Mr. Lum:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 24, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. The proposed project is consistent with the Oahu Regional Transportation Plan (ORTP). As presently designed, the Bus Rapid Transit system proposed in this transit project would have less capacity than that designed in the early 90's.
2. It is City policy to focus growth in the Primary Urban Center and in Kapolei, thereby keeping the country country.
3. This project is one of the named high-priority projects in the ORTP.
4. The project's horizon year is 2025.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

AR00016221

Leeward Oahu Transportation Management Association

May 24, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Re: Environmental Impact Statement Preparation Notice (EISPN) for Primary Corridor Transportation Project

Dear Ms. Soon: Cheryl

After reviewing the EISPN, we offer the following comments and questions on the proposed study alternatives for your consideration:

1. **Sec. 2.2 Enhanced Bus/TSM Alternative** - According to Fig.2.2, this alternative proposes to include four (4) new park-and-rides, five (5) new transit centers, and two (2) special freeway ramps, in addition to bus priority treatments on various arterial streets from Kapolei to Waikiki. Surprisingly, major segments of a previously-indicated bus priority arterial (Kamehameha Highway from Wahiawa to Radford Dr.) are not indicated, such as 1) the portion from Wahiawa to its connection with Farrington Highway and on to what appears to be Kamehameha Highway at Waimano Home Road, and 2) from Pearlridge to Radford Dr. Hopefully, this was just an oversight. If not, what is the reason for the change? Since Kamehameha and Farrington Highways are the trunk line routes for buses serving West/ Central Oahu, bus priority treatments on these highways will be vital to improving the delivery of transit services and increasing ridership. (1)

2. **Sec. 2.3 Bus Rapid Transit (BRT) Alternative** - A faster, more efficient bus service linkage between West Oahu and the PUC will be the key to making the use of transit an attractive and convenient alternative to driving and improving the accessibility to jobs in either direction. Therefore, the study of a bus rapid transit system should be as comprehensive and extensive as possible, in order to provide the community with a clear understanding of estimated costs and benefits of proposed BRT alignments. (2)

   Based on Fig. 2.3, however, it is not clear what the BRT alternative is, because it seems to involve a variety of proposals and only identifies one BRT alignment (Middle St. to the University of Hawaii). For the area between Kapolei and Middle Street, it only differs from the Enhanced Bus alternative by the addition of a transit center at the Waiawa Interchange and seven (7) special freeway ramps. Then, in addition to the Middle St.-U.H. arterial BRT, there is a light rail route to Waikiki, a Nimitz Parkway, and a Sand Island Bypass. What is interesting is that while this alternative contains an LRT route for Waikiki, none of the LRT alternatives propose LRT for Waikiki. (3)

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   The emphasis of this alternative seems to concentrate only on bus services during peak commute periods into and out of the PUC, relying on H-1 and H-2 HOV lanes and A.M./P.M. zipper lanes. The only identified "BRT" route on the map is from Middle Street to the U.H.

   We would like to suggest that this alternative study a defined BRT route that replicates the Light Rail Alternative #1, extending the U.H.-Middle Street BRT westward to several termini, such as Pearlridge, Waiawa Interchange, Kunia/Ft. Weaver transit centers, and Kapolei? By doing so, a BRT alignment would be in place for later conversion to LRT, in the event it is not financially feasible to initially extend any LRT beyond Middle Street. Since LOTMA and many Leeward/Central Oahu communities have advocated the extension of an LRT alternative beyond Pearlridge, a defined BRT route would serve as a well-thought out intermediate alternative that will be useful in serving major activity and employment centers west of the PUC, including U.H.-West Oahu, Barbers Point Redevelopment, and the water park and sports complexes in Kapolei. It would also provide an effective means to serve the reverse commute market, which at this time must rely heavily on the automobile to get to Kapolei. (4)

   Because the Nimitz Parkway and Sand Island Bypass involves major capital improvements within the state's jurisdiction, we believe that these options should not be studied at this time. Time and resources could be more effectively spent on thoroughly developing the BRT and LRT alternatives. (5)

3. **Light Rail Transit (LRT) Alternatives** - Since none of the LRT alternatives are proposed past Pearlridge, it is unclear why the special freeway ramps and Waiawa Transit Center (as proposed in the BRT alternative) are not included in this alternative. (6)

4. During the conceptual engineering phase, will it be possible to mix and match portions of the BRT and LRT alternatives? (7)

Thank you for the opportunity to offer these comments. We look forward to the opportunity to review the Draft EIS.

Sincerely,

Darrlyn T. Bunda

Darrlyn T. Bunda
Executive Director

cc: Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

AR00016222

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALOI, JR.
DEPUTY DIRECTOR

TPDS/99-02569R

August 16, 2000

Ms. Darrlyn T. Bunda, Executive Director
Leeward Oahu Transportation Management Association
94-229 Waipahu Depot Road, #407
Waipahu, Hawaii 96797

Dear Ms. Bunda:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 24, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided:

1. These measures are included in the No-Build Alternative and, therefore, all of the alternatives.
2. A cost-benefit analysis is provided in Chapter 7.
3. Project alternatives are discussed in Chapter 2. All alternatives under consideration include service to Waikiki.
4. Sections 4.1 and 4.2 address transportation impacts of the project. The proposed alternatives would improve transportation in both directions. All of the alternatives include provisions for enhancing mobility within the Ewa area through increasing roadway connectivity and capacity, and enhanced transit service. The Transportation System Management (TSM) and Bus Rapid Transit (BRT) Alternatives increase transit accessibility within and to Kapolei/Ewa, through the use of a "hub-and-spoke" bus network configuration. These alternatives support the development of Kapolei as both a residential and employment center. The TSM and BRT Alternatives would both improve transit service along the Waianae coast. Travel demand forecasting indicates that there will still be substantial travel between the Primary Urban Center (PUC) and other parts of the island, and within the PUC.

5. The Sand Island analysis has been shifted to the Oahu Regional Transportation Plan.
6. Project alternatives are described in detail in Chapter 2. The BRT Alternative, which has since replaced the Light Rail Transit Alternatives, does include bus ramps.
7. Project alternatives are discussed in detail in Chapter 2. Each alternative is analyzed as a package; project components are not assessed individually and are not necessarily interchangeable.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

AR00016223

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May 18, 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Blvd, Ste. 1200
Honolulu, HI 96813

RE: Primary Corridor Transportation Project

Dear Ms. Soon:

Thank you for the opportunity to comment on the above referenced Environmental Impact Statement Preparation Notice (EISPN). We have reviewed the document and offer the following comments at this time:

The proposed action is intended to address existing and future transportation demand and capacity needs; support socioeconomic growth on the island and in the corridor; improve public transit services; facilitate land use development in the central urban core consistent with the vision for Oahu as being articulated at community meetings; and support current planning activities and policies.

1 We do not understand why the City is using the Visioning Program as justification and background for this transportation study. The community based visioning teams met separately from the Oahu Trans 2K meetings. Instead, thorough studies should be provided showing the need for this plan.

2 We hope that when the public hearing is held on the Draft Environmental Impact Statement (DEIS), it will be truly a public forum. The format at the public scoping meeting did not create an opportunity for the community to publicly ask questions and voice their concerns. By blocking communication, an atmosphere of secrecy prevails. It is important for participants and interested community members to hear what others are asking about the project.

3 We are interested in knowing when the Locally Preferred Alternative (LPA) will be announced to the public. What happens if the LPA is not the best alternative based on preliminary engineering? When will the public be notified and what changes will be made to accommodate this?

4 The Primary Urban Center is the origination point for close to 59% of all island wide travel, why does this project study begin in Kapolei and end at the University of Hawaii? Why doesn't this study continue to Kahala?

5 The DEIS must discuss in detail the fate of the street trees along the transit corridor. Also, if a
6 light rail system with overhead lines is proposed, what kinds of impacts would it make on street trees as well as community efforts to place all above ground wires underground?

Thank you for the opportunity to comment. I look forward to receiving a copy of the Draft Environmental Impact Statement and being kept informed as this project progresses.

Sincerely,

Mary Steiner
CEO

cc: Office of Environmental Quality Control
Parsons Brinckerhoff Quade & Douglas

AR00016224

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02481R

August 16, 2000

Ms. Mary Steiner, CEO
The Outdoor Circle
1314 South King Street, Suite 306
Honolulu, Hawaii 96814

Dear Ms. Steiner:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 18, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. The project's purposes and needs are discussed in Chapter 1. The planning for this project has been coordinated with the visioning process because transportation plans address other quality of life issues, included in the visioning process.
2. Appendix A summarizes the efforts that have been made to provide opportunities for public participation. Comments from the public are welcome at any point.
3. It is expected that the City Council will select the Locally Preferred Alternative in late 2000. The City Council will weigh a variety of factors, including engineering, into its decision.
4. The imbalance between travel demand and system capacity is worse in the corridors Ewa of Downtown. While needed, improvements beyond Waikiki and UH-Manoa are lower priority. A circulator service has just begun between Waikiki and Kaimuki, which may help relieve some of the demand.
5. Potential impacts on street trees are addressed in Section 5.7. None of the proposed alternatives will require a catenary system.

6. No overhead lines would be required under any of the alternatives. Efforts to underground wires and other utilities are addressed in Section 5.12.10.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

AR00016225

Monday, May 24, 1999

Kenneth Hamayasu, Chief
Transportation Planning Division
Department of Transportation Services
City and County of Honolulu
711 Kapolei Boulevard, Suite 1200
Honolulu, Hawai'i 96813 FAX 527-6987

RE: Comments on Primary Corridor Transportation Project, Environmental Assessment (Environmental Impact Statement Preparation Notice); Scoping Activity

Dear Mr. Hamayasu,

I am writing to you on behalf of the Hawai'i Bicycling League (HBL). A letter in official stationary will follow in the mail. This letter addresses our concerns with regard to the document entitled, ": Comments on Primary Corridor Transportation Project, Environmental Assessment" (April 1999) connected to the scoping activity held in May 1999.

Access to the report , public input and planning process (for scoping)

1
- Is the report accessible to the public and particularly people with disabilities?
- Was the report available on the Internet in a text file format? People with disabilities were not noticeably participating in the O'ahu Trans 2K events. Lack of transportation alternatives is probably the number one reason why persons with disabilities cannot participate in community affairs. Was there electronic access to

2 document and opportunities to provide feedback by May 24, 1999? There was no fax number available on the report to fax back comments – only an address.

- The report was produced in less than a 12 point font. Production of reports in at least a 12 point font makes it easier and slightly more accessible to an aging population. The maps were also difficult to read due to the very small print.
- There was only one meeting of which HBL was aware for public participation. Will there be any future meetings regarding scoping? The time was relatively limited for

3 feedback – if HBL could request a slight extension of the feedback period (i.e., about two weeks beyond the May 24th deadline), there would be an opportunity to make members aware of this document and encourage our members to provide additional feedback.

- Are there any plans to include other scoping meetings available to other parts of the

4 island not in the primary corridor? Persons living in outlying areas may not have been able to attend the meeting.

- The description of events that will coordinate federal and state requirements for

3 movement on this plan (p. 4) was quite useful. It would be very helpful to have the report provide a estimated timeline for the various activities: the scoping activities, the Draft EIS and public hearing (or hearings??), the LPA (locally preferred alternative) will be determined and engineering will be performed during the final EIS. After this, the Governor may accept the final EIS and at the federal level a ROD (record of decision) will be prepared and signed by the Regional Administrator which details the LPA and any environmental mitigation commitments. The purpose of the scoping activity is still unclear.

Assumptions inherent in the planning

- All the plans still seem to focus on roads and cars in competition with buses on roads as opposed to planning options that would mindfully increase pedestrian and

5 bicycling options. Any plans or mention of pedestrian, bicycling or access for persons with disabilities is glossed over.

- There are assumptions about the increase in population over time (p. 28) and the increase in the number of employees by 37%. There is an assumption or calculation that the speed of buses will be decreased while the number of buses on the road will increase from 525 to 800. There is no discussion about the number of cars increasing (which has been the trend) or that if the buses are slowing down, the cars will

6 probably travel more slowly too.

- There is no discussion of the number of cars on the road, the number of persons per car on the road, or the speeds of cars using the road. Implicitly it appears that the number of car miles will be reduced – but there fails to be evidence of this from the information provided.
- Without better information on the decrease in miles traveled overall, there is some question about the air quality maintenance. Anyone who has bicycled or walked near

7 our streets on a Kona wind or no wind day can tell you that the air is substantially dirtier and less hospital to those not driving around in an air conditioned unit (e.g., cars).

5
- There is no detail regarding pedestrian or bicycling access considerations.
- There is no discussion of an education process for the public about transportation

8 alternatives and options during the planning, engineering, development and implementation process.

- The idea of concentrating growth density along this primary corridor may tend to

9 make parts of the main streets or hubs for transit undiveable for all but the poorest in our communities who cannot afford to live elsewhere.

Attributes in planning that we prefer

- We would prefer, in order to make our communities liveable, to plan with the following priorities as objectives of any plan:

5
  - Pedestrian traffic is first priority
  - Alternative methods of transportation is second priority (buses, bikes, mass transit of other types), and finally,
  - Put the private automobile in third place priority.

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This was presented in the vision-like process that was promoted during Mayor Harris's meetings. There was a video which described the traffic planning in Portland, Oregon and this was the premise of the planning there.

- Discuss in detail what facilities would make the streets less "mean" and more friendly to pedestrians, bicyclists and persons with disabilities. Consider:
  - Triggers or sensors on the streets that can be triggered by something as "light" as a bicycle (so we don't need to get off our bikes and push a button or ride up on the sidewalk to push the buttons to get the light to change).
  - Reduce and eliminate the triggers on street lamps for pedestrians to press in order to cross the streets. Many or most of these buttons are broken after a period of time and either are permanently pressed in or don't function when pressed so that the pedestrian can cross the street at all. These triggers effectively convey to pedestrians that they are second class citizens because automobile traffic is always given first priority.
  - Discuss disincentives that will cause people to leave their cars at home or not buy them in the first place. Many countries use disincentives effectively without major complaints from citizens. Many citizens suffer in countries were intelligent use of disincentives are not employed and the car remains king (i.e., Bangkok, Thailand). Disincentives are a legitimate policy alternatives and should go hand-in-hand with public education about broadly defined transportation system costs.
  - Assure that transit centers, park & ride facilities and all transportation projects include services to pedestrians, bicyclists and persons with disabilities.
  - Assure that all new transit equipment is accessible.
    - Bike racks should be available or bikes should be able to be brought aboard a light rail, trolleys, ilmited stop buses and ferries.
    - Do not move to the longer "unfriendly" buses – try double decker buses with the first floor accessible to persons with mobility challenges.
    - Promote bicycles as "circulators."
  - Assure that the Master Bike Plan that was developed previously and other information such as the City and County curb cut plan are available and participants are aware of these documents and their implications. (Help citizens connect the dots between these planning efforts.)
  - Assure that if a tunnel is part of the light rail system mentioned on page 13, that there is access to persons walking or bicycling through the tunnel that is clean of debris and sufficiently wide to move along in safe distance from the traffic.
  - Assure that new or redeveloped freeways and freeway ramps improve and do not impinge on pedestrian and bicycling facilities. These are opportunities to make facilities MORE accessible to pedestrians and bicyclists and should be developed or redeveloped with that in mind.
  - Provide education about transportation alternatives and their costs. Most costs for pedestrian walkways and bicyclists are not necessarily capital intensive. Education for the public certainly is not. These costs should be put in a form that people can see the immediate and longer term maintenance costs for building parking lots and structures compared to facilities that improve mobility and assure safety for pedestrians and bicyclists.

- Do NOT create substitute or alternative freeway routes out of residential, business, commercial or mixed use streets (see 2.3). Current examples of this type of planning are Wai'alae Avenue, Kina'u Street, and Ward Avenue, to mention but a few.
- Water resource use is a concern. There should be a commitment made to use plants that are indigent to the area and reduce the need for further water consumption by choosing plants are salt water or brackish water tolerant and drought resistant (i.e., use of xeroscaping alternatives along the waterfront, along streets, etc. for beautification). Plans to use recycled and "gray" water to provide water for these spots would also be forward thinking.
- We strongly support that there is no reduction of green spaces for high density residential areas. During the vision-like process it was very clear that residents from neighborhoods such as Makiki and Moiliili suffer a decreased quality of life with very few green spaces available to densely populated areas.
- Social and economic impacts on people living in the most densely populated should be examined with respect to the amount of road dust and increases in heat and the need for air conditioning. Who are the people (i.e., demographics of the population, age, ethnicity, the number of people in a family unit and space) who are suffering these environmental impacts?

Other problems with this discussion of transportation

- The boundaries used in various reports are not consistent for planning purposes and in the planning documents. This is confusing for the lay person, even one who attempts to follow along and attend the many meetings related to various plans. This plan discusses the primary urban corridor. How does that relate to the bicycling plans taking place all over the island of O'ahu? How does that relate to the Master Bike Plan for O'ahu? In the longer run (say 20 years'time), wouldn't the primary corridor run from Hawai'i Kai to Kapolei? Making the boundaries consistent in these planning efforts:
  - Reduces confusion for citizens who want to be involved.
  - Decreases inconsistencies in planning efforts and trying to incorporate different planning efforts (i.e., achieving both the results of the Master Bike Plan and the visioning team efforts).
  - Could result in making the process of planning and the technologies used in the process more "transparent" (easily understood, mentally graspable) to the lay person.
- The planning process needs to be transparent. Citizens should be able to understand the need for coordination among neighborhoods, see evidence of coordination among state/county/other local agencies in the time lines, budgeting process, plan development and engineering, and implementation processes.
- In an effort to make planning transparent, there could be one page documents to be faxed on demand or available via a regularly updated accessible website.
- Provide funds for studies to determine what works and what doesn't work to promote cycling and walking locally as substitutes for personal cars.

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17 • Focus on the need to make connections with advocacy groups for pedestrians and bicycling. There are few groups and the transportation departments should make an effort to acknowledge the importance of these groups and their activities.

Thank you for this opportunity to provide comments.

Robin Brandt
For Hawai'I Bicycling League
My address: 3227 Melemele Place, Honolulu, HI 96822
Phone (home): 988-5048
E-mail: rbrandt@lava.net

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD00-00407

August 16, 2000

Ms. Robin Brandt
Hawaii Bicycling League
3227 Melemele Place
Honolulu, Hawaii 96822

Dear Ms. Brandt:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 24, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided:

1. Appendix A summarizes the efforts that have been made to provide opportunities for public participation. Comments on the Major Investment Study/Draft Environmental Impact Statement will be welcomed during the public comment period.
2. The method of disseminating the Major Investment Study/Draft Environmental Impact Statement is still under study. Large fonts were not used to comply with the Major Investment Study/Draft Environmental Impact Statement page limits. Please contact the department if you have difficulty reading the document.
3. The project schedule is provided in Section 2.5. The purpose of the scoping activity is to help focus the Major Investment Study/Draft Environmental Impact Statement on the important issues.
4. Appendix A summarizes the efforts that have been made to provide opportunities for public participation. Oahu Trans 2K meetings were held all around the island, not just in the PUC.
5. Chapter 1 discusses the project's purpose and need, one of which is to make the PUC much roore pedestrian friendly. Investment in transit systems promnte the pedestrian mode as a viable mode of travel. However, pedestrian travel alone cannot accommodate regional travel demands. Chapter 4 discusses transportation issues. DTS and SDOT will continue to promote alternative transportation (e.g. SDOT will continue to promote the zipper lane and the Vanpool program, and DTS will continue to promote its limited stop transit services, City Express! and Country Express!). By using existing street capacity as a dedicated transitway, the BRT Alternative would create incentives for the increased use of multiple-occupant vehicles along the alignment of the In-Town BRT. Both SDOT and DTS have developed master plans to enhance the network of bicycle facilities and increase bicycling as a serious transportation mode for some travel markets. Improvement of bicycle facilities is included in the BRT Alternative. All transit facilities would be equipped for disabled access. Pedestrians and bikes are very much a part of the TSM and BRT Alternatives, but they alone cannot satisfy all of the travel markets that must be accommodated. The transit systems contained in all of the alternatives must be compatible with the Americans with Disabilities Act (ADA) requirements. DTS will continue to support programs to foster alternative transportation, such as the hub-and-spoke bus system and traffic calming, and Vanpool. Transportation Demand Management (TDM) programs are included in the alternatives, but are not expected to address projected increases in travel demand fully in the primary transportation corridor. The advantages of efficient transit would encourage people to use their cars less. The use of specific disincentives and education programs on alternative transportation is a policy decision to be made by the City Council.
6. Extensive traffic modeling was done as part of the planning process. See Chapter 4 for details.
7. Section 5.5 discusses potential air quality impacts, based on projected traffic information.
8. See Appendix A.
9. Environmental jnstice issues are addressed in Section 5.3.5.
10. Such plans are available with DTS and/or at major state libraries.
11. The highway alternative was considered and rejected, as discussed in Section 2.6.
12. Natural resource issues are addressed in Sections 5.7 and 5.8.
13. Land use issues are discussed in Sections 3.1 and 5.1. Neighborhood impacts and environmental justice are addressed in Section 5.3.
14. The discussion on bicycle plans is in Section 4.5. The primary transportation corridor is defined where most traffic occurs. Congestion problems Koko Head of Kahala are much less severe.
15. Appendix A describes the coordination and outreach efforts involving agencies and the public. A project schedule is provided in Section 2.5; the financial plan is in Chapter 6.

16. Other programs within DTS are focusing on promoting bicycle and pedestrian improvements. However, bicycle and pedestrian modes cannot satisfy all travel markets, so other solutions need to be explored.
17. See Appendix A.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

LIFE OF THE LAND

Ua Mau Ke Ea O Ka `Aina I Ka Pono

Hawai`i's own Community Action Group
Protecting our Fragile Environment through
Research, Education, Advocacy and Litigation

May 22, 1999

Kenneth Hamayasu
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Robert Bramen
Parsons Brinkerhoff Quade & Douglas
1001 Bishop Street, Suite 3000
Honolulu, HI 96813

Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

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99 MAY 24 P 3:52

re: Environmental Impact Statement Preparation Notice for the Primary Corridor Transportation Project

Aloha Kenneth Hamayasu and Robert Bramen,

Life of the Land is Hawai`i's own environmental and community action group serving Hawai`i since 1970. Our mission is to preserve and protect the life of the land, to promote sustainable land use and energy policies and open government through research, education, advocacy and litigation.

The following comments constitutes our position on the EIS preparation notice for the proposed project. We have included Enhanced Bus System & Commuter-Based Dedicated Bicycle Lane System Alternatives which are based on minimizing environmental impacts. They are practical, reasonable, and feasible and makes common sense. The alternatives conforms with alternatives that must be evaluated under both the National Environmental Policy Act (NEPA) and the Major Investment Study process.

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Chapter 1: Summary

1.1 The Environmental Review Process

Status: Environmental Impact Statement Preparation Notice (EIS PN) First Notice pending public comment. Numerous meetings (50+) created numerous ideas (2000+) which led the consultant to publish a 44 page document called "Islandwide Mobility Concept Plan". The consultant also wrote 7 pages of text for the Environmental Impact Statement Preparation Notice.

Approving Agency/Accepting Authority: Governor, State of Hawaii * c/o OEQC * 235 S Beretania St. #702 * Honolulu, HI 96813 & US DOT * Federal Transportation Administration.

Consultant: Robert Bramen @ Parsons Brinkerhoff Quade & Douglas * 1001 Bishop Street, Suite 3000 * Honolulu, HI 96813

Public Comment Deadline: May 24, 1999

Permits Required: Sec. 404, 10, 142(e) (sole source aquifer), SCAD, State Historic Preservation Division (SHPD) Review, Coastal Zone Management (CZM) Consistency, National Pollution Discharge Elimination System (NPDES), Water Quality Criteria (WQC), Shoreline Management Area (SMA) Permit, Special Design District, Floodplain Variance, Building Permit, Grubbing Permit, Grading Permit

Description: The City and County of Honolulu Department of Transportation Services (DTS), in cooperation with the U.S. Department of Transportation, Federal Transportation Administration (FTA), will be preparing an

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Environmental Impact Statement (EIS) for proposed transit improvements in the primary corridor of Oahu. The corridor extends from Kapolei in the Ewa District to the University of Hawaii at Manoa. Because the project may have substantial impacts, DTS is required by both State and Federal law (Chapter 343 of the Hawaii Revised Statutes and the National Environmental Policy Act) to prepare an Environmental Impact. The EIS will satisfy both State and federal requirements. A public scoping meeting will be held to allow for comment on the project, its impacts, and the technical evaluation.

The project is intended to address transportation requirements; improve public transit services; direct future land use development patterns; and implement existing transportation plans.

1 The alternatives must be considered include a No-Build Alternative, an Enhanced Bus / Transportation System Management (TSM) Alternative, a Super Enhanced Bus / Transportation System Management (TSM) Alternative, a Dedicated Bicycle Lane Alternative, a Bus Rapid Transit (BRT) Alternative, and a Light Rail Transit (LRT) Alternative. Variations on the alternatives are also being addressed, including a Sand Island Bypass Road and Nimitz Parkway.

Over ten detailed technical reports will be prepared on such topics as transportation, land use, social and economic impacts, finance and cost-effectiveness, visual and aesthetic impacts, noise and vibration, park and recreation areas, historic resources, air quality, and hazardous materials. The results of the detailed analysis will be summarized in the Draft EIS.

1.2 An Overview of the Transportation Planning Process

Oahu Metropolitan Planning Organization (OMPO)

The Oahu Metropolitan Planning Organization Policy Committee is the "heart" of the Oahu Metropolitan Planning Organization planning process. It determines the direction of the Oahu Metropolitan Planning Organization effort, considers and approves transportation planning issues, and makes the final approval for Oahu Metropolitan Planning Organization matters. The Policy Committee is made up of 13 members. Five members are from the including the chair of the Council's transportation committee. Three members are State senators, including the chair of the Senate's transportation committee. Three members are State representatives, including the chair of the House's transportation committee. One member is the Director of the State Department of Transportation (DOT) and one member is the Director of the City Department of Transportation Services (DTS). Although not a member of the Policy Committee, the Citizen Advisory Committee Chair has been invited to attend and take part in discussions at Policy Committee meetings.

The Oahu Metropolitan Planning Organization Technical Advisory Committee (OMPO TAC) provides the technical input to OMPO's planning process. The Technical Advisory Committee acts as the technical liaison between the Policy Committee and the OMPO Executive Director, provides advice to the Policy Committee and the OMPO Executive Director on technical matters, and insures the technical competence of the planning process. The Technical Advisory Committee has direct responsibility for land use, transportation-related planning, and transit management. The Technical Advisory Committee members include four directors of the City and the State planning and transportation departments. In addition, representatives of the Federal Highway Administration and Federal Aviation Administration attend TAC meetings as non-voting members.

Oahu Metropolitan Planning Organization Citizen Advisory Committee (OMPO CAC):

the Citizen Advisory Committee assists in developing public involvement programs to solicit general public input for the Policy Committee. Comments received from the Citizen Advisory Committee members and non-members are treated equally. The Citizen Advisory Committee meets about once a month. These meetings are open to the public and provide an opportunity for interested parties to hear and discuss transportation issues with the appropriate project administrators or decision-makers. The Citizen Advisory Committee members are organizations and groups interested in transportation planning on Oahu, representative of a broad range of interests. Citizen Advisory Committee members are appointed by the Policy Committee.

The OMPO Overall Work Program (OWP) serves as the key management tool for monitoring State and City transportation activities on Oahu. It describes transportation-related planning studies to be conducted in a given year. The Overall Work Program defines project objectives and tasks and identifies budgetary and staff requirements needed to carry out the projects. In addressing current transportation issues and problems, the Overall Work Program responds to local planning requirements, federal transportation priorities, and Transportation Equity Act for the 21st Century requirements. The Overall Work Program also includes land use studies as they relate to transportation needs. A draft Overall Work Program is prepared each winter and submitted for review in March. After considerable review and revision by citizens and Federal and local agencies, a final Overall Work Program is adopted in late spring for the next fiscal year.

The Oahu Regional Transportation Plan (ORTP) is a blueprint for identifying the development of future transportation improvements on Oahu. It should be noted, however, that the inclusion of a project into this plan does not guarantee its construction. Rather, it allows a project to begin a series of more detailed evaluations and to be eligible for federal funding. During these more detailed evaluations, a project could be postponed or terminated for any number of reasons, such as environmental impact, cost, or lack of public support.

Under the new Transportation Equity Act for the 21st Century (TEA 21), an area's regional transportation plan must have a minimum twenty year horizon, be fiscally-constrained, and be updated at least every five years. In order to conform to this requirement, the Oahu Metropolitan Planning Organization endorsed a year 2020 regional transportation plan in November 1995. This plan was forwarded to the State Department of Transportation and incorporated, intact, into the Statewide Transportation Plan.

The Transportation Improvement Program (TIP) is a programming document that lists transportation projects that will be undertaken by the State and City and funded in part by federal money. Projects identified in the TIP must not be inconsistent with the Oahu Regional Transportation Plan (ORTP).

The Transportation Improvement Program is closely related to the State's and City/County's Capital Improvement Programs and is prepared every other year in the spring. The Transportation Improvement Program identifies funding amounts by source of funding, jurisdictional responsibility, type of project, and year of funding for these projects. Thus, the Transportation Improvement Program is an important reference document of transportation projects.

The Oahu Transportation Improvement Program is the short-term three-year implementation program for federally-assisted surface transportation projects that support the Oahu Regional Transportation Plan. The Transportation Improvement Program describes and prioritizes federally-assisted and major locally-funded transportation programs and projects selected by the Oahu Metropolitan Planning Organization Policy Committee for implementation during the program period. An annual review and a major biennial update of the Transportation Improvement Program are scheduled, with off-schedule amendments considered as needed. The Transportation Improvement Program is adopted by the Oahu Metropolitan Planning Organization Policy Committee and sent to the Governor for approval. Upon his approval, the Transportation Improvement Program is incorporated as the Oahu element of the Statewide Transportation Improvement Program (STIP). The Statewide Transportation Improvement Program is the official document the U.S. Department of Transportation uses to authorize federal

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funds for projects in Hawaii. * A Community-Based Transportation Visioning Process Managed by the City and County of Honolulu and the Hawaii Department of Transportation. Contact with questions or problems. Parsons Brinckerhoff 1998

Chapter 2 History

2.1 Jeremy Harris. State of the City Address. January 26, 1999

"Four months ago, as part of my vision we also laid out a conceptual plan for transportation improvements for the 21st century. That plan included improved bus service to Windward, Central, North Shore and Leeward to give better, quicker access to downtown Honolulu. It also included a light rail electric trolley system in the primary urban corridor from Pearl City to the University. It would provide mobility for our growing downtown population and it would be supplemented with parking lots just outside of town, circulator buses within the urban area, and water taxis across the waterfront. That was my vision ...

In the area of transportation a second alternative emerged. That alternative is a bus-rapid transit system that uses dedicated zipper lanes, circulator buses, and express buses in a network that could carry almost as many people as a more costly fixed rail system. Under this proposal, communities around the island from Waianae to Mililani would be served with circulator buses that would move around within their area - taking people to shops, schools and parks. These would connect, at several stops in each community, to bus-rapid transit stations.

Under the plan, the existing Zipper Lane would be reserved solely for bus-rapid transit and would be expanded to include an entry- and exit-way at Pearl City to connect with circulator buses in those surrounding communities.

The Zipper lane would be extended all the way to Nimitz Highway, and it would be made two-directional - carrying people into town in the morning, out of town at night. Using Zipper Lanes as exclusive bus rapid-transit lanes carrying new articulated buses at 90-second intervals, would give us almost the same carrying capacity as a rail system - without the high costs.

Express buses would travel to and from Oahu's communities, pick up their passengers, and travel into Honolulu on a dedicated lane - just as if they were moving on tracks. Our new articulated buses, which can carry more people in comfort, would then move onto Nimitz Highway, where the next segment of our transit plan takes shape.

We're proposing to re-route much of the traffic off Nimitz Highway onto a new Sand Island Parkway and a tunnel under Honolulu Harbor. It's an ambitious plan, but it meets several goals. It frees up the valuable Nimitz waterfront for economic redevelopment, allowing us to make Honolulu a true waterfront city. It also eliminates one of our City's worst traffic bottlenecks. Nimitz Highway can be made into a far more efficient way to get people into town. In our plan, two lanes of Nimitz will become dedicated bus-rapid transit lanes.

These dedicated lanes will carry passengers into town where they will be able to transfer to downtown circulator buses. Riders going to the Diamond Head side of town would go through the new tunnel to South Street or Waikiki. The next segment of this alternative would involve the development of a light rail system in the most heavily used corridor, from Kapolei to downtown. Under this plan a light rail electric trolley would run from the periphery of Waikiki along Ala Moana Boulevard, and connect Waikiki, the Convention Center, Ala Moana Shopping Center, Ward Warehouse, the State's Kakaako Makai redevelopment area, Aloha Tower and downtown with a clean and efficient transportation link. It would provide the impetus for the redevelopment of Kakaako and would increase business for merchants downtown.

This light rail electric trolley would link up with the bus-rapid transit system in the Aloha Tower area as well as with articulated buses that would be operating at short intervals providing convenient access to all areas of town. It's an exciting alternative.

I've given direction to the Department of Transportation Services to move forward with our transportation project to the next phase, the federally mandated environmental impact statement/alternative analysis. In that effort, we will evaluate the following three proposals and choose one for action:

1) A light rail electric trolley from Pearl City to UH with circulator buses in local communities.

2) A bus-rapid transit system from Waipahu to UH using dedicated zipper lanes, with a light rail electric trolley from Waikiki to downtown and local community connection through community circulator buses.

3) Expansion of our existing bus system.

As our Department and its consultants go through this federally mandated analysis, I will assemble a policy team of business, council, and vision team members to work with us throughout the evaluation process. Regardless of which technology we ultimately choose, I believe it's vital in our effort to protect our environment and our quality of life, that we position our City as the world leader in electric based transportation.

One new technology that would have applicability for either of the alternatives is the wireless plate system. With this new technology, light rail vehicles or electric trolley buses could be powered without the need for poles and overhead power lines. Instead, transit vehicles pick up their power from a plate imbedded in the roadway. To protect against electric shock the plate only turns "on" directly under the transit vehicle as it passes by. If such a system was determined to be feasible we might imagine a future time when even Honolulu's private vehicles were electric, picking up their power from the street itself."

2.2 City Blueprints for the Oahu Trans 2K (January - August 1998)

Harris to Unveil City Proposals, Seek Input for '21st Century Oahu' "At the urging of Mayor Jeremy Harris, city officials have spent the past nine months trying to envision and draft a blueprint for the kind of future Oahu could have." David Waite *Honolulu Advertiser*, September 25, 1998.

Mayor Unveils Land-Use Vision - Harris hopes to reduce urban sprawl by limiting growth in population and development to greater Honolulu and Kapolei "Harris first outlined his vision in his State of the City address in January. ... Harris' ideas also include a drive to revitalize the Honolulu waterfront as has been done in Portland, Boston and other major mainland cities." Gordon Y. K. Pang *Honolulu Star Bulletin*, September 24, 1998.

2.3 Oahu Trans 2K

"The Chair introduced Joe Magaldi, Deputy Director of the City's Department of Transportation Services. He gave a presentation on the City's Vision for Oahu. Part of this vision is a study that the City had just begun. They will hold ten community meetings on Oahu to gather input on the type of transportation system people want. These meetings will also include the State's community outreach presentation on their Freeway Management System (FMS). The City Vision for Oahu includes five key elements: ...

As part of this study, the consultant will identify transit lines to increase capacity, look at high speed express service to/from the suburbs; ways to implement a central city trolley; determine initial routes and routes for future expansion; and study opportunities for historic trolley lines. ...

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The City's Primary Corridor Transportation Plan (PCTP) will create a future transportation master plan that will support the Vision for Oahu. It involves community-base planning and will be implemented incrementally within our ability to pay. The study will look at areas such as Curitiba, Brazil and Portland Oregon as transit models." OMPO Community Advisory Committee ("OMPO CAC") Minutes September 16, 1998.

850 Meet to 'Vision' Oahu's Future - Concerns about the economy and the environment draw a big crowd: "Mayor Jeremy Harris this week announced the joint city-state effort to incorporate into one 'vision' all aspects of land use, reached through a community consensus. Further meetings will be held." Lori Tighe *Honolulu Star Bulletin*, September 26, 1998

Transportation Takes Input On Transit Plans: "Light-rail transit and other initiatives drew some 300 participants, and Mayor Jeremy Harris said intensive transportation planning will be a joint state and city undertaking between now and January, with many of the ideas coming from the community." Harold Morse *Honolulu Star Bulletin*, September 29, 1998

Editorial: Oahu's Future "The trolley idea is a scaled-down version of the elevated rail transit plan that was narrowly rejected by the City Council in 1992. Harris, as city managing director, was deeply involved in the planning for that project. A trolley might be less effective. The proposals also include diverting traffic from Nimitz Highway to tunnels under Sand Island and Honolulu harbor, building a highway through Waianae mauka of Farrington Highway and creating a bikeway on Ala Wai Boulevard by eliminating the parking lane. All of this would cost money, and it's hard to see where it would come from. Certainly the city doesn't have it. But this would be a plan to be fulfilled over decades. It's never too soon to seek a consensus. Finding the money will have to come later." *Honolulu Star Bulletin*, September 26, 1998

Editorial: New Transit Plans Must Include Public Options: "This time around, city officials say they are determined to go only where the community wants them to go and in a form the community finds acceptable. ... If all this holds, it will mark a refreshing change in transportation planning for Oahu. We have learned one lesson: Any project of this magnitude imposed top-down by government will fail its basic political test." *Honolulu Advertiser*, September 29, 1998

Emotions High as Fight Resumes on Rail Transit: "Residents have a lot to say for and against light rail as the city's second round of meetings, aimed at getting public input, kick off by Gordon Y.K. Pang *Honolulu Star-Bulletin*, November 17, 1998

Opinion Divided on Light Rail -Some residents say planning biased toward popular proposal: "The light-rail proposal prompted the most debate, with some community representatives saying the planning process was weighted toward including light rail. 'They don't even assume that there's a possibility there won't be light rail,' said Richard Port, an Ala Moana area resident who was state Democratic Party chairman from 1994 to 1996. 'It's already a rigged decision.'" Jean Christensen Advertiser Staff Writer *Honolulu Advertiser*, November 17, 1998

Transportation Issues Addressed at Workshop; Light Rail System Urged by Residents: "The first series of workshops ended Oct. 14 ... Among the ideas being proposed is the need for a mass transit system, most likely in the form of a light rail system." Don Robbins *Kanupepa*, October 27, 1998

Parsons Brinckerhoff: "The City and County of Honolulu's Department of Transportation Services (DTS), with the cooperation of the Hawaii Department of Transportation (DOT), is undertaking a major study to examine the future transportation system for Oahu. The study, officially called the Oahu Primary Corridor Transportation Project began in August 1998. It focuses on improving circulation within communities and between them. Moreover, the study

focuses on public transit improvements and more efficient use of existing roads, both to enhance established communities. The study does not focus on building new highways in undeveloped areas.

The project consists of three tracks: community-based planning, project development and delivery-early-start projects and project development-primary corridor. Community outreach will be the first step of a public involvement process that will continue throughout the project; the community-based planning track will identify transportation improvements throughout the island that will improve mobility and enhance the livability of Oahu's communities. Early-start projects will be those that do not require detailed planning or complicated environmental clearances. Primary corridor (from Pearl City to the University of Hawaii Manoa projects will be examined and evaluated through an MIS that will define the characteristics of transit services in the corridor. The transit component will probably be divided into three major subsystems: fixed-route buses that provide local services throughout the communities; high-speed express service from suburbs; and the central city trolley, which will remain at-grade as much as possible to reduce construction costs." A Community-Based Transportation Visioning Process Managed by the City and County of Honolulu and the Hawaii Department of Transportation. Parsons Brinckerhoff 1998

Parsons Brinckerhoff: "The Islandwide Mobility Concept Plan which has emerged from Rounds 1 and 2 of Oahu Trans 2K, including the various public transit alternatives that are under active consideration. The third round of Oahu Trans 2K meetings will be jointly held with another community-based planning project known as 21st Century Oahu. Since last fall, vision teams from the 21st Century Oahu process have been working to develop community goals and prioritize capital improvement projects. The project consists of three tracks: community-based planning, project development and delivery-early-start projects and project development-primary corridor." A Community-Based Transportation Visioning Process Managed by the City and County of Honolulu and the Hawaii Department of Transportation. Parsons Brinckerhoff. 1998

2.4 Phase Three: 21st Century Oahu & Oahu Trans 2K

Mayor Jeremy Harris: "Dear Community Leader: The next phase in our grassroots effort to envision, plan, design and build a sustainable future for Oahu is about to begin with a round of community vision team meetings focusing primarily on transportation. These meetings will complete the integration of two related community-based planning projects known as 21st Century Oahu and Oahu Trans 2K. ... If you previously attended Oahu Trans 2K meetings, you will recognize this as Round 3 of that program. If you have previously participated in the 21st Century Oahu process, you understand how important transportation planning is to implementing your community vision. Please attend any sessions in which you are interested. The meetings will cover: The Islandwide Mobility Concept Plan that has emerged from Rounds 1 and 2 of Oahu Trans 2K, including the various public transit alternatives that are under active consideration; A report back and further refinement of community-specific mobility proposals that emerged from Rounds 1 and 2 of Oahu Trans 2K, which may include traffic calming measures, bikeways, bus stop improvements and neighborhood circulators; Discussion of pending city and state transportation projects; An update on vision team capital improvement requests included in the Mayor's FY 1999-2000 city budget; A look ahead to future planning efforts by the community vision teams. ... Yours truly, Jeremy Harris, Mayor"

Chapter 3 Scoping

3.1 The National Environmental Policy Act (NEPA)

Council on Environmental Quality: Top 40 Questions Asked about NEPA.
http://ceq.eh.doe.gov/nepa/regs/40/40p3.htm

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1a. Range of Alternatives. What is meant by "range of alternatives" as referred to in Sec. 1505.1(e)?

The phrase "range of alternatives" refers to the alternatives discussed in environmental documents. It includes all reasonable alternatives, which must be rigorously explored and objectively evaluated, as well as those other alternatives, which are eliminated from detailed study with a brief discussion of the reasons for eliminating them. Section 1502.14. A decisionmaker must not consider alternatives beyond the range of alternatives discussed in the relevant environmental documents. Moreover, a decisionmaker must, in fact, consider all the alternatives discussed in an EIS. Section 1505.1(e).

1b. How many alternatives have to be discussed when there is an infinite number of possible alternatives?

A. For some proposals there may exist a very large or even an infinite number of possible reasonable alternatives. For example, a proposal to designate wilderness areas within a National Forest could be said to involve an infinite number of alternatives from 0 to 100 percent of the forest. When there are potentially a very large number of alternatives, only a reasonable number of examples, covering the full spectrum of alternatives, must be analyzed and compared in the EIS. An appropriate series of alternatives might include dedicating 0, 10, 30, 50, 70, 90, or 100 percent of the Forest to wilderness. What constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case.

2a. Alternatives Outside the Capability of Applicant or Jurisdiction of Agency. If an EIS is prepared in connection with an application for a permit or other federal approval, must the EIS rigorously analyze and discuss alternatives that are outside the capability of the applicant or can it be limited to reasonable alternatives that can be carried out by the applicant?

A. Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.

2b. Must the EIS analyze alternatives outside the jurisdiction or capability of the agency or beyond what Congress has authorized?

A. An alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. A potential conflict with local or federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered. Section 1506.2(d). Alternatives that are outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable, because the EIS may serve as the basis for modifying the Congressional approval or funding in light of NEPA's goals and policies. Section 1500.1(a).

3. No-Action Alternative. What does the "no action" alternative include? If an agency is under a court order or legislative command to act, must the EIS address the "no action" alternative?

A. Section 1502.14(d) requires the alternatives analysis in the EIS to "include the alternative of no action." There are two distinct interpretations of "no action" that must be considered, depending on the nature of the proposal being evaluated. The first situation might involve an action such as updating a land management plan where ongoing programs initiated under existing legislation and regulations will continue, even as new plans are developed. In these cases "no action" is "no change" from current management direction or level of management intensity. To construct

an alternative that is based on no management at all would be a useless academic exercise. Therefore, the "no action" alternative may be thought of in terms of continuing with the present course of action until that action is changed. Consequently, projected impacts of alternative management schemes would be compared in the EIS to those impacts projected for the existing plan. In this case, alternatives would include management plans of both greater and lesser intensity, especially greater and lesser levels of resource development.

The second interpretation of "no action" is illustrated in instances involving federal decisions on proposals for projects. "No action" in such cases would mean the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.

Where a choice of "no action" by the agency would result in predictable actions by others, this consequence of the "no action" alternative should be included in the analysis. For example, if denial of permission to build a railroad to a facility would lead to construction of a road and increased truck traffic, the EIS should analyze this consequence of the "no action" alternative.

In light of the above, it is difficult to think of a situation where it would not be appropriate to address a "no action" alternative. Accordingly, the regulations require the analysis of the no action alternative even if the agency is under a court order or legislative command to act. This analysis provides a benchmark, enabling decisionmakers to compare the magnitude of environmental effects of the action alternatives. It is also an example of a reasonable alternative outside the jurisdiction of the agency which must be analyzed. Section 1502.14(c). See Question 2 above. Inclusion of such an analysis in the EIS is necessary to inform the Congress, the public, and the President as intended by NEPA. Section 1500.1(a).

4a. Agency's Preferred Alternative. What is the "agency's preferred alternative"?

A. The "agency's preferred alternative" is the alternative which the agency believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors. The concept of the "agency's preferred alternative" is different from the "environmentally preferable alternative," although in some cases one alternative may be both. See Question 6 below. It is identified so that agencies and the public can understand the lead agency's orientation.

4b. Does the "preferred alternative" have to be identified in the Draft EIS and the Final EIS or just in the Final EIS?

A. Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." This means that if the agency has a preferred alternative at the Draft EIS stage, that alternative must be labeled or identified as such in the Draft EIS. If the responsible federal official in fact has no preferred alternative at the Draft EIS stage, a preferred alternative need not be identified there. By the time the Final EIS is filed, Section 1502.14(e) presumes the existence of a preferred alternative and requires its identification in the Final EIS "unless another law prohibits the expression of such a preference."

4c. Who recommends or determines the "preferred alternative?"

A. The lead agency's official with line responsibility for preparing the EIS and assuring its adequacy is responsible for identifying the agency's preferred alternative(s). The NEPA regulations do not dictate which official in an agency shall be responsible for preparation of EISs, but agencies can identify this official in their implementing procedures, pursuant to Section 1507.3.

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Even though the agency's preferred alternative is identified by the EIS preparer in the EIS, the statement must be objectively prepared and not slanted to support the choice of the agency's preferred alternative over the other reasonable and feasible alternatives.

5a. Proposed Action v. Preferred Alternative. Is the "proposed action" the same thing as the "preferred alternative"?

A. The "proposed action" may be, but is not necessarily, the agency's "preferred alternative." The proposed action may be a proposal in its initial form before undergoing analysis in the EIS process. If the proposed action is [46 FR 18028] internally generated, such as preparing a land management plan, the proposed action might end up as the agency's preferred alternative. On the other hand the proposed action may be granting an application to a non-federal entity for a permit. The agency may or may not have a "preferred alternative" at the Draft EIS stage (see Question 4 above). In that case the agency may decide at the Final EIS stage, on the basis of the Draft EIS and the public and agency comments, that an alternative other than the proposed action is the agency's "preferred alternative."

5b. Is the analysis of the "proposed action" in an EIS to be treated differently from the analysis of alternatives?

A. The degree of analysis devoted to each alternative in the EIS is to be substantially similar to that devoted to the "proposed action." Section 1502.14 is titled "Alternatives including the proposed action" to reflect such comparable treatment. Section 1502.14(b) specifically requires "substantial treatment" in the EIS of each alternative including the proposed action. This regulation does not dictate an amount of information to be provided, but rather, prescribes a level of treatment, which may in turn require varying amounts of information, to enable a reviewer to evaluate and compare alternatives.

6a. Environmentally Preferable Alternative. What is the meaning of the term "environmentally preferable alternative" as used in the regulations with reference to Records of Decision? How is the term "environment" used in the phrase?

A. Section 1505.2(b) requires that, in cases where an EIS has been prepared, the Record of Decision (ROD) must identify all alternatives that were considered, "... specifying the alternative or alternatives which were considered to be environmentally preferable." The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.

The Council recognizes that the identification of the environmentally preferable alternative may involve difficult judgments, particularly when one environmental value must be balanced against another. The public and other agencies reviewing a Draft EIS can assist the lead agency to develop and determine environmentally preferable alternatives by providing their views in comments on the Draft EIS. Through the identification of the environmentally preferable alternative, the decisionmaker is clearly faced with a choice between that alternative and others, and must consider whether the decision accords with the Congressionally declared policies of the Act.

6b. Who recommends or determines what is environmentally preferable?

A. The agency EIS staff is encouraged to make recommendations of the environmentally preferable alternative(s) during EIS preparation. In any event the lead agency official responsible for the EIS is encouraged to identify the environmentally preferable alternative(s) in the EIS. In all cases, commentors from other agencies and the public are

also encouraged to address this question. The agency must identify the environmentally preferable alternative in the ROD.

7. Difference Between Sections of EIS on Alternatives and Environmental Consequences. What is the difference between the sections in the EIS on "alternatives" and "environmental consequences"? How do you avoid duplicating the discussion of alternatives in preparing these two sections?

A. The "alternatives" section is the heart of the EIS. This section rigorously explores and objectively evaluates all reasonable alternatives including the proposed action. Section 1502.14. It should include relevant comparisons on environmental and other grounds. The "environmental consequences" section of the EIS discusses the specific environmental impacts or effects of each of the alternatives including the proposed action. Section 1502.16. In order to avoid duplication between these two sections, most of the "alternatives" section should be devoted to describing and comparing the alternatives. Discussion of the environmental impacts of these alternatives should be limited to a concise descriptive summary of such impacts in a comparative form, including charts or tables, thus sharply defining the issues and providing a clear basis for choice among options. Section 1502.14. The "environmental consequences" section should be devoted largely to a scientific analysis of the direct and indirect environmental effects of the proposed action and of each of the alternatives. It forms the analytic basis for the concise comparison in the "alternatives" section.

8. Early Application of NEPA. Section 1501.2(d) of the NEPA regulations requires agencies to provide for the early application of NEPA to cases where actions are planned by private applicants or non-Federal entities and are, at some stage, subject to federal approval of permits, loans, loan guarantees, insurance or other actions. What must and can agencies do to apply NEPA early in these cases?

A. Section 1501.2(d) requires federal agencies to take steps toward ensuring that private parties and state and local entities initiate environmental studies as soon as federal involvement in their proposals can be foreseen. This section is intended to ensure that environmental factors are considered at an early stage in the planning process and to avoid the situation where the applicant for a federal permit or approval has completed planning and eliminated all alternatives to the proposed action by the time the EIS process commences or before the EIS process has been completed.

Through early consultation, business applicants and approving agencies may gain better appreciation of each other's needs and foster a decisionmaking process which avoids later unexpected confrontations.

Federal agencies are required by Section 1507.3(b) to develop procedures to carry out Section 1501.2(d). The procedures should include an "outreach program", such as a means for prospective applicants to conduct pre-application consultations with the lead and cooperating agencies. Applicants need to find out, in advance of project planning, what environmental studies or other information will be required, and what mitigation requirements are likely, in connection with the later federal NEPA process. Agencies should designate staff to advise potential applicants of the agency's NEPA information requirements and should publicize their pre-application procedures and information requirements in newsletters or other media used by potential applicants.

Complementing Section 1501.2(d), Section 1506.5(a) requires agencies to assist applicants by outlining the types of information required in those cases where the agency requires the applicant to submit environmental data for possible use by the agency in preparing an EIS.

Section 1506.5(b) allows agencies to authorize preparation of environmental assessments by applicants. Thus, the procedures should also include a means for anticipating and utilizing applicants' environmental studies or "early

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corporate environmental assessments" to fulfill some of the federal agency's NEPA obligations. However, in such cases the agency must still evaluate independently the environmental issues [46 FR 18029] and take responsibility for the environmental assessment.

These provisions are intended to encourage and enable private and other non-federal entities to build environmental considerations into their own planning processes in a way that facilitates the application of NEPA and avoids delay.

9. Applicant Who Needs Other Permits. To what extent must an agency inquire into whether an applicant for a federal permit, funding or other approval of a proposal will also need approval from another agency for the same proposal or some other related aspect of it?

A. Agencies must integrate the NEPA process into other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts. Specifically, the agency must "provide for cases where actions are planned by . . . applicants," so that designated staff are available to advise potential applicants of studies or other information that will forseeable be required for the later federal action; the agency shall consult with the applicant if the agency foresees its own involvement in the proposal; and it shall insure that the NEPA process commences at the earliest possible time. Section 1501.2(d). (See Question 8.)

The regulations emphasize agency cooperation early in the NEPA process. Section 1501.6. Section 1501.7 on "scoping" also provides that all affected Federal agencies are to be invited to participate in scoping the environmental issues and to identify the various environmental review and consultation requirements that may apply to the proposed action. Further, Section 1502.25(b) requires that the draft EIS list all the federal permits, licenses and other entitlements that are needed to implement the proposal.

These provisions create an affirmative obligation on federal agencies to inquire early, and to the maximum degree possible, to ascertain whether an applicant is or will be seeking other federal assistance or approval, or whether the applicant is waiting until a proposal has been substantially developed before requesting federal aid or approval.

Thus, a federal agency receiving a request for approval or assistance should determine whether the applicant has filed separate requests for federal approval or assistance with other federal agencies. Other federal agencies that are likely to become involved should then be contacted, and the NEPA process coordinated, to insure an early and comprehensive analysis of the direct and indirect effects of the proposal and any related actions. The agency should inform the applicant that action on its application may be delayed unless it submits all other federal applications (where feasible to do so), so that all the relevant agencies can work together on the scoping process and preparation of the EIS.

10a. Limitations on Action During 30-Day Review Period for Final EIS. What actions by agencies and/or applicants are allowed during EIS preparation and during the 30-day review period after publication of a final EIS?

A. No federal decision on the proposed action shall be made or recorded until at least 30 days after the publication by EPA of notice that the particular EIS has been filed with EPA. Sections 1505.2 and 1506.10. Section 1505.2 requires this decision to be stated in a public Record of Decision.

Until the agency issues its Record of Decision, no action by an agency or an applicant concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives. Section 1506.1(a). But this does not preclude preliminary planning or design work which is needed to support an application for permits or assistance. Section 1506.1(d).

When the impact statement in question is a program EIS, no major action concerning the program may be taken which may significantly affect the quality of the human environment, unless the particular action is justified independently of the program, is accompanied by its own adequate environmental impact statement and will not prejudice the ultimate decision on the program. Section 1506.1(c).

10b. Do these limitations on action (described in Question 10a) apply to state or local agencies that have statutorily delegated responsibility for preparation of environmental documents required by NEPA, for example, under the HUD Block Grant program?

A. Yes, these limitations do apply, without any variation from their application to federal agencies.

11. Limitations on Actions by an Applicant During EIS Process. What actions must a lead agency take during the NEPA process when it becomes aware that a non-federal applicant is about to take an action within the agency's jurisdiction that would either have an adverse environmental impact or limit the choice of reasonable alternatives (e.g., prematurely commit money or other resources towards the completion of the proposal)?

A. The federal agency must notify the applicant that the agency will take strong affirmative steps to insure that the objectives and procedures of NEPA are fulfilled: Section 1506.1(b). These steps could include seeking injunctive measures under NEPA, or the use of sanctions available under either the agency's permitting authority or statutes setting forth the agency's statutory mission. For example, the agency might advise an applicant that if it takes such action the agency will not process its application.

13. Use of Scoping Before Notice of Intent to Prepare EIS. Can the scoping process be used in connection with preparation of an environmental assessment, i.e., before both the decision to proceed with an EIS and publication of a notice of intent?

A. Yes. Scoping can be a useful tool for discovering alternatives to a proposal, or significant impacts that may have been overlooked. In cases where an environmental assessment is being prepared to help an agency decide whether to prepare an EIS, useful information might result from early participation by other agencies and the public in a scoping process.

The regulations state that the scoping process is to be preceded by a Notice of Intent (NOI) to prepare an EIS. But that is only the minimum requirement. Scoping may be initiated earlier, as long as there is appropriate public notice and enough information available on the proposal so that the public and relevant agencies can participate effectively.

However, scoping that is done before the assessment, and in aid of its preparation, cannot substitute for the normal scoping process after publication of the NOI, unless the earlier public notice stated clearly that this possibility was under consideration, and the NOI expressly provides that written comments on the scope of alternatives and impacts will still be considered.

14a. Rights and Responsibilities of Lead and Cooperating Agencies. What are the respective rights and responsibilities of lead and cooperating agencies? What letters and memoranda must be prepared?

A. After a lead agency has been designated (Sec. 1501.5), that agency has the responsibility to solicit cooperation from other federal agencies that have jurisdiction by law or special expertise on any environmental issue that should be addressed in the EIS being prepared. Where appropriate, the lead agency should seek the cooperation of state or local agencies of similar qualifications. When the proposal may affect an Indian reservation, the agency should consult with the Indian tribe. Section 1508.5. The request for cooperation should come at the earliest possible time in the NEPA process.

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After discussions with the candidate cooperating agencies, the lead agency and the cooperating agencies are to determine by letter or by memorandum which agencies will undertake cooperating responsibilities. To the extent possible at this stage, responsibilities for specific issues should be assigned. The allocation of responsibilities will be completed during scoping. Section 1501.7(a)(4).

Cooperating agencies must assume responsibility for the development of information and the preparation of environmental analyses at the request of the lead agency. Section 1501.6(b)(3). Cooperating agencies are now required by Section 1501.6 to devote staff resources that were normally primarily used to critique or comment on the Draft EIS after its preparation, much earlier in the NEPA process -- primarily at the scoping and Draft EIS preparation stages. If a cooperating agency determines that its resource limitations preclude any involvement, or the degree of involvement (amount of work) requested by the lead agency, it must so inform the lead agency in writing and submit a copy of this correspondence to the Council. Section 1501.6(c).

In other words, the potential cooperating agency must decide early if it is able to devote any of its resources to a particular proposal. For this reason the regulation states that an agency may reply to a request for cooperation that "other program commitments preclude any involvement or the degree of involvement requested in the action that is the subject of the environmental impact statement." (Emphasis added). The regulation refers to the "action," rather than to the EIS, to clarify that the agency is taking itself out of all phases of the federal action, not just draft EIS preparation. This means that the agency has determined that it cannot be involved in the later stages of EIS review and comment, as well as decisionmaking on the proposed action. For this reason, cooperating agencies with jurisdiction by law (those which have permitting or other approval authority) cannot opt out entirely of the duty to cooperate on the EIS. See also Question 15, relating specifically to the responsibility of EPA.

14b. How are disputes resolved between lead and cooperating agencies concerning the scope and level of detail of analysis and the quality of data in impact statements?

A. Such disputes are resolved by the agencies themselves. A lead agency, of course, has the ultimate responsibility for the content of an EIS. But it is supposed to use the environmental analysis and recommendations of cooperating agencies with jurisdiction by law or special expertise to the maximum extent possible, consistent with its own responsibilities as lead agency. Section 1501.6(a)(2).

If the lead agency leaves out a significant issue or ignores the advice and expertise of the cooperating agency, the EIS may be found later to be inadequate. Similarly, where cooperating agencies have their own decisions to make and they intend to adopt the environmental impact statement and base their decisions on it, one document should include all of the information necessary for the decisions by the cooperating agencies. Otherwise they may be forced to duplicate the EIS process by issuing a new, more complete EIS or Supplemental EIS, even though the original EIS could have sufficed if it had been properly done at the outset. Thus, both lead and cooperating agencies have a stake in producing a document of good quality. Cooperating agencies also have a duty to participate fully in the scoping process to ensure that the appropriate range of issues is determined early in the EIS process.

Because the EIS is not the Record of Decision, but instead constitutes the information and analysis on which to base a decision, disagreements about conclusions to be drawn from the EIS need not inhibit agencies from issuing a joint document, or adopting another agency's EIS, if the analysis is adequate. Thus, if each agency has its own "preferred alternative," both can be identified in the EIS. Similarly, a cooperating agency with jurisdiction by law may determine in its own ROD that alternative A is the environmentally preferable action, even though the lead agency has decided in its separate ROD that Alternative B is environmentally preferable.

14c. What are the specific responsibilities of federal and state cooperating agencies to review draft EISs?

A. Cooperating agencies (i.e., agencies with jurisdiction by law or special expertise) and agencies that are authorized to develop or enforce environmental standards, must comment on environmental impact statements within their jurisdiction, expertise or authority. Sections 1503.2, 1508.5. If a cooperating agency is satisfied that its views are adequately reflected in the environmental impact statement, it should simply comment accordingly. Conversely, if the cooperating agency determines that a draft EIS is incomplete, inadequate or inaccurate, or it has other comments, it should promptly make such comments, conforming to the requirements of specificity in section 1503.3.

14d. How is the lead agency to treat the comments of another agency with jurisdiction by law or special expertise which has failed or refused to cooperate or participate in scoping or EIS preparation?

A. A lead agency has the responsibility to respond to all substantive comments raising significant issues regarding a draft EIS. Section 1503.4. However, cooperating agencies are generally under an obligation to raise issues or otherwise participate in the EIS process during scoping and EIS preparation if they reasonably can do so. In practical terms, if a cooperating agency fails to cooperate at the outset, such as during scoping, it will find that its comments at a later stage will not be as persuasive to the lead agency.

15. Commenting Responsibilities of EPA. Are EPA's responsibilities to review and comment on the environmental effects of agency proposals under Section 309 of the Clean Air Act independent of its responsibility as a cooperating agency?

A. Yes. EPA has an obligation under Section 309 of the Clean Air Act to review and comment in writing on the environmental impact of any matter relating to the authority of the Administrator contained in proposed legislation, federal construction projects, other federal actions requiring EISs, and new regulations. 42 U.S.C. Sec. 7609. This obligation is independent of its role as a cooperating agency under the NEPA regulations.

16. Third Party Contracts. What is meant by the term "third party contracts" in connection with the preparation of an EIS? See Section 1506.5(c). When can "third party contracts" be used?

A. As used by EPA and other agencies, the term "third party contract" refers to the preparation of EISs by contractors paid by the applicant. In the case of an EIS for a National Pollution Discharge Elimination System (NPDES) permit, the applicant, aware in the early planning stages of the proposed project of the need for an EIS, contracts directly with a consulting firm for its preparation. See 40 C.F.R. 6.604(g). The "third party" is EPA which, under Section 1506.5(c), must select the consulting firm, even though the applicant pays for the cost of preparing the EIS. The consulting firm is responsible to EPA for preparing an EIS that meets the requirements of the NEPA regulations and EPA's NEPA procedures. It is in the applicant's interest that the EIS comply with the law so that EPA can take prompt action on the NPDES permit application. The "third party contract" method under EPA's NEPA procedures is purely voluntary, though most applicants have found it helpful in expediting compliance with NEPA.

If a federal agency uses "third party contracting," the applicant may undertake the necessary paperwork for the solicitation of a field of candidates under the agency's direction, so long as the agency complies with Section 1506.5(c). Federal procurement requirements do not apply to the agency because it incurs no obligations or costs under the contract, nor does the agency procure anything under the contract.

17a. Disclosure Statement to Avoid Conflict of Interest. If an EIS is prepared with the assistance of a consulting firm, the firm must execute a disclosure statement. What criteria must the firm follow in determining whether it has any "financial or other interest in the outcome of the project" which would cause a conflict of interest?

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A. Section 1506.5(c), which specifies that a consulting firm preparing an EIS must execute a disclosure statement, does not define "financial or other interest in the outcome of the project." The Council interprets this term broadly to cover any known benefits other than general enhancement of professional reputation. This includes any financial benefit such as a promise of future construction or design work on the project, as well as indirect benefits the consultant is aware of (e.g., if the project would aid proposals sponsored by the firm's other clients). For example, completion of a highway project may encourage construction of a shopping center or industrial park from which the consultant stands to benefit. If a consulting firm is aware that it has such an interest in the decision on the proposal, it should be disqualified from preparing the EIS, to preserve the objectivity and integrity of the NEPA process.

When a consulting firm has been involved in developing initial data and plans for the project, but does not have any financial or other interest in the outcome of the decision, it need not be disqualified from preparing the EIS. However, a disclosure statement in the draft EIS should clearly state the scope and extent of the firm's prior involvement to expose any potential conflicts of interest that may exist.

17b. If the firm in fact has no promise of future work or other interest in the outcome of the proposal, may the firm later bid in competition with others for future work on the project if the proposed action is approved?

A. Yes.

18. Uncertainties About Indirect Effects of A Proposal. How should uncertainties about indirect effects of a proposal be addressed, for example, in cases of disposal of federal lands, when the identity or plans of future landowners is unknown?

A. The EIS must identify all the indirect effects that are known, and make a good faith effort to explain the effects that are not known but are "reasonably foreseeable." Section 1508.8(b). In the example, if there is total uncertainty about the identity of future land owners or the nature of future land uses, then of course, the agency is not required to engage in speculation or contemplation about their future plans. But, in the ordinary course of business, people do make judgments based upon reasonably foreseeable occurrences. It will often be possible to consider the likely purchasers and the development trends in that area or similar areas in recent years; or the likelihood that the land will be used for an energy project, shopping center, subdivision, farm or factory. The agency has the responsibility to make an informed judgment, and to estimate future impacts on that basis, especially if trends are ascertainable or potential purchasers have made themselves known. The agency cannot ignore these uncertain, but probable, effects of its decisions.

19a. Miligation Measures. What is the scope of mitigation measures that must be discussed?

A. The mitigation measures discussed in an EIS must cover the range of impacts of the proposal. The measures must include such things as design alternatives that would decrease pollution emissions, construction impacts, esthetic intrusion, as well as relocation assistance, possible land use controls that could be enacted, and other possible efforts. Mitigation measures must be considered even for impacts that by themselves would not be considered "significant." Once the proposal itself is considered as a whole to have significant effects, all of its specific effects on the environment (whether or not "significant") must be considered, and mitigation measures must be developed where it is feasible to do so. Sections 1502.14(f), 1502.16(h), 1508.14.

19b. How should an EIS treat the subject of available mitigation measures that are (1) outside the jurisdiction of the lead or cooperating agencies, or (2) unlikely to be adopted or enforced by the responsible agency?

A. All relevant, reasonable mitigation measures that could improve the project are to be identified, even if they are outside the jurisdiction of the lead agency or the cooperating agencies, and thus would not be committed as part of the RODs of these agencies. Sections 1502.16(h), 1505.2(e). This will serve to [46 FR 18032] alert agencies or officials who can implement these extra measures, and will encourage them to do so. Because the EIS is the most comprehensive environmental document, it is an ideal vehicle in which to lay out not only the full range of environmental impacts but also the full spectrum of appropriate mitigation.

However, to ensure that environmental effects of a proposed action are fairly assessed, the probability of the mitigation measures being implemented must also be discussed. Thus the EIS and the Record of Decision should indicate the likelihood that such measures will be adopted or enforced by the responsible agencies. Sections 1502.16(h), 1505.2. If there is a history of nonenforcement or opposition to such measures, the EIS and Record of Decision should acknowledge such opposition or nonenforcement. If the necessary mitigation measures will not be ready for a long period of time, this fact, of course, should also be recognized.

21. Combining Environmental and Planning Documents. Where an EIS or an EA is combined with another project planning document (sometimes called "piggybacking"), to what degree may the EIS or EA refer to and rely upon information in the project document to satisfy NEPA's requirements?

A. Section 1502.25 of the regulations requires that draft EISs be prepared concurrently and integrated with environmental analyses and related surveys and studies required by other federal statutes. In addition, Section 1506.4 allows any environmental document prepared in compliance with NEPA to be combined with any other agency document to reduce duplication and paperwork. However, these provisions were not intended to authorize the preparation of a short summary or outline EIS, attached to a detailed project report or land use plan containing the required environmental impact data. In such circumstances, the reader would have to refer constantly to the detailed report to understand the environmental impacts and alternatives which should have been found in the EIS itself.

The EIS must stand on its own as an analytical document which fully informs decisionmakers and the public of the environmental effects of the proposal and those of the reasonable alternatives. Section 1502.1. But, as long as the EIS is clearly identified and is self-supporting, it can be physically included in or attached to the project report or land use plan, and may use attached report material as technical backup.

Forest Service environmental impact statements for forest management plans are handled in this manner. The EIS identifies the agency's preferred alternative, which is developed in detail as the proposed management plan. The detailed proposed plan accompanies the EIS through the review process, and the documents are appropriately cross-referenced. The proposed plan is useful for EIS readers as an example, to show how one choice of management options translates into effects on natural resources. This procedure permits initiation of the 90-day public review of proposed forest plans, which is required by the National Forest Management Act.

All the alternatives are discussed in the EIS, which can be read as an independent document. The details of the management plan are not repeated in the EIS, and vice versa. This is a reasonable functional separation of the documents: the EIS contains information relevant to the choice among alternatives; the plan is a detailed description of proposed management activities suitable for use by the land managers. This procedure provides for concurrent compliance with the public review requirements of both NEPA and the National Forest Management Act.

Under some circumstances, a project report or management plan may be totally merged with the EIS, and the one document labeled as both "EIS" and "management plan" or "project report." This may be reasonable where the documents are short, or where the EIS format and the regulations for clear, analytical EISs also satisfy the requirements for a project report.

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22. State and Federal Agencies as Joint Lead Agencies. May state and federal agencies serve as joint lead agencies? If so, how do they resolve law, policy and resource conflicts under NEPA and the relevant state environmental policy act? How do they resolve differences in perspective where, for example, national and local needs may differ?

A. Under Section 1501.5(b), federal, state or local agencies, as long as they include at least one federal agency, may act as joint lead agencies to prepare an EIS. Section 1506.2 also strongly urges state and local agencies and the relevant federal agencies to cooperate fully with each other. This should cover joint research and studies, planning activities, public hearings, environmental assessments and the preparation of joint EISs under NEPA and the relevant "little NEPA" state laws, so that one document will satisfy both laws.

The regulations also recognize that certain inconsistencies may exist between the proposed federal action and any approved state or local plan or law. The joint document should discuss the extent to which the federal agency would reconcile its proposed action with such plan or law. Section 1506.2(d). (See Question 23).

Because there may be differences in perspective as well as conflicts among [46 FR 18033] federal, state and local goals for resources management, the Council has advised participating agencies to adopt a flexible, cooperative approach. The joint EIS should reflect all of their interests and missions, clearly identified as such. The final document would then indicate how state and local interests have been accommodated, or would identify conflicts in goals (e.g., how a hydroelectric project, which might induce second home development, would require new land use controls). The EIS must contain a complete discussion of scope and purpose of the proposal, alternatives, and impacts so that the discussion is adequate to meet the needs of local, state and federal decisionmakers.

23a. Conflicts of Federal Proposal With Land Use Plans, Policies or Controls. How should an agency handle potential conflicts between a proposal and the objectives of Federal, state or local land use plans, policies and controls for the area concerned? See Sec. 1502.16(c).

A. The agency should first inquire of other agencies whether there are any potential conflicts. If there would be immediate conflicts, or if conflicts could arise in the future when the plans are finished (see Question 23(b) below), the EIS must acknowledge and describe the extent of those conflicts. If there are any possibilities of resolving the conflicts, these should be explained as well. The EIS should also evaluate the seriousness of the impact of the proposal on the land use plans and policies, and whether, or how much, the proposal will impair the effectiveness of land use control mechanisms for the area. Comments from officials of the affected area should be solicited early and should be carefully acknowledged and answered in the EIS.

23b. What constitutes a "land use plan or policy" for purposes of this discussion?

A. The term "land use plans," includes all types of formally adopted documents for land use planning, zoning and related regulatory requirements. Local general plans are included, even though they are subject to future change. Proposed plans should also be addressed if they have been formally proposed by the appropriate government body in a written form, and are being actively pursued by officials of the jurisdiction. Staged plans, which must go through phases of development such as the Water Resources Council's Level A, B and C planning process should also be included even though they are incomplete.

The term "policies" includes formally adopted statements of land use policy as embodied in laws or regulations. It also includes proposals for action such as the initiation of a planning process, or a formally adopted policy statement of the local, regional or state executive branch, even if it has not yet been formally adopted by the local, regional or state legislative body.

23c. What options are available for the decisionmaker when conflicts with such plans or policies are identified?

A. After identifying any potential land use conflicts, the decisionmaker must weigh the significance of the conflicts, among all the other environmental and non-environmental factors that must be considered in reaching a rational and balanced decision. Unless precluded by other law from causing or contributing to any inconsistency with the land use plans, policies or controls, the decisionmaker retains the authority to go forward with the proposal, despite the potential conflict. In the Record of Decision, the decisionmaker must explain what the decision was, how it was made, and what mitigation measures are being imposed to lessen adverse environmental impacts of the proposal, among the other requirements of Section 1505.2. This provision would require the decisionmaker to explain any decision to override land use plans, policies or controls for the area.

24a. Environmental Impact Statements on Policies, Plans or Programs. When are EISs required on policies, plans or programs?

A. An EIS must be prepared if an agency proposes to implement a specific policy, to adopt a plan for a group of related actions, or to implement a specific statutory program or executive directive. Section 1508.18. In addition, the adoption of official policy in the form of rules, regulations and interpretations pursuant to the Administrative Procedure Act, treaties, conventions, or other formal documents establishing governmental or agency policy which will substantially alter agency programs, could require an EIS. Section 1508.18. In all cases, the policy, plan, or program must have the potential for significantly affecting the quality of the human environment in order to require an EIS. It should be noted that a proposal "may exist in fact as well as by agency declaration that one exists." Section 1508.23.

24b. When is an area-wide or overview EIS appropriate?

A. The preparation of an area-wide or overview EIS may be particularly useful when similar actions, viewed with other reasonably foreseeable or proposed agency actions, share common timing or geography. For example, when a variety of energy projects may be located in a single watershed, or when a series of new energy technologies may be developed through federal funding, the overview or area-wide EIS would serve as a valuable and necessary analysis of the affected environment and the potential cumulative impacts of the reasonably foreseeable actions under that program or within that geographical area.

24c. What is the function of tiering in such cases?

A. Tiering is a procedure which allows an agency to avoid duplication of paperwork through the incorporation by reference of the general discussions and relevant specific discussions from an environmental impact statement of broader scope into one of lesser scope or vice versa. In the example given in Question 24b, this would mean that an overview EIS would be prepared for all of the energy activities reasonably foreseeable in a particular geographic area or resulting from a particular development program. This impact statement would be followed by site-specific or project-specific EISs. The tiering process would make each EIS of greater use and meaning to the public as the plan or program develops, without duplication of the analysis prepared for the previous impact statement.

25a. Appendices and Incorporation by Reference. When is it appropriate to use appendices instead of including information in the body of an EIS?

A. The body of the EIS should be a succinct statement of all the information on environmental impacts and alternatives that the decisionmaker and the public need, in order to make the decision and to ascertain that every

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significant factor has been examined. The EIS must explain or summarize methodologies of research and modeling, and the results of research that may have been conducted to analyze impacts and alternatives.

Lengthy technical discussions of modeling methodology, baseline studies, or other work are best reserved for the appendix. In other words, if only technically trained individuals are likely to understand a particular discussion then it should go in the appendix, and a plain language summary of the analysis and conclusions of that technical discussion should go in the text of the EIS.

The final statement must also contain the agency's responses to comments on the draft EIS. These responses will be primarily in the form of changes in the document itself, but specific answers to each significant comment should also be included. These specific responses may be placed in an appendix. If the comments are especially voluminous, summaries of the comments and responses will suffice. (See Question 29 regarding the level of detail required for responses to comments.)

25b. How does an appendix differ from incorporation by reference?

A. First, if at all possible, the appendix accompanies the EIS, whereas the material which is incorporated by reference does not accompany the EIS. Thus the appendix should contain information that reviewers will be likely to want to examine. The appendix should include material that pertains to preparation of a particular EIS. Research papers directly relevant to the proposal, lists of affected species, discussion of the methodology of models used in the analysis of impacts, extremely detailed responses to comments, or other information, would be placed in the appendix.

The appendix must be complete and available at the time the EIS is filed. Five copies of the appendix must be sent to EPA with five copies of the EIS for filing. If the appendix is too bulky to be circulated, it instead must be placed in conveniently accessible locations or furnished directly to commentors upon request. If it is not circulated with the EIS, the Notice of Availability published by EPA must so state, giving a telephone number to enable potential commentors to locate or request copies of the appendix promptly.

Material that is not directly related to preparation of the EIS should be incorporated by reference. This would include other EISs, research papers in the general literature, technical background papers or other material that someone with technical training could use to evaluate the analysis of the proposal. These must be made available, either by citing the literature, furnishing copies to central locations, or sending copies directly to commentors upon request.

Care must be taken in all cases to ensure that material incorporated by reference, and the occasional appendix that does not accompany the EIS, are in fact available for the full minimum public comment period.

26a. Index and Keyword Index in EISs. How detailed must an EIS index be?

A. The EIS index should have a level of detail sufficient to focus on areas of the EIS of reasonable interest to any reader. It cannot be restricted to the most important topics. On the other hand, it need not identify every conceivable term or phrase in the EIS. If an agency believes that the reader is reasonably likely to be interested in a topic, it should be included.

26b. Is a keyword index required?

A. No. A keyword index is a relatively short list of descriptive terms that identifies the key concepts or subject areas in a document. For example it could consist of 20 terms which describe the most significant aspects of an EIS that a future researcher would need: type of proposal, type of impacts, type of environment, geographical area, sampling or

modeling methodologies used. This technique permits the compilation of EIS data banks, by facilitating quick and inexpensive access to stored materials. While a keyword index is not required by the regulations, it could be a useful addition for several reasons. First, it can be useful as a quick index for reviewers of the EIS, helping to focus on areas of interest. Second, if an agency keeps a listing of the keyword indexes of the EISs it produces, the EIS preparers themselves will have quick access to similar research data and methodologies to aid their future EIS work. Third, a keyword index will be needed to make an EIS available to future researchers using EIS data banks that are being developed. Preparation of such an index now when the document is produced will save a later effort when the data banks become operational.

27a. List of Preparers. If a consultant is used in preparing an EIS, must the list of preparers identify members of the consulting firm as well as the agency NEPA staff who were primarily responsible?

A. Section 1502.17 requires identification of the names and qualifications of persons who were primarily responsible for preparing the EIS or significant background papers, including basic components of the statement. This means that members of a consulting firm preparing material that is to become part of the EIS must be identified. The EIS should identify these individuals even though the consultant's contribution may have been modified by the agency.

27b. Should agency staff involved in reviewing and editing the EIS also be included in the list of preparers?

A. Agency personnel who wrote basic components of the EIS or significant background papers must, of course, be identified. The EIS should also list the technical editors who reviewed or edited the statements.

27c. How much information should be included on each person listed?

A. The list of preparers should normally not exceed two pages. Therefore, agencies must determine which individuals had primary responsibility and need not identify individuals with minor involvement. The list of preparers should include a very brief identification of the individuals involved, their qualifications (expertise, professional disciplines) and the specific portion of the EIS for which they are responsible. This may be done in tabular form to cut down on length. A line or two for each person's qualifications should be sufficient.

28. Advance or Xerox Copies of EIS. May an agency file xerox copies of an EIS with EPA pending the completion of printing the document?

A. Xerox copies of an EIS may be filed with EPA prior to printing only if the xerox copies are simultaneously made available to other agencies and the public. Section 1506.9 of the regulations, which governs EIS filing, specifically requires Federal agencies to file EISs with EPA no earlier than the EIS is distributed to the public. However, this section does not prohibit xeroxing as a form of reproduction and distribution. When an agency chooses xeroxing as the reproduction method, the EIS must be clear and legible to permit ease of reading and ultimate microfiching of the EIS. Where color graphs are important to the EIS, they should be reproduced and circulated with the xeroxed copy.

29a. Responses to Comments. What response must an agency provide to a comment on a draft EIS which states that the EIS's methodology is inadequate or inadequately explained? For example, what level of detail must an agency include in its response to a simple postcard comment making such an allegation?

A. Appropriate responses to comments are described in Section 1503.4. Normally the responses should result in changes in the text of the EIS, not simply a separate answer at the back of the document. But, in addition, the agency

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must state what its response was, and if the agency decides that no substantive response to a comment is necessary, it must explain briefly why.

An agency is not under an obligation to issue a lengthy reiteration of its methodology for any portion of an EIS if the only comment addressing the methodology is a simple complaint that the EIS methodology is inadequate. But agencies must respond to comments, however brief, which are specific in their criticism of agency methodology. For example, if a commentor on an EIS said that an agency's air quality dispersion analysis or methodology was inadequate, and the agency had included a discussion of that analysis in the EIS, little if anything need be added in response to such a comment. However, if the commentor said that the dispersion analysis was inadequate because of its use of a certain computational technique, or that a dispersion analysis was inadequately explained because computational techniques were not included or referenced, then the agency would have to respond in a substantive and meaningful way to such a comment.

If a number of comments are identical or very similar, agencies may group the comments and prepare a single answer for each group. Comments may be summarized if they are especially voluminous. The comments or summaries must be attached to the EIS regardless of whether the agency believes they merit individual discussion in the body of the final EIS.

29b. How must an agency respond to a comment on a draft EIS that raises a new alternative not previously considered in the draft EIS?

A. This question might arise in several possible situations. First, a commentor on a draft EIS may indicate that there is a possible alternative which, in the agency's view, is not a reasonable alternative. Section 1502.14(a). If that is the case, the agency must explain why the comment does not warrant further agency response, citing authorities or reasons that support the agency's position and, if appropriate, indicate those circumstances which would trigger agency reappraisal or further response. Section 1503.4(a). For example, a commentor on a draft EIS on a coal fired power plant may suggest the alternative of using synthetic fuel. The agency may reject the alternative with a brief discussion (with authorities) of the unavailability of synthetic fuel within the time frame necessary to meet the need and purpose of the proposed facility.

A second possibility is that an agency may receive a comment indicating that a particular alternative, while reasonable, should be modified somewhat, for example, to achieve certain mitigation benefits, or for other reasons. If the modification is reasonable, the agency should include a discussion of it in the final EIS. For example, a commentor on a draft EIS on a proposal for a pumped storage power facility might suggest that the applicant's proposed alternative should be enhanced by the addition of certain reasonable mitigation measures, including the purchase and setaside of a wildlife preserve to substitute for the tract to be destroyed by the project. The modified alternative including the additional mitigation measures should be discussed by the agency in the final EIS.

A third slightly different possibility is that a comment on a draft EIS will raise an alternative which is a minor variation of one of the alternatives discussed in the draft EIS, but this variation was not given any consideration by the agency. In such a case, the agency should develop and evaluate the new alternative, if it is reasonable, in the final EIS. If it is qualitatively within the spectrum of alternatives that were discussed in the draft, a supplemental draft will not be needed. For example, a commentor on a draft EIS to designate a wilderness area within a National Forest might reasonably identify a specific tract of the forest, and urge that it be considered for designation. If the draft EIS considered designation of a range of alternative tracts which encompassed forest area of similar quality and quantity, no supplemental EIS would have to be prepared. The agency could fulfill its obligation by addressing that specific alternative in the final EIS.

As another example, an EIS on an urban housing project may analyze the alternatives of constructing 2,000, 4,000, or 6,000 units. A commentor on the draft EIS might urge the consideration of constructing 5,000 units utilizing a different configuration of buildings. This alternative is within the spectrum of alternatives already considered, and, therefore, could be addressed in the final EIS.

A fourth possibility is that a commentor points out an alternative which is not a variation of the proposal or of any alternative discussed in the draft impact statement, and is a reasonable alternative that warrants serious agency response. In such a case, the agency must issue a supplement to the draft EIS that discusses this new alternative. For example, a commentor on a draft EIS on a nuclear power plant might suggest that a reasonable alternative for meeting the projected need for power would be through peak load management and energy conservation programs. If the permitting agency has failed to consider that approach in the Draft EIS, and the approach cannot be dismissed by the agency as unreasonable, a supplement to the Draft EIS, which discusses that alternative, must be prepared. (If necessary, the same supplement should also discuss substantial changes in the proposed action or significant new circumstances or information, as required by Section 1502.9(c)(1) of the Council's regulations.)

If the new alternative was not raised by the commentor during scoping, but could have been, commentors may find that they are unpersuasive in their efforts to have their suggested alternative analyzed in detail by the agency. However, if the new alternative is discovered or developed later, and it could not reasonably have been raised during the scoping process, then the agency must address it in a supplemental draft EIS. The agency is, in any case, ultimately responsible for preparing an adequate EIS that considers all alternatives.

30. Adoption of EISs. When a cooperating agency with jurisdiction by law intends to adopt a lead agency's EIS and it is not satisfied with the adequacy of the document, may the cooperating agency adopt only the part of the EIS with which it is satisfied? If so, would a cooperating agency with jurisdiction by law have to prepare a separate EIS or EIS supplement covering the areas of disagreement with the lead agency?

A. Generally, a cooperating agency may adopt a lead agency's EIS without recirculating it if it concludes that its NEPA requirements and its comments and suggestions have been satisfied. Section 1506.3(a), (c). If necessary, a cooperating agency may adopt only a portion of the lead agency's EIS and may reject that part of the EIS with which it disagrees, stating publicly why it did so. Section 1506.3(a).

A cooperating agency with jurisdiction by law (e.g., an agency with independent legal responsibilities with respect to the proposal) has an independent legal obligation to comply with NEPA. Therefore, if the cooperating agency determines that the EIS is wrong or inadequate, it must prepare a supplement to the EIS, replacing or adding any needed information, and must circulate the supplement as a draft for public and agency review and comment. A final supplemental EIS would be required before the agency could take action. The adopted portions of the lead agency EIS should be circulated with the supplement. Section 1506.3(b). A cooperating agency with jurisdiction by law will have to prepare its own Record of Decision for its action, in which it must explain how it reached its conclusions. Each agency should explain how and why its conclusions differ, if that is the case, from those of other agencies which issued their Records of Decision earlier.

An agency that did not cooperate in preparation of an EIS may also adopt an EIS or portion thereof. But this would arise only in rare instances, because an agency adopting an EIS for use in its own decision normally would have been a cooperating agency. If the proposed action for which the EIS was prepared is substantially the same as the proposed action of the adopting agency, the EIS may be adopted as long as it is recirculated as a final EIS and the agency announces what it is doing. This would be followed by the 30-day review period and issuance of a Record of Decision by the adopting agency. If the proposed action by the adopting agency is not substantially the same as that in [46 FR 18036] the EIS (i.e., if an EIS on one action is being adapted for use in a decision on another action), the

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EIS would be treated as a draft and circulated for the normal public comment period and other procedures. Section 1506.3(b).

31a. Application of Regulations to Independent Regulatory Agencies. Do the Council's NEPA regulations apply to independent regulatory agencies like the Federal Energy Regulatory Commission (FERC) and the Nuclear Regulatory Commission?

A. The statutory requirements of NEPA's Section 102 apply to "all agencies of the federal government." The NEPA regulations implement the procedural provisions of NEPA as set forth in NEPA's Section 102(2) for all agencies of the federal government. The NEPA regulations apply to independent regulatory agencies, however, they do not direct independent regulatory agencies or other agencies to make decisions in any particular way or in a way inconsistent with an agency's statutory charter. Sections 1500.3, 1500.6, 1507.1, and 1507.3.

31b. Can an Executive Branch agency like the Department of the Interior adopt an EIS prepared by an independent regulatory agency such as FERC?

A. If an independent regulatory agency such as FERC has prepared an EIS in connection with its approval of a proposed project, an Executive Branch agency (e.g., the Bureau of Land Management in the Department of the Interior) may, in accordance with Section 1506.3, adopt the EIS or a portion thereof for its use in considering the same proposal. In such a case the EIS must, to the satisfaction of the adopting agency, meet the standards for an adequate statement under the NEPA regulations (including scope and quality of analysis of alternatives) and must satisfy the adopting agency's comments and suggestions. If the independent regulatory agency fails to comply with the NEPA regulations, the cooperating or adopting agency may find that it is unable to adopt the EIS, thus forcing the preparation of a new EIS or EIS Supplement for the same action. The NEPA regulations were made applicable to all federal agencies in order to avoid this result, and to achieve uniform application and efficiency of the NEPA process.

32. Supplements to Old EISs. Under what circumstances do old EISs have to be supplemented before taking action on a proposal?

A. As a rule of thumb, if the proposal has not yet been implemented, or if the EIS concerns an ongoing program, EISs that are more than 5 years old should be carefully reexamined to determine if the criteria in Section 1502.9 compel preparation of an EIS supplement.

If an agency has made a substantial change in a proposed action that is relevant to environmental concerns, or if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts, a supplemental EIS must be prepared for an old EIS so that the agency has the best possible information to make any necessary substantive changes in its decisions regarding the proposal. Section 1502.9(c).

33a. Referrals. When must a referral of an interagency disagreement be made to the Council?

A. The Council's referral procedure is a pre-decision referral process for interagency disagreements. Hence, Section 1504.3 requires that a referring agency must deliver its referral to the Council not later than 25 days after publication by EPA of notice that the final EIS is available (unless the lead agency grants an extension of time under Section 1504.3(b)).

33b. May a referral be made after this issuance of a Record of Decision?

A. No, except for cases where agencies provide an internal appeal procedure which permits simultaneous filing of the final EIS and the record of decision (ROD). Section 1506.10(b)(2). Otherwise, as stated above, the process is a pre-decision referral process. Referrals must be made within 25 days after the notice of availability of the final EIS, whereas the final decision (ROD) may not be made or filed until after 30 days from the notice of availability of the EIS. Sections 1504.3(b), 1506.10(b). If a lead agency has granted an extension of time for another agency to take action on a referral, the ROD may not be issued until the extension has expired.

34a. Records of Decision. Must Records of Decision (RODs) be made public? How should they be made available?

A. Under the regulations, agencies must prepare a "concise public record of decision," which contains the elements specified in Section 1505.2. This public record may be integrated into any other decision record prepared by the agency, or it may be separate if decision documents are not normally made public. The Record of Decision is intended by the Council to be an environmental document (even though it is not explicitly mentioned in the definition of "environmental document" in Section 1508.10). Therefore, it must be made available to the public through appropriate public notice as required by Section 1506.6(b). However, there is no specific requirement for publication of the ROD itself, either in the Federal Register or elsewhere.

34b. May the summary section in the final Environmental Impact Statement substitute for or constitute an agency's Record of Decision?

A. No. An environmental impact statement is supposed to inform the decisionmaker before the decision is made. Sections 1502.1, 1505.2. The Council's regulations provide for a 30-day period after notice is published that the final EIS has been filed with EPA before the agency may take final action. During that period, in addition to the agency's own internal final review, the public and other agencies can comment on the final EIS prior to the agency's final action on the proposal. In addition, the Council's regulations make clear that the requirements for the summary in an EIS are not the same as the requirements for a ROD. Sections 1502.12 and 1505.2.

34c. What provisions should Records of Decision contain pertaining to mitigation and monitoring?

A. Lead agencies "shall include appropriate conditions [including mitigation measures and monitoring and enforcement programs] in grants, permits or other approvals" and shall "condition funding of actions on mitigation." Section 1505.3. Any such measures that are adopted must be explained and committed in the ROD.

The reasonable alternative mitigation measures and monitoring programs should have been addressed in the draft and final EIS. The discussion of mitigation and monitoring in a Record of Decision must be more detailed than a general statement that mitigation is being required, but not so detailed as to duplicate discussion of mitigation in the EIS. The Record of Decision should contain a concise summary identification of the mitigation measures which the agency has committed itself to adopt.

The Record of Decision must also state whether all practicable mitigation measures have been adopted, and if not, why not. Section 1505.2(c). The Record of Decision must identify the mitigation measures and monitoring and enforcement programs that have been selected and plainly indicate that they are adopted as part of the agency's decision. If the proposed action is the issuance of a permit or other approval, the specific details of the mitigation measures shall then be included as appropriate conditions in whatever grants, permits, funding or other approvals are being made by the federal agency. Section 1505.3 (a), (b). If the proposal is to be carried out by the [46 FR 18037] federal agency itself, the Record of Decision should delineate the mitigation and monitoring measures in sufficient detail to constitute an enforceable commitment, or incorporate by reference the portions of the EIS that do so.

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34d. What is the enforceability of a Record of Decision?

A. Pursuant to generally recognized principles of federal administrative law, agencies will be held accountable for preparing Records of Decision that conform to the decisions actually made and for carrying out the actions set forth in the Records of Decision. This is based on the principle that an agency must comply with its own decisions and regulations once they are adopted. Thus, the terms of a Record of Decision are enforceable by agencies and private parties. A Record of Decision can be used to compel compliance with or execution of the mitigation measures identified therein.

35. Time Required for the NEPA Process. How long should the NEPA process take to complete?

A. When an EIS is required, the process obviously will take longer than when an EA is the only document prepared. But the Council's NEPA regulations encourage streamlined review, adoption of deadlines, elimination of duplicative work, eliciting suggested alternatives and other comments early through scoping, cooperation among agencies, and consultation with applicants during project planning. The Council has advised agencies that under the new NEPA regulations even large complex energy projects would require only about 12 months for the completion of the entire EIS process. For most major actions, this period is well within the planning time that is needed in any event, apart from NEPA.

The time required for the preparation of program EISs may be greater. The Council also recognizes that some projects will entail difficult long-term planning and/or the acquisition of certain data which of necessity will require more time for the preparation of the EIS. Indeed, some proposals should be given more time for the thoughtful preparation of an EIS and development of a decision which fulfills NEPA's substantive goals.

For cases in which only an environmental assessment will be prepared, the NEPA process should take no more than 3 months, and in many cases substantially less, as part of the normal analysis and approval process for the action.

36a. Environmental Assessments (EA). How long and detailed must an environmental assessment (EA) be?

A. The environmental assessment is a concise public document which has three defined functions. (1) It briefly provides sufficient evidence and analysis for determining whether to prepare an EIS; (2) it aids an agency's compliance with NEPA when no EIS is necessary, i.e., it helps to identify better alternatives and mitigation measures; and (3) it facilitates preparation of an EIS when one is necessary. Section 1508.9(a).

Since the EA is a concise document, it should not contain long descriptions or detailed data which the agency may have gathered. Rather, it should contain a brief discussion of the need for the proposal, alternatives to the proposal, the environmental impacts of the proposed action and alternatives, and a list of agencies and persons consulted. Section 1508.9(b).

While the regulations do not contain page limits for EA's, the Council has generally advised agencies to keep the length of EAs to not more than approximately 10-15 pages. Some agencies expressly provide page guidelines (e.g., 10-15 pages in the case of the Army Corps). To avoid undue length, the EA may incorporate by reference background data to support its concise discussion of the proposal and relevant issues.

36b. Under what circumstances is a lengthy EA appropriate?

A. Agencies should avoid preparing lengthy EAs except in unusual cases, where a proposal is so complex that a concise document cannot meet the goals of Section 1508.9 and where it is extremely difficult to determine whether

the proposal could have significant environmental effects. In most cases, however, a lengthy EA indicates that an EIS is needed.

37a. Findings of No Significant Impact (FONSI). What is the level of detail of information that must be included in a finding of no significant impact (FONSI)?

A. The FONSI is a document in which the agency briefly explains the reasons why an action will not have a significant effect on the human environment and, therefore, why an EIS will not be prepared. Section 1508.13. The finding itself need not be detailed, but must succinctly state the reasons for deciding that the action will have no significant environmental effects, and, if relevant, must show which factors were weighted most heavily in the determination. In addition to this statement, the FONSI must include, summarize, or attach and incorporate by reference, the environmental assessment.

37b. What are the criteria for deciding whether a FONSI should be made available for public review for 30 days before the agency's final determination whether to prepare an EIS?

A. Public review is necessary, for example, (a) if the proposal is a borderline case, i.e., when there is a reasonable argument for preparation of an EIS; (b) if it is an unusual case, a new kind of action, or a precedent setting case such as a first intrusion of even a minor development into a pristine area; (c) when there is either scientific or public controversy over the proposal; or (d) when it involves a proposal which is or is closely similar to one which normally requires preparation of an EIS. Sections 1501.4(e)(2), 1508.27. Agencies also must allow a period of public review of the FONSI if the proposed action would be located in a floodplain or wetland. E.O. 11988, Sec. 2(a)(4); E.O. 11990, Sec. 2(b).

38. Public Availability of EAs v. FONSIs. Must (EAs) and FONSIs be made public? If so, how should this be done?

A. Yes, they must be available to the public. Section 1506.6 requires agencies to involve the public in implementing their NEPA procedures, and this includes public involvement in the preparation of EAs and FONSIs. These are public "environmental documents" under Section 1506.6(b), and, therefore, agencies must give public notice of their availability. A combination of methods may be used to give notice, and the methods should be tailored to the needs of particular cases. Thus, a Federal Register notice of availability of the documents, coupled with notices in national publications and mailed to interested national groups might be appropriate for proposals that are national in scope. Local newspaper notices may be more appropriate for regional or site-specific proposals.

The objective, however, is to notify all interested or affected parties. If this is not being achieved, then the methods should be reevaluated and changed. Repeated failure to reach the interested or affected public would be interpreted as a violation of the regulations.

39. Mitigation Measures Imposed in EAs and FONSIs. Can an EA and FONSI be used to impose enforceable mitigation measures, monitoring programs, or other requirements, even though there is no requirement in the regulations in such cases for a formal Record of Decision?

A. Yes. In cases where an environmental assessment is the appropriate environmental document, there still may be mitigation measures or alternatives that would be desirable to consider and adopt even though the impacts of the proposal will not be "significant." In such cases, the EA should include a discussion of these measures or alternatives to "assist [46 FR 18038] agency planning and decisionmaking" and to "aid an agency's compliance with [NEPA] when no environmental impact statement is necessary." Section 1501.3(b), 1508.9(a)(2). The appropriate mitigation

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measures can be imposed as enforceable permit conditions, or adopted as part of the agency final decision in the same manner mitigation measures are adopted in the formal Record of Decision that is required in EIS cases.

40. Propriety of Issuing EA When Mitigation Reduces Impacts. If an environmental assessment indicates that the environmental effects of a proposal are significant but that, with mitigation, those effects may be reduced to less than significant levels, may the agency make a finding of no significant impact rather than prepare an EIS? Is that a legitimate function of an EA and scoping?

[N.B.: Courts have disagreed with CEQ's position in Question 40. The 1987-88 CEQ Annual Report stated that CEQ intended to issue additional guidance on this topic. Ed. note.]

A. Mitigation measures may be relied upon to make a finding of no significant impact only if they are imposed by statute or regulation, or submitted by an applicant or agency as part of the original proposal. As a general rule, the regulations contemplate that agencies should use a broad approach in defining significance and should not rely on the possibility of mitigation as an excuse to avoid the EIS requirement. Sections 1508.8, 1508.27.

If a proposal appears to have adverse effects which would be significant, and certain mitigation measures are then developed during the scoping or EA stages, the existence of such possible mitigation does not obviate the need for an EIS. Therefore, if scoping or the EA identifies certain mitigation possibilities without altering the nature of the overall proposal itself, the agency should continue the EIS process and submit the proposal, and the potential mitigation, for public and agency review and comment. This is essential to ensure that the final decision is based on all the relevant factors and that the full NEPA process will result in enforceable mitigation measures through the Record of Decision.

In some instances, where the proposal itself so integrates mitigation from the beginning that it is impossible to define the proposal without including the mitigation, the agency may then rely on the mitigation measures in determining that the overall effects would not be significant (e.g., where an application for a permit for a small hydro dam is based on a binding commitment to build fish ladders, to permit adequate down stream flow, and to replace any lost wetlands, wildlife habitat and recreational potential). In those instances, agencies should make the FONSI and EA available for 30 days of public comment before taking action. Section 1501.4(e)(2).

Similarly, scoping may result in a redefinition of the entire project, as a result of mitigation proposals. In that case, the agency may alter its previous decision to do an EIS, as long as the agency or applicant resubmits the entire proposal and the EA and FONSI are available for 30 days of review and comment. One example of this would be where the size and location of a proposed industrial park are changed to avoid affecting a nearby wetland area.

3.2 The Major Investment Study (MIS)

The following is paraphrased from the Washington State Department of Transportation (WSDOT) Major Investment Study (MIS) Guidelines. September 1996 found at www.wsdot.wa.gov/ppsc/planning/mis.htm

The Federal Highway Administration and Federal Transit Administration developed guidance based on ISTEA which included the requirements for Major Investment Studies (MIS) for Metropolitan Planning guidance. Major Investment Studies are tools to aid the decision making process by providing more complete information on the options for addressing transportation problems. Major Investment Studies can help to level the playing field among modal alternatives by providing a single integrated analysis process that looks at all modes equally.

The Major Investment Study is a sub-element of the Metropolitan Transportation Planning (MTP) process. It focuses on corridor or subarea transportation demand and other problems that may lead to transit or highway investments that have a substantial capital investment and impact on the metropolitan transportation system.

Flexibility is the key to the Major Investment Study process. The goal is to produce the information necessary to make the best investment decision, while minimizing the funding resources needed to produce that information. The guidelines are deliberately generalized to avoid specific recommendations that would not be applicable to all types of studies.

The Major Investment Study process is tied to the development of environmental documentation, so a determination of when to begin Major Investment Study development should be made to coincide with the environmental process. The environmental process will use Major Investment Study analysis as an input if the Major Investment Study is started during the planning process. The Major Investment Study should be concluded before including a project in the TIP. Major investment studies are aimed at deficiencies that have the following characteristics: major demand problem; on a corridor or subarea level; require a substantial capital investment; and have significant impact on the metropolitan transportation system.

Major Investment Study are designed to develop alternatives which represent the full range of modal solutions; to evaluate alternatives; to determine what information is required; and to identify what technical methods should be used. The statement should be based on underlying causes and should not be mode specific. The problem statement should describe the problem itself, not symptoms of the problem. The steering committee determines goals and objectives after the problem statement is completed.

A Major Investment Study should consider all reasonable alternatives, including demand and system management options when appropriate. No alternative should be analyzed after it has been determined to be unfeasible. A Major Investment Study alternative should be a design concept for a transportation mode, operations element, or demand management strategy. The location, general alignment and termini should be identified. Each alternative should be distinguished from other alternatives based on its performance, benefits, cost, and/or impacts. All alternatives should be sufficiently distinctive that they are not confused with other alternatives.

There are different methods for analyzing modal alternatives. While there is no one correct methodology, certain methods work better in certain areas, and the precision needed may differ by problem and by region. The goal is to perform the minimum amount of analysis needed to identify the preferred alternative. When the method of analysis is unclear, it should be determined by a consensus of the Scoping Committee.

After completion of MIS analysis, the findings should be documented. The documentation usually occurs either in the project's environmental document or in a separate report document. There is no formal approval of a Major Investment Study findings. After the lead agency prepares the documentation, it should be distributed to all stakeholders. After an agreed upon and brief period for comment and acceptance of the preferred alternative by the Major Investment Study steering committee, the Major Investment Study will be considered final.

Two options exist within Major Investment Study development for environmental documentation such as environmental impact statements. Table 1 shows the two options. In Option One, the Major Investment Study is completed before the environmental documentation. In Option Two, the Major Investment Study and environmental document are developed concurrently. The determination of which "option" to use is entirely dependent on what point in the project's life the Major Investment Study is started.

Requirements for analyzing alternatives to capacity expansion projects in the Congestion Management System (CMS) are similar to Major Investment Study requirements, however they are less rigorous. While a Congestion Management System requires some consideration of modal alternatives, a Major Investment Study will analyze

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alternatives on a specific project/corridor/suburen level, while the Congestion Management System will analyze on more of a system wide level. Some deficiencies that do not require an Major Investment Study will require alternatives analysis under the Congestion Management System. Any deficiency that undergoes a Major Investment Study will meet analysis requirements of the Congestion Management System.

How do Major Investment Studies relate to Least Cost Planning? Least Cost Planning requires that Regional Transportation Plans undergo alternatives analysis. Least cost planning, as defined in Washington State law, will analyze the entire regional plan. Like the Congestion Management System, least cost planning will apply to more of a system level, and will be less rigorous than an Major Investment Study.

3.3 Hawai'i Revised Statutes (HRS 343)

§343-1 Findings and purpose. The legislature finds that the quality of humanity's environment is critical to humanity's well being, that humanity's activities have broad and profound effects upon the interrelations of all components of the environment, and that an environmental review process will integrate the review of environmental concerns with existing planning processes of the State and counties and alert decision makers to significant environmental effects which may result from the implementation of certain actions. The legislature further finds that the process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole.

3.4 Hawai'i Administrative Rules (HAR 11-200)

§11-200-1 Purpose. Chapter 343, HRS, establishes a system of environmental review at the state and county levels which shall ensure that environmental concerns are given appropriate consideration in decision making along with economic and technical considerations. The purpose of this chapter is to provide agencies and persons with procedures, specifications of contents of environmental assessments and environmental impact statements, and criteria and definitions of statewide application.

"Cumulative impact" means the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

"Primary impact" or "primary effect" or "direct impact" or "direct effect" means effects which are caused by the action and occur at the same time and place.

"Secondary impact" or "secondary effect" or "indirect impact" or "indirect effect" means effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

§11-200-7 Multiple or phased applicant or agency actions. A group of actions proposed by an agency or an applicant shall be treated as a single action when:

(1) The component actions are phases or increments of a larger total undertaking;

(2) An individual project is a necessary precedent for a larger project;

(3) An individual project represents a commitment to a larger project; or

(4) The actions in question are essentially identical and a single statement will adequately address the impacts of each individual action and those of the group of actions as a whole.

§11-200-14 General provisions. Chapter 343, HRS, directs that in both agency and applicant actions where statements are required, the preparing party shall prepare the EIS, submit it for review and comments, and revise it, taking into account all critiques and responses. Consequently, the EIS process involves more than the preparation of a document; it involves the entire process of research, discussion, preparation of a statement, and review. The EIS process shall involve at a minimum: identifying environmental concerns, obtaining various relevant data, conducting necessary studies, receiving public and agency input, evaluating alternatives, and proposing measures for avoiding, minimizing, rectifying or reducing adverse impacts. An EIS is meaningless without the conscientious application of the EIS process as a whole, and shall not be merely a self-serving recitation of benefits and a rationalization of the proposed action. Agencies shall ensure that statements are prepared at the earliest opportunity in the planning and decision-making process. This shall assure an early open forum for discussion of adverse effects and available alternatives, and that the decision-makers will be enlightened to any environmental consequences of the proposed action. [Eff 12/6/85; am and comp AUG 31 1996] (Auth: HRS §343-5, 343-6) (Imp: HRS §343-6)

§11-200-16 Content requirements. The environmental impact statement shall contain an explanation of the environmental consequences of the proposed action. The contents shall fully declare the environmental implications of the proposed action and shall discuss all relevant and feasible consequences of the action. In order that the public can be fully informed and that the agency can make a sound decision based upon the full range of responsible opinion on environmental effects, a statement shall include responsible opposing views, if any, on significant environmental issues raised by the proposal. [Eff 12/6/85; am and comp AUG 31 1996] (Auth: HRS §343-5, 343-6) (Imp: HRS §343-2, 343-5, 343-6)

§11-200-17 Content requirements; draft environmental impact statement. ... (f) The draft EIS shall describe in a separate and distinct section alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks. Examples of alternatives include:

(1) The alternative of no action;

(2) Alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts;

(3) Alternatives related to different designs or details of the proposed actions which would present different environmental impacts;

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(4) The alternative of postponing action pending further study; and,

(5) Alternative locations for the proposed project.

In each case, the analysis shall be sufficiently detailed to allow the comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative. For any agency actions, the discussion of alternatives shall include, where relevant, those alternatives not within the existing authority of the agency. ...

(i) The draft EIS shall include a statement of the probable impact of the proposed action on the environment, and impacts of the natural or human environment on the project, which shall include consideration of all phases of the action and consideration of all consequences on the environment; direct and indirect effects shall be included. The interrelationships and cumulative environmental impacts of the proposed action and other related projects shall be discussed in the draft EIS. It should be realized that several actions, in particular those that involve the construction of public facilities or structures (e.g., highways, airports, sewer systems, water resource projects, etc.) may well stimulate or induce secondary effects. These secondary effects may be equally important as, or more important than, primary effects, and shall be thoroughly discussed to fully describe the probable impact of the proposed action on the environment. The population and growth impacts of an action shall be estimated if expected to be significant, and an evaluation made of the effects of any possible change in population patterns or growth upon the resource base, including but not limited to land use, water, and public services, of the area in question. Also, if the proposed action constitutes a direct or indirect source of pollution as determined by any governmental agency, necessary data shall be incorporated into the EIS.

§11-200-19 Environmental impact statement style. In developing the EIS, preparers shall make every effort to convey the required information succinctly in a form easily understood, both by members of the public and by public decision-makers, giving attention to the substance of the information conveyed rather than to the particular form, or length, or detail of the statement. The scope of the statement may vary with the scope of the proposed action and its impact. Data and analyses in a statement shall be commensurate with the importance of the impact, and less important material may be summarized, consolidated, or simply referenced. Statements shall indicate at appropriate points in the text any underlying studies, reports, and other information obtained and considered in preparing the statement, including cost benefit analyses and reports required under other legal authorities. Care shall be taken to concentrate on important issues and to ensure that the statement remains an essentially self-contained document, capable of being understood by the reader without the need for undue cross-reference.

3.5 Federal Highway Administration (FHWA)/ Federal Transportation Administration (FTA)

Public involvement in transportation investment decisionmaking is central. Transportation investment decisions have far-reaching effects. Public input is essential in adequately considering them. An effective public involvement process provides for an open exchange of information and ideas between the public and transportation decisionmakers. The overall objective of an area's public involvement process is that it be proactive, provide complete information, timely public notice, full public access to key decisions, and opportunities for early and continuing involvement. It also provides mechanisms for the agency or agencies to solicit public comments and ideas, identify circumstances and impacts which may not have been known or anticipated by public agencies, and, by doing so, to build support among the public who are stakeholders in transportation investments which impact their communities.
A good indicator of an effective public involvement process is a well informed public which feels it has opportunities to contribute input into transportation decisionmaking processes through a broad array of involvement opportunities at all stages of decisionmaking. In contrast, an ineffective process is one that relies on one or two

public meetings or hearings to obtain input immediately prior to decisionmaking on developed draft plans and programs.

"Six useful key elements in planning for effective public involvement are:

(1) Clearly-defined purpose and objectives for initiating a public dialogue on transportation plans, programs, and projects,

(2) Identification of specifically who the affected public and other stakeholder groups are with respect to the plan(s), program(s), and project(s) under development,

(3) Identification of techniques for engaging the public in the process,

(4) Notification procedures which effectively target affected groups,

(5) Education and assistance techniques which result in an accurate and full public understanding of the transportation problem, potential solutions, and obstacles and opportunities within various solutions to the problem, and,

(6) Follow through by public agencies demonstrating that decisionmakers seriously considered public input." [2] What are some of the key considerations in planning for effective public involvement? *FHWA/FTA Questions and Answers on Public Involvement in Transportation Decisionmaking*

Technical Access "Under the ISTEA and related regulations, the public must have reasonable access to technical assumptions and specifications used in planning and emissions models. This includes access to input assumptions such as population projections, land use projections, fares, tolls, levels of service, the structure and specifications of travel demand and other evaluation tools. To the maximum extent possible, all technical information should be made available in formats which are easily accessible and understandable by the general public. *FHWA/FTA Questions and Answers on Public Involvement in Transportation Decisionmaking*

Chapter 4 Experiences of Other Communities

OMPO: "In Santa Clara, the light rail system really helped reduce traffic congestion by moving masses of people from residential areas to the work centers. In Portland, its fully integrated transportation system reduced traffic congestion, increased mobility, and lowered infrastructure costs. This integrated system even enabled them to convert a freeway into a park. Also, new land use laws helped them determine commuter packages. In both Santa Clara and Portland, transportation developments spurred retail and residential growth along transit lines and around transit malls. In Vancouver, ferries were incorporated as a transportation mode to move people from the residential areas to the downtown business areas. Retail malls developed around the ferry terminals." City and County of Honolulu Transportation Commissioner Paul Leong. OMPO Policy Committee ("OMPO-PC") Minutes. Tuesday, December 1, 1998, 10:30 a.m.

OMPO: "Councilmember Mansho noted that, for the financing of rail design and construction, Portland used local property taxes and a 0.6% payroll tax (like a sales tax on the operating expenses). The biggest difference discovered between Hawaii's initial attempt at acquiring rail and Portland's approach was that Portland's goals included planning livable communities and congestion management. All the statistics and data the Council has been receiving over the past years show that rail doesn't necessarily reduce all the congestion; it manages the congestion. Benefits of rail also include economic stimulus, land use planning, and urban growth boundary lines. These factors played a Life of the Land

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bigger role in our current discussions on rail and the future." OMPO-PC Minutes. Tuesday, December 1, 1998, 10:30 a.m.

SmartGrowth: "As anyone who reads the fiction in The New Yorker knows, American mostly live in banal places with the souls of shopping malls, affording nowhere to mingle except traffic jams, nowhere to walk except in the health club. But economic unsustainability may carry more weight. A conference on 'Alternatives to Sprawl' at the Brookings Institution this year was electrified by a report from the Bank of America endorsing the formerly elitist view that sprawl in California has created 'enormous social, environmental and economic costs, which until now have been hidden, ignored, or quietly borne by society ... Businesses suffer from higher costs, a loss in worker productivity, and underutilized investments in older communities.' 'You can't keep spreading out,' says Mike Burton, executive director of Portland, Ore.'s metropolitan government, Metro. 'The cost to make roads and sewers gets to the point where it doesn't work.'" Paved Paradise By Jerry Adler *www.smartgrowth.org/*

Chapter 5 Alternatives

5.1 A Super Enhanced Bus System Management (TSM) Alternative

Parsons Brinkerhoff Quade & Douglas proposed two versions of the TSM Alternative for the Orange County, California Major Investment Study. One increased existing buses by approximately 49% the other by approximately 116%.

Honolulu should evaluate two different expanded bus-only scenarios. The first would encourage a "balanced" approach relying on increased efficiency for both buses and cars. The second would "encourage" people to take buses. The second approach, the "Enhanced Bus System (EBS) would not decrease the current level of congestion. It would instead focus on developing a highly efficient bus system. People would then face two options: car congestion and bus efficiency. This would cause people to shift from cars to buses which would indirectly reduce congestion while sharply reducing air pollution, non-point-source-pollution (oil, metals) and make the city more "sustainable."

"Any successful transportation plan will make it easier and more pleasant to drive, not more difficult" Islandwide Mobility Concept Plan, page 2. This point rather succinctly summarizes all the proposed plans by the consultant. They are designed to increase the joy of driving. A super enhanced bus system is based on the opposite. By having congestion, people find the bus to be more desirable. At the same time, the super-availability of the bus and the variety of routes offered, would lead to widespread enjoyment of the bus.

2 An Enhanced Bus System is a reasonable and viable alternative (CEQ Q1a,b). The alternative is "practical' and "feasible from the technical and economic standpoint and using common sense" (CEQ Q2a). It is an environmental preferable alternative (CEQ 6a) since it would result in less vehicular air pollution and oil/heavy metal non-point-source runoff than other alternatives listed in the Environmental Impact Statement Preparation Notice. It is "the alternative that causes less damage to the biological and physical environment" and it is "the alternative which greatly protects, preserves, and enhances historic, cultural, and natural resources." Furthermore the Enhanced Bus System is a viable option under the Major Investment Study process.

The Enhanced Bus System would further expand on the Express Bus & Circulator Bus System. The system would provide high capacity; frequent service; ziplane and busways; express routes from outer communities; bus priority measures on arterial routes; local bus routes; neighborhood circulators; transit centers to transfer between routes and modes.

Express Buses should run every 15-20 minutes during the full rush hour and every 30-45 minutes during the rest of the day. There should be two seperate but linked Express Bus systems: one offering service to Honolulu and one

offering service to Kapolei (which is our "second city"). Circulator buses should offer more complete service to the military bases (including Helemano). Regional bus service should link neighboring communities (such as Wahiawa, Mililani, Waipio and Waikele).

2

The number of buses acquired by this alternative would be at least twice that of the regular bus expansion alternative.

At $250 a ticket, enforcement of the two-person HOV lane could initially finance a large part of this alternative. It has been alleged that there is no place to pull over vehicles who's occupant appears to be driving solo. It has also been alleged that it is inefficient to mail tickets to apparent violators because many people state that they had a hidden passenger. However, at $250 a ticket, it is profitable for the police to follow a car for up to 20 miles and pull the car over somewhere else. If tickets led to drivers obeying the HOV lanes, then the lanes would suddenly lose 30% of the vehicles currently occupying them. The HOV lanes would move faster, appear to be more appealing than the regular lanes, and lead to greater carpooling.

3

As drivers shifted to HOV lanes and buses, congestion would decrease. The expansion of the zipper lane to Middle Street would make transit more efficient.

5.2 A Commuter-Based Dedicated Bicycle Lane System Alternative

"A successful Transportation Demand Management (TDM) must evaluate all forms of alternative modes of transportation designed to reduce the use of single occupant vehicles. This includes buses, carpools, vans and bicycles. The bicycle component of TDM must include bicycle use for recreation and business commutes as well as bicycle parking." San Francisco Bicycle Plan

A Commuter-Based Dedicated Bicycle Lane System Alternative is a reasonable and viable alternative (CEQ Q1a,b). The alternative is "practical' and "feasible from the technical and economic standpoint and using common sense" (CEQ Q2a). It is the most environmental preferable alternative (CEQ 6a) since it would result the least vehicular air pollution and oil/heavy metal non-point-source runoff than other alternatives listed in the Environmental Impact Statement Preparation Notice. It is "the alternative that causes the least damage to the biological and physical environment" and it is "the alternative which greatly protects, preserves, and enhances historic, cultural, and natural resources." Furthermore the Commuter-Based Dedicated Bicycle Lane System Alternative is a viable option under the Major Investment Study process.

4 "Honolulu is already a great city for bicycles - and it has a potential to be one of the best! It has physical beauty, mild year-around climate, relatively flat coastal plain and a compact form making it ideal for bicycle transportation." The Honolulu Bikeway System Master Plan (www.co.honolulu.hi.us/dts/)

"The potential is great for bicycles to become a significant transportation mode in urban Honolulu. Already, more than three times as many commuters use bicycles to get to work as the national average, despite a scarcity of well located bikeways and sufficient end-of-transit facilities" The Honolulu Bikeway System Master

"Bicycling is a very popular form of recreation for Honolulu residents." The Honolulu Bikeway System Master

"Bicycling is a pollution-free, economical and healthy alternative transportation mode for many work, shopping and recreational trips in Honolulu. The limited supply and high cost of parking as well as traffic congestion and the City's compactness make bicycling an attractive option for many."

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"The key to a successful implementation strategy, as evidenced by the experience of other cities, has been the routinization of bicycle planning considerations in the on-going planning and design phases of a capital construction project. In particular, the inclusion of bicycle design standards must be at a phase sufficiently early in the project's development that there are no adverse cost implications that might curtail their inclusion." San Francisco Bicycle Plan

Bicycle Lanes can be classified by the amount of multi-use activity: dedicated bike path; dedicated lane; dedicated half-lane; car/bike lane designated as a multiuse lane; and non-bike-designated car lane.

"Many parents prohibit their children from riding bicycles to school due to fears about safety on the streets." The Honolulu Bikeway System Master Plan

Currently, during the rush hour, residents of Palolo can travel to Hotel Street equally quickly by car or bike. Many chose cars because of the inherent danger associated with riding bicycles in a congested vehicle area.

Some of the members of Life of the Land have been injured while on their bicycles in the downtown area. Many of our members would chose to use bicycles some or all of the time if dedicated bicycle lanes provided a safe, convenient commute.

"The City should install on-street bicycle parking in retail districts, activity centers or developments in areas where businesses or landlords are not individually responsible for off-street parking. This program must include bicycle parking in both the public right-of-way and in the private off-street parking lots of existing businesses, including supermarkets, super drugstores, retail stores, shopping malls, and employment sites." San Francisco Bicycle Plan

4

California found the four most common forms of accidents caused by automobile drivers to bike riders were: Opening car door when unsafe; failure to yield when turning left; unsafe turn and/or without signaling; and unsafe speed.

"It should be noted at the outset that a wide spectrum of traditional funding sources is available for bicycle programs and projects. Following the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991, several new funding opportunities became available for bicycle projects and programs. The opportunities to develop regional funding requests that included a greater emphasis on air quality, congestion mitigation, and balanced transportation systems allowed bicycle programs to be evaluated routinely along with highway and transit requests. These Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ) funds were further expanded via the federal government's annual consideration of worthy demonstration projects." San Francisco Bicycle Plan

Commuter biking will increase with the creation of dedicated bike lanes that connect residential areas with the downtown and with the university. The route most suggested by environmentalists has been Young Street. The proposal by the consultant in this study - to reduce the car lanes on the Nimitz - provides another opportunity. One possible dedicated bicycle route would be from the University area along (a) Dole Street; (b) a dedicated bike lane over the H-1; (c) a dedicated lane along Isenburg; (d) conversion of Young Street to five lanes (parking on each side; one-lane-one-way car traffic; and two-way bicycle traffic); (e) a dedicated bike path through or around the edge of Thomas Square; (f) Hotel Street; (g) a dedicated path paralleling the current pedestrian path by the City and State Governmental buildings; (h) dedicated lane on Richards; (i) dedicated lanes on Nimitz.

5.3 A Light Rail Transit (LRT) Alternative.

"DTS would like to lay out an entire system that doesn't require the whole system to be in place in order to be of value. DTS would develop a program that could be implemented incrementally, in phases, according to ability to pay. The policy makers will need to decide what the ability to pay is for each particular phase." Policy Committee Meeting OMPO Policy Committee. August 4, 1998, 10:30 a.m.

Chapter 6 Assumptions & Models Common to all Alternatives

6.1 Road Network Assumptions

There may be an increase in vehicle-miles due to the building of alternate routes (Sand Island Parkway; Nimitz Highway); providing radio coverage/electronic signs on traffic jams; and/or the ending of the Hawaii and/or Asian recessions;

6.2 Travel Demand Management Assumptions

There may be an decrease in vehicle-miles due to people shifting from one-person per vehicle to carpools, rail and/or buses, perhaps due to the availability of all-day express buses.

There may be a shift in destinations due to the development of the Second City; building the Natatorium; expanding the Aloha Tower Marketplace; development of cruise ship berths; and/or building the Waipio/Kalaeloa Sports Complexes.

5

There may be an increase in bus use with no decrease in vehicle-miles due to the availability of all-day express buses that will encourage people (elderly and youth) who would stay home without the service. This phenomena was written about regarding the Mililani Trolley in the latest issue of Ka Nupepa.

OMPO: "Gordon Lum explained that ... OMPO is also in the process of finalizing the development of new travel forecasting models. ... These models will also be more sensitive to some of our travel needs, including transit forecasts. In order to ensure that these models are used by OMPO staff as well as the agencies, OMPO requires this in-house capability. Otherwise, OMPO would have to continue to rely upon consultants to use these models." OMPO-PC Minutes Tuesday, September 1, 1998, 10:30 a.m

6.3 Population Growth Assumptions

There may be an increase in vehicle-miles and bus/train use due to population growth, tourism growth and/or the rejuvenation of Waikiki, since under the existing limits of the Waikiki Special District (WSD) the floor area of Waikiki has already been zoned to expand from the current 7M square feet to 14M square feet, in effect, doubling in size.

5

6.4 Models: Outcome Success vs. Failure

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The model may measure success or failure through the use of indices such as the "Time Of Travel" (TOT) and/or the "Level Of Service" (LOS) or through some other means. The model should clearly identify why a particular measure of success was chosen.

5 Determining whether a project will be successful or not frequently boils down to the model chosen, the assumptions (often unstated) assumed and the data used. It sort of seems to make sense that if there are more buses and or trains, the number of vehicles on the role will decrease. But this does not necessarily follow.

6.5 Sensitivity Analysis of the Model

5 How dependent is the models solution on the model, assumptions and data used? When the data is chosen, the assumptions are assumed and the model is used, a result will follow. But how will the result change under minimal alterations of the given?

Chapter 7 Environmental Consequences

7.1 Unusual Impacts?

"Cities like Honolulu have grown up next to deep harbors and at the intersections of railroads and rivers." Islandwide Mobility Concept Plan, page 10

6 "Freeway ramps have attracted development of shopping malls and 'big box' stores. Neighborhood shopping districts have thrived where pedestrians walk. Islandwide Mobility Concept Plan, page 10. Perhaps that is why Office Depot is arriving, they will be next to a not-yet-publicly-announced freeway ramp. We thought it was because of the million dollar financial package.

7.2 Cumulative and Secondary Impacts

"Cumulative impact" means the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (HAR §11-200-1)

"Primary impact" or "primary effect" or "direct impact" or "direct effect" means effects which are caused by the action and occur at the same time and place. (HAR §11-200-1)

7

"Secondary impact" or "secondary effect" or "indirect impact" or "indirect effect" means effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. (HAR §11-200-1)

A group of actions proposed by an agency or an applicant shall be treated as a single action when: (1) The component actions are phases or increments of a larger total undertaking; (2) An individual project is a necessary precedent for a larger project; (3) An individual project represents a commitment to a larger project; or (4) The actions in question are essentially identical and a single statement will adequately address the impacts of each individual action and those of the group of actions as a whole. (HAR §11-200-7)

"Promoting economic development is also critical to maintaining the health of our island communities." Islandwide Mobility Concept Plan, page vi. "Honolulu must find a way to preserve, maintain, and protect the quality of life of its
7 people and the health of its environment, while providing for the growth necessary for prosperity." Islandwide Mobility Concept Plan, page 2. (Are they stating that: "stability requires growth")

7.3 Air Quality Impacts

How will air quality change as a result of secondary growth resulting from the new bus and/or bus/rail system? It should be realized that several actions, in particular those that involve the construction of public facilities ... may
8 well stimulate or induce secondary effects. These secondary effects may be equally important as, or more important than, primary effects, and shall be thoroughly discussed ... and an evaluation made of the effects of any possible change in population patterns or growth upon the resource base" (HAR §11-200-17(i))

7.4 Water Resources Impacts

It should be realized that several actions, in particular those that involve the construction of public facilities ... may
9 well stimulate or induce secondary effects. These secondary effects may be equally important as, or more important than, primary effects, and shall be thoroughly discussed ... and an evaluation made of the effects of any possible change in population patterns or growth upon the resource base, including ... water" (HAR §11-200-17(i))

7.5 Transportation Model Impacts

Should we be moving toward greater use of mass transit OR greater use of cars OR be designing a system that has something for everything and has a huge price tag for our recession-based economy? "Road building and automobile use have a synergistic relationship that is ultimately unsustainable, since it leads to ever more road building, cars, congestion, and reduction in the quality of the environment. Islandwide Mobility Concept Plan, page 10. Dedicated Ramps provide direct access to and from zipper lanes, busways, and HOV lanes. ...Oahu has an extensive network of
10 freeways ... some physical modifications will help to maintain the effectiveness of the overall system. Also, the expansion of the Zipper Lane ... Interchange improvements and selective widenings will also help to alleviate bottlenecks and improve freeway safety. ... The feasibility of using a zipper lane for the afternoon rush hour out of town is being studied. ... Kamehameha Highway to be widened from two to four lanes from Ka Uka Boulevard to Mililani ... Kunia Road ... plans to extend this widening to Anonui Road in the near future. ... widen Puuloa Road" Islandwide Mobility Concept Plan, page 30, 34, 35

7.6 Community Impacts

The Draft EIS needs a thorough Community Impact Assessment which includes supporting sustainable livable
11 communities; promoting community values and thriving neighborhoods; contributing to general well-being; embracing the concerns of neighborhoods and communities.

Chapter 8 Questions

8.1 Cumulative and Secondary Impacts

Q1. The redevelopment of Kakaako would be much easier if a trolley were built. Therefore it must be included as a
12 secondary impact. "a light rail electric trolley ... would provide the impetus for the redevelopment of Kakaako" Mayor Jeremy Harris State of the City 1998.

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8.2 Social and Economic Impacts

Q1. Will the development of transportation hubs (buses, light and/or heavy rail) lead to greater development near the hubs? Q2. Will the transportation improvements occur faster, keep pace with, or trail the expected growth in population and tourism? Q3. If the improvements exactly matches the growth in population, will the new arrivals pay for the needed infrastructural changes or will the existing residents pay for system improvements that will benefit the new arrivals? Q4. Will the project strengthen communities/ohana or will it divide poor communities for the benefit of richer communities? Q5. Will the building of the Natatorium encourage greater vehicle use? Q6. Will the building of cruise ship berths at or near the Aloha Tower Marketplace encourage more vehicle use? Q7. Will the building parking structures near the proposed cruise ship berths at or near the Aloha Tower Marketplace encourage more vehicle use? Q8. Will "transportation developments spurred retail and residential growth along transit lines and around transit malls"? Q9. Some of the proposed transportation plans are designed to free up valuable waterfront for development. Such development would constitute a secondary or indirect impact to the PUC EIS and to the PUC NEPA right? Q10. Will the desired increase in tourism encourage greater vehicular use?

8.3 Air Quality Impacts

Q1. How will air quality change as a result of secondary growth resulting from the new bus and/or bus/rail system? Q2. How do the Enhanced Bus Alternative and the Commuter-Based Dedicated Bicycle Lane System Alternative compare to the other alternatives?

8.4 Noise Impacts

Q1. Bus stop announcements can be heard at a 1000 feet. Is the City planning to introduce noise pollution to the quiet suburbs and agricultural lands? "increase access to information through audible 'next stop' announcers" Islandwide Mobility Concept Plan, page v. Q2. How do the Enhanced Bus Alternative and the Commuter-Based Dedicated Bicycle Lane System Alternative compare to the other alternatives?

8.5 Water Resources Impacts

Q1. How will water quality change as a result of secondary growth resulting from the new bus and/or bus/rail system? Q2. How do the Enhanced Bus Alternative and the Commuter-Based Dedicated Bicycle Lane System Alternative compare to the other alternatives?

8.6 Aesthetic Impacts

Q1. Are visual impacts afterthoughts or are they part of the planning process? If so, how? Q2. How do the Enhanced Bus Alternative and the Commuter-Based Dedicated Bicycle Lane System Alternative compare to the other alternatives?

8.7 Transportation Impacts

Q1. Will each alternative (the Enhanced Bus Alternative and the Commuter-Based Dedicated Bicycle Lane System) proposed increase/decrease mass transit system gridlock? Q2. How can we adopt transportation policies that will decrease gridlock? Q3. Can the proposed trolley (1998-99) be expanded into the elevated rail transit plan (1992)? Q4. Will privatization of the bus service into one or more separate competing companies (as in done in Queens, New York) help or hinder services on Oahu? Q5. How significant would the use of one-way rush-hour traffic on Dillingham be on congestion? Q6. How significant would the use of one-way rush-hour traffic on Nimitz be on congestion? see Tim Tucker's column in Island Voices (Honolulu Advertiser, May 18, 1999, page A-6). Q7. How significant would Employer Trip Reduction (ETR) Plans be in reducing congestion? Q8. The Draft Environmental Impact Statement may need to include an explanation of the timing for the proposal. Q9. What will the secondary impact be? Q10. If the Zipper Lane has not convinced enough people to carpool, how will each proposal solve that? Q11. The Coast Guard held a meeting regarding the Sand Island Parkway and the Truman-Hobbs Act. The census was that federal money would not be available. Has anything changed? Q12. Is a state highway financed by federal $ part of the City plan? Q13. Is there a reasonable chance that the building of the Sand Island Parkway increase vehicle use? Q14. Is there a reasonable chance that the alteration of the Nimitz Highway increase vehicle use.

8.8 Scoping Impacts

Q1 How can alterations to the Zipper Lane be part of the City Plan when it is totally under State control? Q2. Does the PUC plan include Express Buses which operate partially outside of the PUC? Q3. The map of the PUC includes Waiawa and Iroquois Point but not Kahala Mall. Is that correct? Q4. How can the MIS analyze "high-speed express service from suburbs" if that is beyond the scope of the PUC? Q5. How can the contractor for the City state that the City plan includes three state programs, one of which is enforcement? "Specific elements include ... AHI ... ITS ... enforcement activities in State DOT's Safe Communities program." Islandwide Mobility Concept Plan, page v. Q6. What are the acceptance criteria of the FHWA/FTA for the NEPA document? Does this plan conform to State DOT plans? Q7. Inclusion of the ideas generated from the 21st Century Vision, Oahu Trans 2K, and related scoping meetings. Q8. Explanation of how ideas were filtered from the meetings to determination inclusion/exclusion from the proposal. Q9. Explanation of how the weight of different proposals was determined. Q10. The baseline plans for rail/trolley must be included, at least in the appendix.

8.9 Transportation Model Impacts

Q1. Which Travel Forecast models are used? Why? Q2. How sensitive are the models to changes in input? Which variables have the highest elasticity (smallest change in output, largest change in output, greatest chance the "desired plan" is the wrong plan)?

8.10 Community Impacts

Q1 How will the residential and business communities be affected by the building and operation of buses/rails traveling through their communities? Q2. Will the need for new transmission facilities result in commercialization of poorer neighborhoods (Economic Justice)? Q3. This following statement is a positive statement about rural lifestyles, right?? "Even something relatively simple like having streets without sidewalks can affect community character." Islandwide Mobility Concept Plan, page v. Q4. Can the public participate in the Draft/Final MIS?

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8.11 Population Impacts

43 | Q1. What are the source of the growth projections? Q2. If the purpose of the Second City was to move people out of
44 | downtown, why are we trying to move more people into downtown?

8.12 Energy Impacts

45 | Q1. Shouldn't any project which would require new overhead lines automatically be rejected? Q2. Can electric buses be used?

8.13 Funding Impacts

46 | Q1 Does the amount of federal matching funds vary depending on the option chosen? Please elaborate.

8.14 Sustainability Impacts

47 | Q1. How do you define "sustainability"? "This Mobility Concept plan ... is not only sustainable over the long run, but absolutely necessary to shape an economically robust future for Oahu." Islandwide Mobility Concept Plan, page iv.

Mahalo for this opportunity to comment on this EISPN.

Henry Curtis

Henry Curtis
Executive Director
Life of the Land

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DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD5/99-02555R

August 16, 2000

Mr. Henry Curtis, Executive Director
Life of the Land
1111 Bishop Street, Suite 503
Honolulu, Hawaii 96813

Dear Mr. Curtis:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 22, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided:

1. Chapter 2 discusses the full range of alternatives that have been considered. The build alternatives incorporate the use of bus priority lanes. They also include implementation of the State and County bicycle master plans. A bicycle lane alternative would not satisfy all of the travel markets and growth in travel demand that is expected through the year 2025.
2. Chapter 2 discusses the full range of alternatives that have been considered. The TSM and BRT Alternatives enhance bus and automobile efficiency to varying degrees. The features you suggest are included in the TSM and BRT Alternatives. Headways are described for each alternative in Chapter 2.
3. HOV enforcement is increasing.
4. Both SDOT and DTS have developed master plans to enhance the network of bicycle facilities and increase bicycling as a serious transportation mode for some travel markets. Improvement of bicycle facilities is included in all of the alternatives. However, bicycles alone cannot accommodate the existing and projected travel demand, and are not appropriate for all travel markets. The TSM and BRT Alternatives are multimodal alternatives that increase pedestrian, bicycle and disabled access to transit and other alternative modes.

5. The project planning was based on assumptions about future growth, as detailed in Chapter 4, which discusses the traffic modeling.
6. Impacts are discussed in Chapter 4 and 5, and are summarized in the Executive Summary.
7. Cumulative impacts are addressed in Section 5.13.1.
8. Air quality impacts are discussed in Section 5.5. Cumulative impacts are discussed in Section 5.13.1.
9. Water resource issues are addressed in Section 5.8. Cumulative issues are addressed in Section 5.13.1.
10. This document describes three reasonable transportation alternatives. The City Council will consider various factors in selecting the Locally Preferred Alternative (LPA).
11. Sections 3.3 and 5.3 discuss the communities in the Primary Urban Center (PUC) and how they may be affected by the project.
12. Section 5.1 discusses redevelopment potential for Kakaako and other areas.
13. One of the purposes of transit is to focus growth by encouraging increased density. Total growth would be constant across all alternatives. The project schedule is provided in Section 2.5.
14. The financing plans for the alternatives are described in Chapter 6. Financing comes from a variety of sources, including federal and State grants, user fees, and proceeds from municipal bonds.
15. Potential impacts on communities are addressed in Sections 3.3 and 5.3, and also in Section 5.13.
16. Future levels of travel activity have been predicted based on accepted government projections that included the development projects you named.
17. Redevelopment of waterfront areas is not included in the alternatives discussed.
18. Yes. Predictions of future travel activity levels included assumptions about increases in tourism and other economic activities.
19. The following sections describe various types of impacts: Section 5.5 discusses air quality impacts, Section 5.6 discusses noise impacts, Section 5.8 discusses water quality, and Section 5.4 discusses visual impacts. The Enhanced Bus Alternative is similar to the TSM Alternative.
20. Potential noise impacts are addressed in Section 5.6.
21. The visual environment and potential impacts are addressed in Sections 3.4 and 5.4.
22. Chapter 4 discusses the potential traffic impacts of each of the proposed alternatives, including vehicle hours of delay (VHD). The project itself is intended to help alleviate the traffic problems of the island, especially in the PUC. Increasing the people-carrying capacity of existing roadway lanes is a policy that would reduce gridlock.
23. A fully grade-separated transit system was considered but rejected, as discussed in Section 2.6.

24. Privatization speaks to how bus service is provided, not the level of bus service, per se. Privatization alone would not be expected to affect levels of roadway congestion. However, the TSM and BRT Alternatives provide for the privatization of selected bus services.
25. The commercial uses along Nimitz Highway and Dillingham Boulevard require two-directional vehicular access. If these roads were converted to one-way access, the circuitous routes that would be required would increase regional levels of congestion.
26. These and other Transportation Demand Management (TDM) measures are included in all of the alternatives.
27. Section 2.5 discusses the project timeline.
28. By rewarding people with travel time savings, parking discounts, and subsidized vehicles, programs such as Vanpool are expected to induce ridesharing. The intent of the zipper lane is also to reward people who rideshare with travel time savings. We hope that the travel time savings will induce people to use the zipper lane.
29. The Sand Island analysis has been shifted to the Oahu Regional Transportation Plan (ORTP).
30. Once the City Council selects the LPA, the State and the City will work together to implement the different elements of the preferred alternative.
31. The Sand Island analysis has been shifted to the ORTP.
32. Yes.
33. The analysis of future travel demand and existing infrastructure capacity indicates that the major shortfall in transportation capacity extends from the PUC to the Ewa area.
34. The PUC is so important in terms of islandwide trip generation and trip attraction that transportation planning for the PUC cannot be limited to only the PUC. Connections between the PUC and other parts of the island must also be considered.
35. The acceptance criteria are described in various rules, regulations, and guidances. Plan conformance is addressed in Section 5.1.3.
36. The Oahu Trans 2K meetings have been summarized and those summaries are included in Appendix A. Chapter 2 discusses how these ideas were screened and utilized.
37. The evaluation of the alternatives is provided in Chapter 7.
38. Rail is not an alternative considered under this Major Investment Study/Draft Environmental Impact Statement. The alternatives are described in Chapter 2. Conceptual plans are provided in Appendix B.
39. Potential impacts on communities are addressed in Sections 3.3 and 5.3, and also in Section 5.13.
40. Environmental justice issues are addressed in Section 5.3.5.
41. The statement is neither positive nor negative.
42. Appendix A summarizes the efforts that have been made to provide opportunities for public participation.

43. As described in Chapter 1, Section 3.1, and Section 4.2.5, the Department of Business, Economic Development, and Tourism (DBEDT) is the source of the growth projections.
44. The project does both. The project will improve transportation connections between Downtown and Kapolei. It is both State and City policy to direct growth to both cities.
45. No overhead lines would be required under any of the alternatives. The BRT Alternative includes the use of electric vehicles.
46. Yes, different federal funding lines have different restrictions, as described in Chapter 6.
47. There are many definitions, but applying that to a transportation project means saving energy and encouraging compact land use development patterns.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

AR00016254

May 3, 1999

City and County of Honolulu
Department of Transportation Services
711 Kapiolani Blvd., Suite 1200
Honolulu HI 96813

Attn: Kenneth Hamayasu

Dear Mr. Hamayasu:

Subject: EISPN for Honolulu Primary Transportation Corridor Improvements

In response to the notice of preparation of an EIS that appeared in the April 23, 1999, Environmental Notice, I have the following comments.

In developing plans for transportation improvements, I believe the following should be taken into account:

1 | 1) Scenic viewplanes;
2 | 2) Whether the improvements will encourage or discourage urban sprawl and encroachments into rural areas;
3 | 3) Emissions produced by the various options;
4 | 4) Whether the improvements will encourage more vehicular traffic (as, say, road improvements tend to do) or will discourage use of automobiles for commuting.

Thank you for your attention to my concerns.

Sincerely,

Patricia Tummons

Patricia Tummons

187-C Holulani Street
Hilo HI 96720

RECEIVED
'99 MAY 5 P12:52

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
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CHERYL D. SOON
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JOSEPH M. MAGALOI, JR.
DEPUTY DIRECTOR

TPD5/99-02206R

August 16, 2000

Ms. Patricia Tummons
187-C Hokulani Street
Hilo, Hawaii 96720

Dear Ms. Tummons:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 3, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. The visual environment and potential impacts on scenic viewplanes are addressed in Sections 3.4 and 5.4.
2. Potential impacts on communities are addressed in Sections 5.3 and 5.13.
3. Air quality impacts are discussed in Section 5.5.
4. Chapter 4 discusses traffic modeling.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

Douglas Meller
2749 Rooke Avenue
Honolulu, HI 96817

email: meller@hgea.org

May 24, 1999

Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard Suite 1200
Honolulu, Hawaii 96813

Subject: Primary Corridor Transportation Project
Environmental Impact Statement (EIS) Preparation
Notice

Dear Mrs. Soon:

These are personal comments. They have not been encouraged, reviewed, or approved by my employer.

I request that the Draft EIS consider the following alternatives:

1. Eliminating bus stops to improve bus operating speeds. (It is inefficient to have bus stops a few hundred feet apart.)

2. Chartering and/or subsidizing private buses and ferries for peak period transit. (The City's current private bus charters and the State DOT's proposed ferry demonstration project will provide useful data.)

3. Regulating public and private parking charges to encourage car-pooling and use of public transit. (Other cities regulate parking charges to reduce traffic.)

4. Providing light rail and/or bus rapid transit without a Sand Island Bypass. (Because of cost and impacts, decisions about a Sand Island Bypass should be "uncoupled" from decisions on transit alternatives.)

I also request that the Draft EIS compare the various alternatives in terms of the following impacts:

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1. peak and off-peak transit/bus travel time between several screenlines.
2. peak and off-peak private vehicle travel time between several screenlines.
3. peak and daily vehicle trips across several screenlines.
4. peak and daily person-trips across several screenlines.
5. per cent of Oahu voters who will ride public transit.

Sincerely,

Doug Meller

Douglas Meller

cc: Office of Environmental Quality Control

a:\PCOR1

AR00016257

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
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JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 16, 2000

TPD5/99-02583R

Mr. Douglas Meller
2749 Rooke Avenue
Honolulu, Hawaii 96817

Dear Mr. Meller:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated May 24, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided:

1. All alternatives and the proposed stops are described in Chapter 2. Both the City Express! and the Country Express! Services are limited-stop bus services, and more limited stop services will be provided under the Transportation System Management (TSM) and Bus Rapid Transit (BRT) Alternatives.
2. All alternatives are discussed in detail in Chapter 2. The TSM and BRT Alternatives include incentives for HOV vehicles (carpooling), and other measures to enhance the operational efficiency of the existing transportation network including private sector transit services (using unused equipment and capacity).
3. Project alternatives are defined in Chapter 2. At this point, regulation of parking fees are not included in the alternatives that received detailed analysis in the MIS/DEIS.
4. The Sand Island analysis has been shifted to the Oahu Regional Transportation Plan.

5. Chapter 4 discusses traffic modeling.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

DECISION ANALYSTS HAWAII, INC.
BRUCE STEVEN PLASCH, President

QUANTITATIVE CONSULTING SERVICES: Economic • Financial • Demographic • Statistical

JUN - 9

June 8, 1999

Ms. Cheryl Soon, Director
Department of Transportation Services
CITY & COUNTY OF HONOLULU
711 Kapiolani Boulevard
Honolulu, HI 96813

Re: "O'ahu Transit 2K, Islandwide Mobility Concept Plan"

Dear Cheryl:

I am sending the following suggestions and comments on "O'ahu Transit 2K, Islandwide Mobility Concept Plan" in response to a recent presentation by the Parsons Brinckerhoff/Carter & Burgess Team to the Land Use and Transportation Committee of the Chamber of Commerce.

For the most part, this is an excellent and informative document. However, some of the assertions which are made to support arguments are inaccurate or overstate the situation, thereby undermining the credibility of the report and the overall planning effort. My comments focus on the shortcomings within the document, rather than on the "good" parts. As such, these critical comments and suggested additions do not reflect my overall impression of the document, which is favorable.

Many of my comments address assertions made in the Concept Plan about the economic, social, and environmental costs of sprawl and our reliance on automobiles. While I am not advocating an increased reliance on automobiles or increased sprawl, it is important, for the sake of good planning, to prevent half-truths and fiction from becoming accepted as fact.

- Definition of "Sprawl"

  In view of the extensive use of the term "sprawl" in the report, a clear definition of it is in order. For example, is Mililani an example of suburban sprawl which should be discouraged, or is it the type of compact development which should be encouraged? 1

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- Sprawl vs. Centralized Development

  On page 2, the observation that "widespread urban and suburban sprawl" seems to be contradicted by the more accurate statement on page 9, "O'ahu's development pattern is highly centralized." This compactness is the result of deliberate land-use policies originated in the 1960s and 1970s—policies which were designed to protect the lands farmed by O'ahu Sugar Co., Ltd., limit growth in rural communities, and protect environmentally sensitive areas. 2

- Benefits and Costs of Sprawl vs. Compact Development

  The discussions in various sections on the benefits and costs of sprawl versus compact development present only one side of an ongoing and as-yet-unresolved debate. A cogent summary of the issues is provided by Dowell Myers and Alicia Kitsue, "The Debate Over Future Density of Development: An Interpretive Review," 1999. This paper can be downloaded from the Lincoln Institute (www.lincolninst.edu). 3

  Also, much of this discussion seems academic in that many key development decisions have already been made by the City and the State.

- Economic Decline of Commercial Areas

  On page 2, the following statement is made: "The economic patterns generated by automobile dependence contributes [sic] to the decline of neighborhood retail and office districts and the small businesses that formerly thrived in them." Which communities have suffered a decline because of dependence on the automobile? If, from page 10, Kaimuki is the example, I disagree; local businesses adjusted to the development of the H-1, and the area exhibits considerable economic health. 4

- Development and Service Costs

  The statement on page 2 that "sprawl has resulted in extremely high costs to provide streets, utilities, schools, parks, police and fire protection, and other services to a far-flung population." While this is true, two comments are in order. First, *suburban* development of densities significantly higher than the housing densities which are selling in 'Ewa and Central O'ahu risk rejection by potential homebuyers.

  Second, as a general rule, the overall cost of suburban development falls between the costs of urban in-fill and urban redevelopment. 5

  In-fill development is generally the least expensive form of development, provided that: large vacant parcels are available in sufficient size to allow economies of scale, the terrain is relatively level, soils can accommodate foundations, access is adequate, existing infrastructure is relatively new and has excess capacity, restrictive building practices will not be imposed (e.g., restricted hours to protect neighbors from noise), etc. Based on my work, the supply of such land within the Primary Urban Center (PUC) is quite limited.

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On the other hand, redevelopment within the PUC can be quite expensive, particularly when: a premium must be paid to assemble small parcels, usable structures must be purchased then torn down and removed, infrastructure must be replaced due to age and/or inadequate capacity, and construction practices must minimize adverse impacts to neighbors.

5

- **Infrastructure Financing**

On page 8, it is stated that older established neighborhoods must subsidize the high cost of infrastructure development in outlying (i.e., suburban) areas because "...sprawl does not support itself through the additional [tax] revenue it generates..."

To the best of my knowledge, no in-depth study exists to support this claim. The studies which do exist are for mainland communities, the findings of which cannot be safely generalized to Hawai'i because of different financing approaches and tax structures.

Furthermore, the argument is open to challenge based on the fact that developers in 'Ewa and Central O'ahu, and in turn new home buyers, are financing most of the required infrastructure development—either directly or through various charges. In addition, the State receives the equivalent of a large up-front exaction in the form of excise taxes on the sales of homes and on construction expenditures. Also, much of the City's CIP funding has been for projects in *established* neighborhoods and for projects which serve residents islandwide. Although my findings on this subject are limited somewhat by data shortcomings, they are summarized in "Cost to Government of Supporting New Development in 'Ewa and Central O'ahu," May 1995, which is on file with the City.

6

- **City Policy on Urbanizing Agricultural Lands**

The statements on pages 8 and 13 regarding the need to protect prime agricultural land from residential sprawl appears hypocritical in view of recent City actions. Past government policy has been to direct development to the marginal agricultural lands in 'Ewa while protecting 'Ewa's "Golden Triangle," which encompasses some of the best farm land in the State. Rather than continuing the policy of protecting this prime agricultural land, the City's most recent Development Plan for 'Ewa supports urbanizing this land.

7

- **Economic and Environmental Costs of Urbanizing Agricultural Lands**

On page 8, the following statement is made: "If left unchallenged, this trend towards 'residential sprawl' [onto agricultural lands] could create serious economic and environmental problems."

While prime agricultural land should be protected, the reality is that urbanization of agricultural land results in a relatively small economic loss for two reasons. First, ample land is available for agriculture due to the enormous contraction of plantation agriculture—even with extensive urbanization, the supply of agricultural land would

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still exceed the demand. Second, per acre returns and employment from agriculture are small compared to most urban uses of land.

Furthermore, farming is not free of adverse environmental impacts. Typically, suburban development of farm land results in less pollution, not more.

- **Factors Affecting Suburban Growth**

The fifth paragraph on page 9 attributes growth in Central, Windward, and East O'ahu "...at least partially to transportation policies that favored the automobile over other forms of transportation." To be fair, growth in these areas also reflected deliberate State and City development policies from the 1960s to the present, as well as strong consumer preferences for single-family homes.

9

- **Credit for Affordable Housing**

On page 10, the following statement is made: "Due to prior government policies, most new affordable for-sale housing is found in 'Ewa and Central O'ahu." The second part of this sentence would have been true even without government intervention. Lower housing prices are required to attract a large number of new home buyers in outlying areas which typically lack the full complement of jobs, stores, services, recreational opportunities, etc. However, government intervention did change the *mix* of housing in 'Ewa and Central O'ahu, but this change in mix occurred at the cost of slowing development of these projects and increasing the price of market housing islandwide.

- **Strategy for the PUC**

On page 10, a statement is made to the effect that approximately 44,000 new homes will have to be developed in the PUC over the next 20 years (about 2,200 new homes per year). This number of new homes within the PUC, plus homes to replace those which will be lost to redevelopment, appears somewhat high for the following reasons:

- — O'ahu has yet to break out of its anemic economic growth
- — The PUC appears to lack sufficient vacant land that is suitable for substantial new development.
- — Redevelopment will be slow and costly, and is likely to be opposed by many residents in the affected communities.

10

Regardless of the number of homes planned for development in the PUC, many neighborhoods are in very poor condition and should be redeveloped. The challenge will be to redevelop to higher densities with attractive projects that preserve ocean and mountain views; this has not been the case with a great many past projects.

- **Land-Use Implications**

The document correctly argues that transportation has had a profound impact on the form and type of development on O'ahu. Presumably, the analysis of transporta-

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tion alternatives will address the likely impacts on future development patterns, including impacts on both residential development and job creation in the PUC and outlying areas. Depending upon the transportation alternative selected, increased mobility could accelerate residential development in outlying areas while concentrating job creation in the PUC, thereby thwarting the balanced development planned for 'Ewa. 12

Along these same lines, it should be made very clear to residents that they are choosing far more than a transportation system: they are also choosing a related land-use development scheme. Such clarification is particularly important for those communities which will experience extensive changes, possibly because they are to be redeveloped to higher densities.

- **Implementation of the Plan**

As the consulting team is surely aware, it is important to go beyond the desires of the community to dispassionately and realistically assess what can actually be implemented successfully. For example, major components of land-use and transportation plans from the 1960s, 1970s, and 1980s were eventually abandoned or reversed as a result of changing values, unacceptable costs, market rejection, and/or community opposition—thereby contributing to some of today's problems. Examples of government plans which were ultimately rejected or reversed include:

- — land use plans to direct residential, resort and commercial development to East Honolulu, Windward O'ahu, the North Shore and Wai'anae in order to preserve low-rise development in the PUC and to protect agricultural lands in 'Ewa and Central O'ahu; 12
- — redevelopment of the PUC with low-rise garden apartments so as to protect rural communities and prime agricultural lands;
- — development of the marginal agricultural lands in 'Ewa while protecting the prime agricultural lands;
- — a second cross-town freeway;
- — a highway around Kaena Point; and
- — a mass transit system.

- **Implications of Computers and Electronic Communications**

Continuing rapid advances in computers and electronic communications are likely to have significant and possibly profound implications on travel and development patterns. Regardless of location, current technology allows near instantaneous exchanges of documents, inexpensive video conferencing, access to research materials, etc. As a result, many workers are being freed from spending long hours in town, and so may choose to live in suburban and rural communities. 13

The implications of how this technology will affect travel and development patterns should be addressed.

- **Extensive Network of Freeways**

For accuracy, the statement on page 34 regarding the existence of an extensive network of freeways should be written to include highways. Most people would not regard three freeways as an "extensive network." 14

- **Benefits and Costs of Automobile Travel**

On pages 2 and 3, the material on the benefits and costs of automobiles comes across as biased, since it recognizes the high costs associated with automobiles but does not acknowledge the many personal benefits which may justify the high costs, such as: faster door-to-door travel, travel to destinations not served by transit systems, fast and convenient travel to multiple destinations, the ability to transport large items safely (e.g., groceries and recreational equipment on weekends), etc. Personal time saved and increased mobility can translate into a more productive workforce. 15

A balanced transportation plan must take into account the benefits and the costs of various alternatives, not just the cost of one and the benefits of another.

- **Area Required for Home-Based Vehicles**

On page 11, it is stated that 350 square feet are required to accommodate each home-based vehicle, for a total of 2,800 acres of space needed for all the home-based vehicles in the PUC.

The requirement of 350 square feet per automobile corresponds to a two-car garage for each vehicle. Is this correct? Is this based on one parking space at home and a second one at a destination? 16

Even if this figure is correct, it should be made clear that the 2,800 acres of space does not correspond to 2,800 acres of land used only for parking. Because of shared use, the effective land area is much smaller. For example, many homes have rooms or decks over garages, and many parking structures feature multiple stories.

- **Marginal vs. Sunk Costs Associated with Automobile Travel**

Because of their many benefits, most families will choose to own one or more automobiles. Once ownership occurs, many of the costs associated with car ownership are "sunk" costs which will have no bearing on the decision to commute to work by car or by some other mode of transportation because they must be paid regardless. Sunk costs include the cost of the car itself, automobile insurance, the cost of the home garage, the cost of roads, etc. These last two costs occur even without automobile ownership. 17

The automobile costs which affect one's choice of transportation mode are the much lower marginal costs, including the dollar cost of fuel and parking, and the time cost of door-to-door travel.

The analysis should address both the total costs and the marginal costs of the various transportation alternatives.

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- Unused Equipment and Capacity

  Greater effort should be expended on using Honolulu's unused transportation equipment and capacity to help resolve transportation problems. This might include some of the tourist buses and vans which go unused during peak commuter periods, particularly in the early morning. 18

  Also, most cars travel during rush hour with three empty seats. Theoretically, capacity exists for over a three-fold increase in the number of commuters with no increase in the number of automobiles on the road.

- Road Pricing

  Highway capacity is a scarce resource which, in congested areas, is allocated to those commuters willing to suffer travel delays while other commuters adjust their schedules to travel before or after rush hour in order to avoid the delays.

  Like other scarce resources, most economists would argue that sensible road pricing during rush hour would be a better approach to allocating scarce highway capacity. The objective would be to maintain a good flow of traffic at all times by providing an *economic* incentive designed to induce commuters to (1) double up, thereby reducing the cost to these commuters while also reducing the number of cars on the road; (2) travel by express bus; (3) avoid the trip by using electronic communications; (4) travel at a different time; etc. Such an economic solution, in combination with other transportation alternatives, may be more effective and far less expensive than a purely engineering solution. 19

  This alternative should be presented, along with an honest assessment of its merits. The challenge will be to design an approach that is *politically* acceptable because it works better than other alternatives, and is regarded as fair.

I hope that these comments are helpful.

Yours truly,

Bruce

Bruce S. Plasch
President

cc: R. Bramen, Parsons Brinckerhoff/Carter & Burgess Team
D. Bunda, Leeward Oahu Transportation Management Association

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JEREMY HARRIS
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CHERYL D. SOON
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JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD6/99-02858R

August 16, 2000

Mr. Bruce S. Plasch, President
Decisions Analysis Hawaii, Inc.
1655 Kamole Street
Honolulu, Hawaii 96821

Dear Mr. Plasch:

Subject: Primary Corridor Transportation Project

Thank you for your letter dated June 8, 1999, regarding the Environmental Impact Statement (EIS) Preparation Notice, Primary Corridor Transportation Project.

Your comments are appreciated and will be included in the Major Investment Study/Draft Environmental Impact Statement. Enclosed is a copy of your written comments, which have been numbered. The following responses to your comments are provided.

1. Sprawl typically means land-intensive, low-density, single-family, unattached, residential developments that are located far from employment centers.
2. The current land use patterns on Oahu contain elements of both sprawl and centralized development. There is no contradiction.
3. If present patterns of sprawl continue, Oahu's open green spaces would all be converted to low-density residential developments. Therefore, in order to keep the country country, more compact forms of land development are necessary.
4. Socio-economic data is provided in Section 3.3. Comment noted.
5. Higher density developments can be affordable and attractive, as has been demonstrated many times on the mainland and throughout the world. Oahu is not large enough to accommodate unconstrained growth, while still preserving the natural values treasured by residents and visitors.
6. The outreach conducted for this project demonstrated widespread public support for the preservation of Oahu's natural values, which can occur only if sprawl is contained.
7. It is the desire to preserve prime agricultural lands that motivates the City to try to focus growth in designated areas such as Kapolei. If growth can be focused at Oahu's first and second cities, substantial prime agricultural land will remain on Oahu.
8. Continued agriculture on Oahu is part of the vision for the island articulated by the public in the Oahu Trans 2K outreach process.
9. The City is working with the State to develop consistent policies and investments that encourage concentrating growth in Oahu's first and second cities.

10. The vision for the PUC is being developed through the PUC DP update process now underway.
11. Sections 3.1 and 5.1 discuss the land use implications of the proposed project.
12. Section 2.5 provides the implementation schedule, and Chapter 6 provides the financing methods for all alternatives.
13. Experience to date has not shown a substantial impact of telecommunications on travel demand on Oahu.
14. Section 3.2 describes the existing transportation network in the study area.
15. The elements of benefits and costs, that are included in the cost-benefit analysis, are defined in Chapter 7. There are benefits and costs of automobile and transit travel that are not included in the cost-benefit analysis. There are multiple criteria upon which to evaluate the alternatives, and combining them all into a quantitative cost-benefit analysis is not appropriate.
16. Parking spaces per automobile typically range from 300 to 400 square feet, according to the Urban Land Institute and the National Parking Association's The Dimensions of Parking.
17. It is agreed that these costs should be recognized. However, continuing policies that facilitate automobile travel benefit only one segment of the population and have impacts on society at large and the environment that need to be considered.
18. Project alternatives are discussed in detail in Chapter 2. The TSM and BRT Alternatives include incentives for HOV vehicles (carpooling), and other measures to enhance the operational efficiency of the existing transportation network including private sector transit services (using unused equipment and capacity).
19. Transportation Demand Management (TDM) programs are included in the alternatives, but are not expected to address projected increases in travel demand fully in the primary transportation corridor. The advantages of efficient transit would encourage people to use their cars less. The use of specific disincentives and education programs on alternative transportation is a policy decision to be made by the City Council.

Should you have any questions regarding the project, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosure

cc: Parsons Brinckerhoff Quade & Douglas, Inc.

AR00016263

A copy of the following August 21, 2000 letter from the Department of Transportation Services to participants at the May 11, 1999 scoping meeting letter was sent to the following on August 22, 2000:

Mr. W. K. Luke
1848 Puowaina Drive, Suite F
Honolulu, Hawaii 96813-1706

Ms. Darrlyn Bunda
95-1523 Ainamakua St., #95
Mililani, Hawaii 96789

Ms. Linda Starr
Kuiloulu/Kalani Iki N.B. No. 2
P.O. Box 240310
Honolulu, Hawaii 96824

Mr. Dick Poirier
95-584 Naholoholo Street
Mililani, Hawaii 96789

Mr. Clifton Takamura
2249 Date Street, #3
Honolulu, Hawaii 96826

Mr. Richard Port
1600 Ala Moana Boulevard, #3100
Honolulu, Hawaii 96815

Mr. Jim Yamamoto
R.M. Towill Corp.
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817

Ms. Michelle Matson
3230 Collins Street
Honolulu, Hawaii 96815

Ms. Mary Steiner
The Outdoor Circle
1314 S. King Street, Suite 306
Honolulu, Hawaii 96814

Mr. Wendell Lum
45-135 Lilipuna Road
Kaneohe, Hawaii 96744

Ms. Shannon Wood
P.O. Box 1013
Kailua, Hawaii 96734

Ms. Lynne Malusow
60 N. Beretania Street, #1804
Honolulu, Hawaii 96817

Ms. Pamela Young
P.O. Box 4444
Honolulu, Hawaii 96812

Mr. Richard Quinn
1133 Waimanu Street, #1104
Honolulu, Hawaii 96814

Ms. Christen Mitchell
3071 Pualei Circle, #104
Honolulu, Hawaii 96815

Mr. William Rosa
3578 Alohea Avenue
Honolulu, Hawaii 96816-2261

Mr. Todd Boulanger
Na Kama Hele
P.O. Box 22424
Honolulu, Hawaii 96823-2424

Mr. Brian Yoshida
Moanalua Valley Community Association
1425 Ala Aolani Street
Honolulu, Hawaii 96819

Mr. Donald Lubitz
P.O. Box 418
Honolulu, Hawaii 96809-0418

Mr. Milton Ragsdale
2426 Armstrong Street
Honolulu, Hawaii 96822

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD00-00414

August 21, 2000

Dear Participant:

Subject: Primary Corridor Transportation Project

On May 11, 1999, you participated in a public scoping meeting on the Primary Corridor Transportation Project at Washington Middle School. The function of the scoping meeting was to invite public comment on the purpose of and need for the project, the alternatives under consideration and the environmental studies to be conducted.

The oral and written comments we received that evening or shortly thereafter are summarized in the attached table along with responses to the issues raised. Many of the responses reference further information that is provided in the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) for the project, which will be released shortly. Your comments were important input to the development of the MIS/DEIS.

The MIS/DEIS document will be available for your review at various libaries and at the Department of Transportation Services after August 23, 2000. Should you have comments on the MIS/DEIS, please submit them by November 6, 2000.

Thank you for working with us to develop transportation solutions for our island. Should you have any questions regarding the Primary Corridor Transportation Project, please contact Faith Miyamoto at (808) 527-6976.

Sincerely,

CHERYL D. SOON
Director

Attachment

AR00016264

SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS

Name and Organization	Comment	Response
Darrlyn Bunda, Leeward Oahu Transportation Management Association	Favored extending the LRT alignment to Waiawa Interchange.	The BRT Alternative, which has since replaced the LRT Alternative, has an In-Town component that goes as far as the Middle Street Interchange. There is an additional Regional BRT component that would service riders as far as Ewa/Kapolei.
	Waiawa Interchange needs to be reconfigured to serve buses/HOVs and to provide better access to the community, such as Leeward Community College.	Under the BRT Alternative, H-1 around the Waiawa Interchange would be widened and improved with a PM zipper lane. Section 2.2.3 discusses this and other improvements to the existing freeway system in detail.
Todd Boulanger, Na Kama Hele	Requested analysis of how the alternatives integrate bicycling and pedestrian trips.	Both SDOT and DTS have developed master plans to enhance the network of bicycle facilities and increase bicycling as a serious transportation mode for some travel markets. Improvement of bicycle facilities is included in all of the alternatives, although the BRT Alternative would do the most to improve bicycle facilities. However, pedestrians and bikes alone cannot satisfy all of the travel markets that must be accommodated. Chapter 1 discusses the project's purposes and needs, which include making the PUC more pedestrian friendly, and Chapter 4 discusses all modes of transportation. Investments in transit systems promote the pedestrian and bicycles modes as viable modes of travel. DTS will also continue to support programs to foster alternative transportation, such as the hub-and-spoke bus system and traffic calming, and Vanpool.
	Requested consideration of biking as a low cost area circulator.	Both SDOT and DTS have developed master plans to enhance the network of bicycle facilities and increase bicycling as a serious transportation mode for some travel markets. Improvement of bicycle facilities is included in all of the alternatives. Pedestrians and bikes are very much a part of the TSM and BRT Alternatives, but they alone cannot satisfy all of the travel markets that must be accommodated.
	Requested analysis of bikes and pedestrian access impacts along certain corridors, such as the tunnel, King Street and Kapiolani Boulevard.	Bicycle and pedestrian access is described in Sections 4.5 and 4.6.
	Requested analysis of impacts to the safety of pedestrians and cyclists from articulated buses as opposed to shorter or double deck buses.	Bicycle and pedestrian access is described in Sections 4.5 and 4.6.
	Questioned predicted reduction of regional vehicle miles traveled (VMT) from the project.	Extensive traffic modeling was done as part of the planning process. See Chapter 4 for details.
	Requested that disincentives to driving (e.g., road pricing, etc.) be included as alternatives, as well as measures to make walking as the preferred mode within the city.	Travel Demand Management (TDM) programs are included in the alternatives, but they are not expected to fully address projected increases in travel demand in the primary transportation corridor. Improved transit service would encourage people to use their cars less. The use of specific travel disincentives is a policy decision to be made by the City Council.

SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS (CONTINUED)

Name and Organization	Comment	Response
Todd Boulanger, Na Kama Hele	Requested analysis of air and water quality impacts.	Impacts to air quality and water quality are discussed in Sections 5.5 and 5.8, respectively.
	Requested analysis of the socio-economic and environmental impacts on poor families having to depend on automobiles for their transportation.	Environmental justice issues are addressed in Section 5.3.
	Requested that the project conducts a more extensive and diverse public outreach program for scoping, and gave suggestions on how this can be accomplished.	Appendix A summarizes the efforts that have been made to provide opportunities for public participation. Comments from the public are welcome at any point. However, to be part of the official record, comments on the Draft EIS need to be made by the close of the comment period on the Draft EIS.
	Requested analysis of how bus fare increases affect future ridership, road congestion, land use, pollution, parking demand and the success the alternatives.	Financial plans are discussed in Chapter 6, and travel demand is discussed in Chapter 4.
Donald Lubitz	Suggested that right-of-way or corridor be reserved now in anticipation that an expanded transit system would be needed in the future.	Because of existing development patterns in the PUC, the rights-of-way of future transportation systems are primarily the existing transportation rights-of-way. This is why the need is to increase people-carrying capacity within the existing transportation rights-of-way.
	Suggested that the City transit system be used to support education programs for visitors and residents (e.g., provide transportation to education sites).	The PCTP would serve several travel markets, including students and visitors.
W-K Luke	Requested that public places of the project (e.g., transit centers) include amenities for socializing, and cultural elements consistent with area (e.g., Chinatown).	Transit centers and other public spaces included in the project would be designed to be pedestrian-friendly and contribute to a sense of community. Transit centers and stops in special districts such as Chinatown would be designed to blend in and enhance the existing cultural setting.
	Requested spot improvements to improve bus service.	Refinements to the existing bus system are made on an ongoing basis as the need arises.
Wendell Lum	Requested cost and funding information and analysis of impacts to the economy.	A financial analysis is provided in Chapter 6. Impacts on the economy are discussed in Section 5.1.
	Suggested that transportation investment be in the Central and Leeward areas where residential growth is occurring.	Transportation investments will be made throughout the primary transportation corridor. These investments are intended to help facilitate growth in Ewa and the PUC.
Christen Mitchell	As part of the No-Build, suggested a mixed-use land use pattern, and a continuous bikeway through the corridor.	The transportation improvements contained in the No-Build Alternative would do less than the other alternatives to help foster a mixed land use pattern. The transportation improvements in the No-Build would encourage continued suburbanization and loss of open space. The bicycle facilities in the existing State and County Bicycle Master Plans are included in the No-Build Alternative.
	Suggested private-public partnerships for mixed-use development at transit stations.	There are several ways to encourage "joint development" at transit centers and transit stops. Public-private partnerships are certainly being considered.

AR00016265

SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS (CONTINUED)

Name and Organization	Comment	Response
Christen Mitchell	Requested analysis of transportation malls' impact on the surrounding community, pedestrian access, safety and crime, and landscaping.	The social impacts of the project on the neighborhoods is discussed Section 5.3. Pedestrian access issues are addressed in Section 4.6. Landscaping issues are addressed in Section 5.7. In general, transit centers and transit stops are intended to help focus growth along the alignment and help develop a pedestrian and transit-oriented setting.
	Criticized advertising for the scoping meeting.	Appendix A summarizes the efforts that have been made to provide opportunities for public participation, including comments from the business community.
	Critical of overhead wires and motorized ferries on the Ala Wai.	Neither overhead lines nor ferries on the Ala Wai are proposed as elements of the PCTP.
Michelle Matson	Requested that potential impacts to businesses be considered in planning the project.	General economic impacts are discussed in Section 5.1. Chapter 4 discusses impacts on parking areas and loading zones.
	Supports Sand Island Bypass and Nimitz Parkway elements of the project for waterfront development.	The Sand Island component of this project is being addressed in the current update to the Regional Transportation Plan. It is not part of this project at the current time.
Lynne Matusow	Requested deleting the LRT and Ala Moana Waterfront Loop elements from the alternatives.	The LRT Alternative has been replaced by the BRT Alternative. The Ala Moana Waterfront Loop is no longer part of the project.
	Suggested a transit system similar to Curitiba, Brazil.	The In-Town BRT system would be a transit system similar to Curitiba, Brazil, adapted to local conditions. The Curitiba situation is in some ways simpler because more space is available to construct new transportation systems.
	Project should consider that certain streets are used for parades and block parties.	The route of the In-Town BRT system would be modified to accommodate special events. This topic is discussed in more detail in Section 4.6.
	Does not favor the use of overhead wires for the LRT.	Overhead lines are not proposed as a part of the PCTP. The LRT Alternative has been replaced by the BRT Alternative.
	Transit improvements should be extended into Waikiki.	The In-Town BRT would extend throughout Waikiki.
Dick Poirier	Supported congestion pricing and other types of user fees, such as charging for accessing the HOV lanes, as a viable alternative.	Travel Demand Management (TDM) programs are included in the alternatives, but they are not expected to fully address projected increases in travel demand in the primary transportation corridor. Improved transit service would encourage people to use their cars less. The use of specific travel disincentives is a policy decision to be made by the City Council.
	Requested the Ewa terminus of LRT Alternative be extended to the Waiawa Interchange area.	The BRT Alternative would accommodate future phased extensions of the system if viable.
	Requested that alternatives for road pricing be studied.	Travel Demand Management (TDM) programs are included in the alternatives, but they are not expected to fully address projected increases in travel demand in the primary transportation corridor. Improved transit service would encourage people to use their cars less. The use of specific travel disincentives is a policy decision to be made by the City Council.

SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS (CONTINUED)

Comment	Response	Comment
Richard Pon	Expressed concern about the cost of the alternatives, noting that revenues do not cover operating costs and that the transit system would compete with private operators.	Methods of financing the construction and operation of the alternatives are discussed in Chapter 6.
	Favors expanding the existing bus system, including use of articulated buses.	All of the alternatives would expand the bus system and use articulated vehicles. They vary by the degree and means that they would use to improve transit service.
Richard Quinn	Suggested decentralized transportation systems geared to individual neighborhoods because advances in technology would result in a greater degree of trips within the neighborhood for working and shopping.	While land use changes that would improve the ability of walking to satisfy more trip purposes are desired, walking alone is not expected to address all of the expected increase in travel demand.
Milton Ragsdale	Suggested new alternatives and modifications to certain elements of proposed alternatives - fixed rail along H-1 median from Pearlridge Shopping Center to Kahala Mall, with a subway from Middle Street Transit Center to Ala Moana, and a BRT connecting University/King Transit Center to Manoa Recreation Center or UH quarry area.	These suggestions would be less cost-effective than the alternatives currently under study. Chapter 2 discusses the evolution of the alternatives that receive detailed assessment.
	All BRTs and LRTs should have space or racks for bicycles.	Bicycles will be accommodated on the BRT vehicles.
William Rosa	Requested bus service be more frequent, and that traffic calming be used in downtown areas.	Chapter 2 describes the frequency of bus services for each of the proposed alternatives. The BRT Alternative would provide the greatest frequency of transit service. Traffic calming would continue to be an option wherever an opportunity for implementation is identified.
Linda Starr, Neighborhood Board #2, Kuliouou Kalani Iki	Does not favor special bus ramps because it would waste resources.	Special bus ramps have been included in the BRT Alternative to decrease travel times for transit patrons.
	Requested studying metering at freeway on ramps.	The Hawaii Department of Transportation has been studying ramp metering.
	Feels that people from Kapolei to Pearlridge would not want to change modes, and that they would want the convenience of riding an express bus into town.	All of the alternatives include selected express routes. Some degree of transfers and model switches would be necessary for the system to work cost-effectively.
Mary Steiner, The Outdoor Circle	Requested clarification on certain elements of the project, such as details of the transit centers, landscape plans, impact to street trees, and project limits.	Project elements are described in Chapter 2. Landscaping and impacts to trees would be minimized to the extent practicable, and are described in Section 5.7. Further details would be developed in subsequent planning after City Council selects an LPA.
	Criticized lack of public participation.	Appendix A details the extent of efforts made to solicit public participation.

AR00016266

SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS (CONTINUED)

Comment	Response	Comment
Clifton Takamura	Provided suggestions on how to improve existing bus system.	Improvements to the bus system occur on an ongoing basis.
	Suggested using the old OR&L right-of-way as an alignment..	The alignment of the OR&L right-of-way is not appropriate for modern, high-speed transit vehicles. Some of the right-of-way is being proposed for bicycle use.
	Asked whether the proposed transit system will be a moneymaker, and whether it will be used by visitors.	Publicly-funded transit systems are not intended to made a profit. Creation of a profit is not one of the project purposes. Both visitors and residents are expected to use transit under any of the alternatives.
	Favored a system that uses a combination of LRT and buses.	The LRT has been replaced by the BRT Alternative, which would have In-Town and Regional systems that combine traditional buses and more technologically advanced energy-efficient vehicles.
Shannon Wood	Suggested expansion of alternatives to include more freeways, water-based transportation, and expansion of LRT system to Mililani, Hawaii Kai and Waikiki.	Chapter 2 describes the evolution of the alternatives that receive detailed treatment in the MIS/DEIS.
	Requested impacts analysis in the event of a natural disaster, and if the price of fossil fuel rises substantially.	Improved transit would enhance mobility during a natural disaster and if fossil fuel prices rise substantially.
Jim Yamamoto	LRT system should serve Bethel Street.	The LRT has been replaced by the BRT Alternative. There would be a transit stop in the vicinity of Bethel Street.
	Requested analysis of why people drive.	People travel for many reasons, and these factors have been included in the travel demand forecasts prepared for this project.
	Suggested multi-modal efforts to address transportation issues.	The TSM and BRT Alternatives are multi-modal alternatives, as described in Chapter 2.
Brian Yoshida, Moanalua Community Association	Supported the LRT alternative, but would also like to see the project include roadway widening on the H1 Freeway, and extending the Nimitz viaduct to Downtown.	The LRT Alternative has been replaced by the BRT Alternative. The H1 Freeway widening and Nimitz viaduct have been or are being considered under separate projects.
	Requested analysis of disruption of traffic during construction, projected ridership of different alternatives, and projected fares for the LRT.	Construction-phase impacts, including impacts on traffic, are discussed in Section 5.12. Ridership projections are presented in Chapter 4. Fares and project financing plans are presented in Chapter 6.
Pamela Young	Additional right-of-way requirements should be disclosed.	Right-of-way requirements are discussed in Section 5.2.
	Questioned the need for LRT, especially since the Leeward and Central Oahu areas contain a third of Oahu's population.	The LRT Alternative has been replaced by the BRT Alternative. Chapter 1 discusses the need for the project. There is a substantial imbalance now and in the future between travel demand and transportation system capacity for travelers in the Primary Transportation Corridor, which includes Leeward and the southern portion of the Central District.

SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS (CONTINUED)

Comment	Response	Comment
Anonymous	Criticized the lack of opportunity for exchange of comments, questions and answers before the whole audience.	Comment noted.
	Expressed frustration on the lack of progress on needed transportation improvements.	DTS shares the commentors frustration about the lack of progress on this important quality of life issue.
	Supports a "traditional" looking LRT system rather than a "modern" looking LRT system.	The LRT Alternative has been replaced by the BRT Alternative. The final look of the BRT vehicles, if this alternative is selected, has not yet been selected.
Unknown, Agency	Will project be used to assist in urban planning?	Yes. Project is coordinating with current planning efforts to update the PUC DP, sustainability plans of other DP areas and the recently completed Ewa DP. Overall land use objectives are to encourage urban growth in the PUC and Ewa, and discourage suburban sprawl in other areas. Transportation is one tool to help facilitate these land use objectives. Improved transit service will make in-town living more attractive.
	Need land use controls to discourage/prevent gentrification around future transit stations	Will ensure that future development is consistent with community visions and desires.
	Is the third light rail transit LRT Alternative a first phase of the first and second LRT Alternatives?	The LRT Alternative has been replaced by the BRT Alternative.
	Does BRT Alternative include LRT from downtown to Waikiki?	None of the alternatives moving forward include LRT technology.
	Do any of the alternatives include service between the airport and Waikiki?	Ridership estimates will include all travel markets, including demand between the airport and Waikiki. However, addressing the airport/Waikiki travel market is not a major purpose of this project. Airport travelers would need to get to the Middle Street Transit Center to access the system.
	Is modifying the H-1 Zipper Lane to carry P.M. peak traffic possible?	Yes. The BRT Alternative includes a PM zipper lane.
	Is it possible to come up with defensible ridership projections?	Ridership projections are described in Chapter 4.
	Is there a cost per new rider threshold for receiving federal funds as a transit "new start"?	To receive federal funding, a project must be on the federal "new start" list. There are many rating criteria that score projects on the "new start" list, including cost per new rider. The FTA will use many other criteria, such as ridership, to evaluate the project. After determining eligibility, the project would compete with other transit projects across the nation for federal funds.
	Transit center locations in Waipahu should follow the Waipahu Special Area Plan.	There are no site-specific locations for the Waipahu transit centers. However, they will be located strategically to serve BRT treatments on Fort Weaver Road and other roadways.
	Has a site for the LRT maintenance yard for the Waikiki/Downtown line been selected?	The LRT Alternative has been replaced by the BRT Alternative. In-Town BRT vehicles would be maintained at the Middle Street Transit Center.

AR00016267

SUMMARY OF COMMENTS RECEIVED AT THE AGENCY INFORMATION AND SCOPING MEETINGS (CONTINUED)

Comment	Response	Comment
Unknown, Agency	Will lanes be used exclusively for the LRT?	The LRT Alternative has been replaced by the BRT Alternative. The In-Town BRT would use both exclusive and semi-exclusive lanes.
	Disagreed that communities do not want more lanes for automobiles.	Comment noted.
	Will there be any grade-separated sections for the LRT?	The LRT Alternative has been replaced by the BRT Alternative. No grade-separations are proposed.
	People are asking for a more balanced transportation system.	That is what this project is trying to accomplish. Chapter 1 describes the project purposes and needs in more detail.
	Will this project do anything to alleviate the problem of motorists using residential side streets to avoid congestion on the main arterial streets?	By enhancing transit service, more people would be encouraged to use transit instead of private automobiles.
	What are bus ramps?	Ramps that are restricted to buses and certain vehicles, such as vanpools. Their objective is to provide transit priority, thereby rewarding transit patrons with shorter travel times.
	The DPs contain lists of cultural assets and resources, and important viewplanes and visual resources.	The information in the DP's was used in the preparation of the MIS/DEIS.
	What are the costs of the alternatives?	Cost estimates are discussed in Chapter 2.
	What are committed projects?	Projects that are listed in the Oahu Regional Transportation Plan as proposed for completion by the year 2005.
	What is the time horizon for this project?	Planning is based on travel demand forecasts and land use projected for 2025.

AR00016268

Appendix A
Exhibit A-2

EXHIBIT A-2. COMMENTS AND RESPONSES REGARDING SDEISPN AND NOI

This exhibit includes the letters received in response to the Supplemental Draft Environmental Impact Statement Preparation Notice published in the August 23, 2001 The Environmental Notice. Each comment letter is followed by a response letter from the Department of Transportation Services.

Elected Official, Agency, or Organization	Comment Letter Date
UNITED STATES	
Senator Daniel Akaka, United States Senate	September 7, 2001
Department of the Army	August 30, 2001
Federal Aviation Administration	September 14, 2001
STATE OF HAWAII	
Office of Environmental Quality Control	August 22, 2001
Hawaii Community Development Authority	August 24, 2001
Commission on Water Resource Management	August 24, 2001
Department of Health	August 28, 2001 and October 2, 2001
Department of Education	August 31, 2001
Land Use Commission	September 4, 2001
Department of Land and Natural Resources, State Historic Preservation Division	September 7, 2001 and September 19, 2001
Department of Land and Natural Resources, State Parks Division	September 10, 2001
Housing and Community Development Corporation	September 12, 2001
Aloha Tower Development Corporation	September 21, 2001
Department of Accounting and General Services	September 21, 2001
University of Hawaii	September 21, 2001
CITY AND COUNTY OF HONOLULU	
Gary Okino, City Council	September 19, 2001
Police Department	September 12, 2001
Fire Department	September 13, 2001
Board of Water Supply	September 14, 2001
Department of Planning and Permitting	September 19, 2001
ORGANIZATIONS	
Harbor Square Condominium Association	September 21, 2001
Kakaako Improvement Association	September 21, 2001
Hawaiian Electric Company	October 4, 2001
COMMUNITY GROUPS	
Downtown Neighborhood Board	August 22, 2001
Waialae-Kahala Neighborhood Board	September 21, 2001
PRIVATE CITIZENS	
Wendell Lum	September 7, 2001
Charles Ferrell	September 13, 2001
Frederick Gross	September 18, 2001
P. Pasha Baker	September 21, 2001
Doug Meller	September 21, 2001

DANIEL K. AKAKA
HAWAII

WASHINGTON OFFICE
141 HART SENATE OFFICE BUILDING
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United States Senate

WASHINGTON, DC 20510-1103

MEMBER
COMMITTEES
ARMED SERVICES
ENERGY AND NATURAL RESOURCES
GOVERNMENTAL AFFAIRS
INDIAN AFFAIRS
VETERANS' AFFAIRS
SELECT COMMITTEE ON ETHICS

September 7, 2001

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, #1200
Honolulu, HI 96813

Dear Ms. Soon:

Thank you for providing me a copy of the City and County of Honolulu Department of Transportation Services' notification that it will be preparing a Supplemental Draft Environmental Impact Statement (DEIS) for the Primary Corridor Transportation Project.

I appreciate receiving this information and look forward to reviewing the final Environmental Impact Statement for this project.

Once again, mahalo for taking the time to share the Supplemental DEIS with me.

Aloha pumehana,

Daniel K. Akaka

DANIEL K. AKAKA
U.S. Senator

PRINTED ON RECYCLED PAPER

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP10/01-04519R

March 8, 2002

The Honorable Daniel K. Akaka
U. S. Senator
P. O. Box 50144
Honolulu, Hawaii 96850

Dear Senator Akaka:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 7, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF

August 30, 2001

Regulatory Branch

Ms. Cheryl D. Soon, Director
Department of Transjportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Thank you for the opportunity to review the Preparation Notice for the Supplemental Draft Environmental Impact Statement for the Primary Corridor Transportation Project, dated August 2001. The comments contained in my letter to you dated September 13, 2000 are still appropriate, and we have no additional comments.

If you have any questions concerning this matter, please contact William Lennan of my staff at 438-6986 or FAX 438-4060, and reference File No. 990000338.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-03889R

March 8, 2002

Mr. George P. Young, P. E.
Department of the Army
U. S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Dear Mr. Young:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your August 30, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter referred us to your September 13, 2000 letter, which had the following comment:

> "It is possible that some of the components of the project may require a Department of the Army (DA) permit; however, since the information provided is not sufficiently detailed to determine specific permit requirements. As the project elements progress to final design stages, we will be better able to advise you concerning permit requirements."

Coordination with the Army is continuing and at this time we do not believe the project will require a DA permit. The SDEIS does identify the required permits.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

U.S. Department of Transportation
Federal Aviation Administration

Western-Pacific Region
Property and Services Branch

P. O. Box 50109
Honolulu, Hawaii 96850-5000

September 14, 2001

Ms. Cheryl D. Soon
Director, Department of
Transportation Services
City and County of Honolulu
Pacific Park Plaza
711 Kapiolani Boulevard, Suite
1200
Honolulu, HI 96813

Dear Ms. Soon:

Your letter of August 16, 2001, requested our review of your Supplemental Draft Environmental Impact Statement (DEIS) for the Primary Corridor Transportation Project.

The Federal Aviation Administration has no comments regarding your Supplemental DEIS.

We appreciate this opportunity to review and comment on this project. Please contact me at 541-1236, if there are any questions.

Sincerely,

Darice B. N. Young
Realty Contracting Officer,
AHNL-54B

cc: Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4525 • FAX: (808) 523-4730 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04114R

March 8, 2002

Ms. Darice B.N. Young
Realty Contracting Officer, AHNL-54B
Western Pacific Region
Federal Aviation Administration
U. S. Department of Transportation
P. O. Box 50109
Honolulu, Hawaii 96850-5000

Dear Ms. Young:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 14, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII

OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

August 22, 2001

Cheryl Soon
Department of Transportation Services
711 Kapiolani Blvd., #1200
Honolulu, Hawaii 96813

Attn: Kenneth Hayamasu

Dear Ms. Soon:

Subject: Supplemental Environmental Impact Statement (EIS) Preparation Notice
Primary Corridor Transportation Project

We have the following comments to offer:

1. Pre-consultation comments: If you have received any comments during the pre-consultation stage, please include them with their responses in the draft EIS. Also include *synopses* of the community working group meetings that dealt with the proposed changes.

2. Acronyms: Please consider including a list of acronyms and abbreviations in the draft EIS. Such a list would be useful for the reviewer.

3. Permits and approvals: In the draft EIS indicate the status of each of the listed permits and approvals for this project. If a permit has not been applied for, give the expected date of application.

If you have any questions call Nancy Heinrich at 586-4185.

Sincerely,

GENEVIEVE SALMONSON
Director

c: Robert Bramen, Parsons Brinckerhoff

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD8/01-03722R

March 8, 2002

Ms. Genevieve Salmonson
Director
State of Hawaii
Office of Environmental Quality Control
235 South Beretania Street
Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your August 22, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
If you have received any comments during the consultation stage, please include them with their responses in the draft EIS.	All comments and responses will be included in the SDEIS.
Also include synopses of the community working group meetings that dealt with the proposed changes.	A synopsis of the community working group meetings and resulting project refinements and proposed modifications will be included in the SDEIS.
Please consider including a list of acronyms and abbreviations in the draft EIS.	A list of acronyms and abbreviations will be included in the Appendix of the SDEIS.
In the draft EIS indicate the status of each of the listed permits and approvals for this project.	A list of permits and approvals and their status will be included in the SDEIS.

We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

Cheryl D. Soon
Director

HAWAII COMMUNITY DEVELOPMENT AUTHORITY

KAKAAKO
Where Hawaiʻi Comes Together

Benjamin J. Cayetano
Governor

Lori Ann C. Lum
Chair

Jan S. Yokota
Executive Director

677 Ala Moana Boulevard
Suite 1001
Honolulu, Hawaii
96813

Telephone
(808) 587-2870

Facsimile
(808) 587-8150

e-Mail
contact@hcdaweb.org

Web site
www.hcdaweb.org

File Nos.: GF COUN 5.17
PL TRANS 7.14

August 24, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Thank you for transmitting the Supplemental Draft Environment Impact Statement of the Primary Corridor Transportation Project for our review and comment.

As you know, the Hawaii Community Development Authority development agenda calls for the development of several major public and private projects over the near future. These projects could add over 30,000 automobile trips per day at full build out. The traffic strategy for the Makai Plan called in part for the design of a "walkable community", one in which people could live, work and play without having to depend on an automobile. However, the key to success for such a community would be an efficient and affordable public transit system. BRT service for this area would provide that necessary public transit.

We therefore support your proposed additional alignment through Kakaako Makai.

Please feel free to call me if you have any questions.

Sincerely,

Teney K. Takahashi
Director of Planning and Development

TKT:gst
c: Office of Environment Quality Control

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD8/01-03845R

March 8, 2002

Mr. Teney K. Takahashi
Director of Planning and Development
Hawaii Community Development Authority
State of Hawaii
677 Ala Moana Boulevard, Suite 1001
Honolulu, Hawaii 96813

Dear Mr. Takahashi:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your August 24, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
As you know, the Hawaii Community Development Authority development agenda calls for the development of several major public and private projects over the near future. These projects could add over 30,000 automobile trips per day at full build out. The traffic strategy for the Makai Plan called in part for the design of a 'walkable community', one in which people could live, work and play without having to depend on an automobile. However, the key to success for such a community would be an efficient and affordable public transit system. BRT service for this area would provide the necessary public transit.	The BRT project would provide a transportation alternative to the automobile and would be affordable.
We therefore support your proposed additional alignment through Kakaako Makai.	Support for the Kakaako Makai alignment noted.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

Cheryl D. Soon
Director

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P O BOX 621
HONOLULU, HAWAII 96809

AUG 24 2001

GILBERT S. COLOMA-AGARAN
CHAIRPERSON

BRUCE S. ANDERSON
ROBERT G. GIRALD
BRIAN C. NISHIDA
DAVID A. NOBRIGA
HERBERT M. RICHARDS, JR.

LINNEL T. NISHIOKA
DEPUTY DIRECTOR

TP001-00500

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City & County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Supplemental Draft EIS for Primary Corridor Transportation Project

Thank you for the opportunity to review the subject document. Our comments related to water resources are marked below.

In general, the CWRM strongly promotes the efficient use of our water resources through conservation measures and use of alternative non-potable water resources whenever available, feasible, and there are no harmful effects to the ecosystem. Also, the CWRM encourages the protection of water recharge areas, which are important for the maintenance of streams and the replenishment of aquifers.

[ ] We recommend coordination with the county government to incorporate this project into the county's Water Use and Development Plan.

[ ] We recommend coordination with the Land Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

[X] We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

[ ] A Well Construction Permit and/or a Pump Installation Permit from the Commission would be required before ground water is developed as a source of supply for the project.

[ ] The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit from the Commission would be required prior to use of this source.

[ ] Groundwater withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

[ ] We are concerned about the potential for degradation of instream uses from development on highly erodible slopes adjacent to streams within or near the project. We recommend that approvals for this project be conditioned upon a review by the corresponding county's Building Department and the developer's acceptance of any resulting requirements related to erosion control.

[ ] If the proposed project includes construction of a stream diversion, the project may require a stream diversion works permit and amend the instream flow standard for the affected stream(s).

[X] If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.

[ ] OTHER:

If there are any questions, please contact Roy Hardy at 587-0274.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

c. OEQC

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX (808) 523-4730 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "REOKI" MIYAMOTO
DEPUTY DIRECTOR

TP8/01-03793R

March 8, 2002

Ms. Linnel T. Nishioka, Deputy Director
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii
P. O. Box 621
Honolulu, Hawaii 96809

Dear Ms. Nishioka:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your August 24, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.	The proposed project will comply with all appropriate local, state, and federal regulations and will obtain all necessary permits.
If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.	The proposed project would not alter the bed or banks of any stream channels; therefore, a stream channel alteration permit would not be necessary.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
EMD/CWB

08088PSS.01

August 28, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: **Comments on Supplemental Draft Environmental Impact Statement (DEIS) Preparation Notice for Primary Corridor Transportation Project Honolulu, Oahu, Hawaii**

The Department of Health, Clean Water Branch (CWB) acknowledges receipt of your Supplemental DEIS Preparation Notice and has the following comments:

1. The applicant should contact the Army Corps of Engineers to identify whether a Federal permit (including a Department of Army permit) is required for this project. A Section 401 Water Quality Certification is required for "Any applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters...," pursuant to Section 401(a)(1) of the Federal Water Pollution Act (commonly known as the "Clean Water Act").

2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for each of the following activities which discharges into State Waters:

   a. Discharge of storm water runoff associated with construction activities that involve the disturbance of five acres or greater, including clearing, grading, and excavation;
   b. Discharge of hydrotesting water; and
   c. Discharge of construction dewatering effluent.

   If any construction activities will take place after March 10, 2003, discharge of storm water runoff associated with construction activities that involve the disturbance of one acre or greater, including clearing, grading, and excavation shall require coverage under the NPDES general permit.

3. The applicant may be required to apply for an Individual NPDES Permit if there is any type of process wastewater discharge from the project into State Waters.

Should you have any further questions regarding this matter, please contact Mr. Shane Sumida of the Engineering Section , CWB, at 586-4309.

Sincerely,

DENIS R. LAU, P.E., CHIEF
Clean Water Branch

SS/cr

AR00016279

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-03963R

March 8, 2002

Mr. Denis R. Lau, P.E, Chief
Clean Water Branch
Department of Health
State of Hawaii
P. O. Box 3378
Honolulu, HI 96801-3378

Dear Mr. Lau:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your August 28, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
The applicant should contact the Army Corps of Engineers to identify whether a Federal permit (including a Department of Army permit) is required for this project.	The ACOE will be contacted about permit requirements.
A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for each of the following activities which discharges into State Waters: a. Discharge of storm water runoff associated with construction activities that involve the disturbance of five acres or greater, including clearing, grading, and excavation; b. Discharge of hydrotesting water; and c. Discharge of construction dewatering effluent. If any construction activities will take place after March 10, 2003, discharge of storm water runoff associated with construction activities that involve the disturbance of one acre or greater, including clearing, grading, and excavation shall require coverage under the NPDES general permit.	The ACOE will be contacted about permit requirements. A NPDES permit will be obtained prior to construction.

The applicant may be required to apply for an Individual NPDES Permit if there is any type of process wastewater discharge from the project into State Waters.	An Individual NPDES Permit will be obtained if necessary.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

AR00016280

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to:
File:

01-104/epo

October 2, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer at this time:

Wastewater Branch

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We reserve the right to review the detailed wastewater plans for conformance to applicable rules.

Should you have any questions, please contact the Planning/Design section of the Wastewater Branch at 586-4294.

Clean Air Branch

Control of Fugitive Dust:

A Supplemental Draft Environmental Impact Statement was submitted to the Department of Health for the proposed changes to the Primary Corridor Transportation Project. The applicant, Department of Transportation Services, City & County of Honolulu, proposes to add an In-Town Bus Rapid Transit (BRT) branch to serve Aloha Tower Marketplace and Kakaako Makai; realign a section of the U.H. In-Town BRT alignment from Ward Avenue to Pensacola Street; and replace the Kaonohi Street BRT ramp with one at Luapele Drive. The Department of Health, Clean Air Branch, has concerns on construction activities where potential dust problems may arise. There is a significant potential for fugitive dust to be generated during the various phases of the project, including clearing and removal of debris, grubbing, grading, and excavation.

Implementation of adequate dust control measures during all phases of construction is warranted. Construction activities must comply with provisions of Chapter 11-60.1, Hawaii Administrative Rules, section 11-60.1-33 on Fugitive Dust.

The contractor should provide adequate means to control dust from road areas and during the various phases of construction activities. These means include, but are not limited to: Control of Fugitive Dust:

A Supplemental Draft Environmental Impact Statement was submitted to the Department of Health for the proposed changes to the Primary Corridor Transportation Project. The applicant, Department of Transportation Services, City & County of Honolulu, proposes to add an In-Town Bus Rapid Transit (BRT) branch to serve Aloha Tower Marketplace and Kakaako Makai; realign a section of the U.H. In-Town BRT alignment from Ward Avenue to Pensacola Street; and replace the Kaonohi Street BRT ramp with one at Luapele Drive. The Department of Health, Clean Air Branch, has concerns on construction activities where potential dust problems may arise. There is a significant potential for fugitive dust to be generated during the various phases of the project, including clearing and removal of debris, grubbing, grading, and excavation. Implementation of adequate dust control measures during all phases of construction is warranted. Construction activities must comply with provisions of Chapter 11-60.1, Hawaii Administrative Rules, section 11-60.1-33 on Fugitive Dust.

The contractor should provide adequate means to control dust from road areas and during the various phases of construction activities. These means include, but are not limited to:

a. Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;

b. Providing an adequate water source at site prior to start-up of construction activities;

c. Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;

d. Controlling of dust from shoulders, and access roads;

e. Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and

f. Controlling of dust from debris being hauled away from project site.

If you have any questions on fugitive dust issues, please contact Ms. Crystal Peltier at 586-4200.

Clean Water Branch

1. The applicant should contact the Army Corps of Engineers to identify whether a federal permit (including a Department of Army permit) is required for this project. If a federal permit is required, then a Section 401 Water Quality Certification is require from the State Department of Health, Clean Water Branch.

2. A National Pollutant Discharge Elimination System (NPDES) general permit is required for the following discharges to waters of the State:

   a. Storm water discharges relating to construction activities, such as clearing, grading, and excavation for projects equal to or greater than five acres;

   b. Storm water discharges from industrial activities;

   c. Construction dewatering activities;

   d. Noncontact cooling water discharges less than one million gallons per day;

   e. Treated groundwater from underground storage tank remedial activities;

   f. Hydro testing water;

   g. Treated effluent from petroleum bulk stations and terminals; and

   h. Treated effluent from well drilling activities.

   Any person requesting to be covered by a NPDES general permit for any of the above activities should file a Notice of Intent with the Department's Clean Water Branch at least 30 days prior to commencement of any discharge to waters of the State.

3. After construction of the proposed facility is completed, an NPDES individual permit will be required if the operation of the facility involves any wastewater discharge into State waters.

Any questions regarding these comments can de directed to the Clean Water Branch at 586-4309.

Sincerely,

GARY GILL
Deputy Director
Environmental Health Administration

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP10/01-04403R

March 8, 2002

Mr. Gary Gill, Deputy Director
Environmental Health Administration
Department of Health
State of Hawaii
P. O. Box 3378
Honolulu, Hawaii 96801-3378

Dear Mr. Gill:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your October 2, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
Wastewater Branch - All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We reserve the right to review the delailed wastewater plans for conformance to applicable rules.	If wastewater plans are required, they will conform to the Department of Health's (DOH) Administrative Rules, Chapter 11-62, "Wastewater Systems" and be submitted to DOH for review.
Clean Air Branch - The Department of Health, Clean Air Branch, has concerns on construction activities where potential dust problems may arise. There is a significant potential for fugitive dust to be generated during the various phases of the project, including clearing and removal of debris, grubbing, grading, and excavation.	Appropriate dust control measures would be implemented during construction.

Implementation of adequate dust control measures during all phases of construction is warranted. Construction activities must comply with provisions of Chapter 11-60, Hawaii Administrative Rules, section 11-60.1-33 on Fugitive Dust	All construction activities for the project will comply with appropriate Hawaii Administrative Rules.
The contractor should provide adequate means to control dust from road areas and during various phases of construction activities. These means include, but are not limited to: Control of Fugitive Dust.	Appropriate dust control measures would be implemented during construction.
Clean Water Branch - The applicant should contact the Army Corps of Engineers to identify whether a federal permit (including a Department of the Army permit) is required for this project.	All necessary agencies will be contacted and required permits obtained.
A National Pollutant Discharge Elimination System (NPDES) general permit is required for the following discharges to waters of the State: (conditions listed). Any person requesting to be covered by a NPDES general permit for any of the above activities should file Notice of Intent with the Department's Clean Water Branch at least 30 days prior to commencement of any discharge to waters of the State.	Thank you for this information, all necessary agencies will be contacted and required permits obtained.
After construction of the proposed facility is completed, an NPDES individual permit will be required if the operation of the facility involves any wastewater discharge into State waters.	Thank you for this information, all necessary agencies will be contacted and required permits obtained.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

PAUL G. LeMAHIEU, Ph.D.
SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

August 31, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawai`i 96813

Dear Ms. Soon:

Subject: Primary Corridor Supplemental DEISPN

The Department of Education has no comment on the subject supplemental draft environmental impact statement preparation notice.

Thank you for the opportunity to respond.

Very truly yours,

Paul G. LeMahieu, Ph.D.
Superintendent of Education

PLeM:lty

cc: A. Suga, DAS
G. Salimonson, OEQC

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TP9/01-03921R

March 8, 2002

Ms. Patricia Hamamoto
Superintendent of Education
Department of Education
State of Hawaii
P. O. Box 2360
Honolulu, HI 96804

Dear Ms. Hamamoto:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your August 31, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

ANTHONY J.H. CHING
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
P.O. Box 2359
Honolulu, HI 96804-2359
Telephone: 808-587-3822
Fax: 808-587-3827

September 4, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Supplemental Draft Environment Impact Statement Preparation Notice
Project Name: Primary Corridor Transportation Project
Applicant: City and County of Honolulu, Department of Transportation Services
TMK Nos.: Various

This to acknowledge receipt of the subject Supplemental Draft Environmental Impact Statement Preparation Notice ("SDEISPN") for improvements to the transportation system and linkages of the Primary Corridor as transmitted by your letter dated August 16, 2001.

We have no comments to offer. Thank you for the opportunity to review and provide comment on the SDEISPN. Should you require clarification or further assistance in this matter, please contact Russell Kumabe of my staff at (808) 587-3822.

Sincerely,

ANTHONY J.H. CHING
Executive Officer

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4432 • FAX: (808) 523-4730 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04027R

March 8, 2002

Mr. Anthony J. H. Ching, Executive Officer
Land Use Commission
State of Hawaii
Department of Business, Economic
Development & Tourism
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Ching:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 4, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
JANET E. KAWELO
LINNEL NISHIOKA

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

September 7, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

LOG NO: 28142
DOC NO: 0109tm01

Dear Ms. Soon:

SUBJECT: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for transmitting the Supplemental Draft Environmental Impact Statement for the Primary Corridor Transportation Project. Since the preferred alternative includes new routes, we would like a windshield level survey done along these new routes to identify historic sites that may be affected. Of concern to our office, in addition to the underground archaeological resources that may be uncovered, are the historic sites along the route. We would like to ensure that road widening, ramps, transit stations and any other structures necessary to operate the BRT system does not adversely impact these historic sites.

Please note, in the permits and approvals section, that while our approval is not necessary to proceed under Section 106 of the National Historic Preservation Act, the responsible federal agency will need to document its consultation with our office. Also, our written concurrence for projects by the state or its political subdivisions is required under Chapter 6E-8, Hawaii Revised Statutes.

Thank you for the opportunity to comment. Should you have further questions regarding the historic sites survey, please call Tonia Moy at (808)692-8030.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

TM:jk

c: Office of Environmental Quality Control

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04138R

March 8, 2002

Mr. Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

Dear Mr. Hibbard:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 7, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
Since the preferred alternative includes new routes, we would like a windshield level survey done along these new routes to identify historic sites that may be affected.	The SDEIS will include a windshield survey of the potential historic sites along the alignments.
Of concern to our office, in addition to the underground archaeological resources that may be uncovered, are the historic sites along the route. We would like to ensure that road widening, ramps, transit stations and any other structures necessary to operate the BRT system does not adversely impact these historic sites.	The SDEIS will address any impacts to historic sites.

Please note, in the permits and approvals section, that while our approval is not necessary to proceed under Section 106 of the National Historic Preservation Act, the responsible federal agency will need to document its consultation with our office.	Consultation with the SHPD is an integral part of the coordination process and will continue throughout the project development process.
Also, our written concurrence for projects by the state or its political subdivisions is required under Chapter 6E-8, Hawaii Revised Statutes.	Chapter 6-E, Hawaii Revised Statues will be followed and SHPD written concurrence will be obtained.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
JANET E. KAWELO
LINNEL NISHIOKA

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

September 19, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

LOG NO: 28221
DOC NO: 0109SC09

Dear Ms. Soon:

SUBJECT: National Historic Preservation Act, Section 106 Compliance – Comment on Preparation Notice (PN) for a Supplemental Draft Environmental Impact Statement (SDEIS) for the Proposed Primary Corridor Transportation Project Island of O`ahu

Thank you for the opportunity to comment on the SDEISPN issued for the proposed Primary Corridor Transportation Project. The City and County of Honolulu Department of Transportation Services (DTS) is carrying out the subject project with the assistance of the US Department of Transportation, Federal Transit Administration, and the Federal Highway Administration. We received notice of the subject undertaking on or about August 22, 2001. In addition, Sara Collins, Elaine Jourdane, and Tonia Moy of our office met with Faith Miyamoto of DTS and Ann Koby of PB Consult on September 13, 2001, in order to review aspects of the SDEISPN. We provide the following comments.

In general, we will need to have more specific information on what historic properties are present within the Area of Potential Effect (APE) as well as more details on any ground disturbing activities required to construct portions of the project. Once we have the data on historic sites, we shall be better able to determine what, if any, effects the proposed undertaking will have on significant historic sites. We thus look forward to receiving more detailed information from your agency as it becomes available.

Should you have any questions about archaeology, please feel free to contact Sara Collins at 692-8026. Should you have any questions about architecture, please feel free to contact Tonia Moy at 692-8030. Should you have any questions about burial matters, please feel free to contact Kai Markell at 587-0008.

Aloha,

Gilbert Coloma-Agaran
State Historic Preservation Officer

SC:jk

c: Mr. A. Van Horn Diamond, Chair, O`ahu Island Burial Council
Mr. Kai Markell, Burial Sites Program

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP10/01-04426R

March 8, 2002

Mr. Gilbert Coloma-Agaran
State Historic Preservation Officer
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

Dear Mr. Coloma-Agaran:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 19, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comment:

> "In general, we will need to have more specific information on what historic properties are present within the Area of Potential Effect (APE) as well as more details on any ground disturbing activities required to construct portions of the project."

More specific information about historic properties and construction activities is provided in the SDEIS. Also, we have been meeting with you staff regarding the historic and archaeological aspects of the project.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF STATE PARKS
P.O. BOX 621
HONOLULU, HAWAII 96809

GILBERT S. COLOMA-AGARAN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

JANET T. KAWELO
DEPUTY DIRECTOR

LINNEL T. NISHIOKA
DEPUTY DIRECTOR FOR
THE COMMISSION ON WATER
RESOURCE MANAGEMENT

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE
COMMISSION
LAND
STATE PARKS

September 10, 2001

REF:PPB:LT File No.: 00-90

Ms. Cheryl Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Re: Primary Corridor Transportation Project

We appreciate the opportunity to review the Supplemental Draft EIS Preparation Notice for the subject project and would like to request to be a consulted party.

Very truly yours,

Daniel S. Quinn
State Parks Administrator

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04095R

March 8, 2002

Mr. Daniel S. Quinn, State Parks Administrator
Division of State Parks
Department of Land and Natural Resources
State of Hawaii
P. O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Quinn:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 10, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813
FAX (808) 587-0600

01/PEO:2044

September 12, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Re: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Dear Ms. Soon:

Thank you for the opportunity to review the Supplemental DEIS Preparation Notice for the Primary Corridor Transportation Project.

At this point in time, we have no additional comments.

Sincerely,

Sharyn L. Miyashiro
Executive Director

c: Office of Environmental Quality Control

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD9/01-04105R

March 8, 2002

Ms. Sharyn L. Miyashiro, Executive Director
Housing and Community Development
Corporation of Hawaii
Department of Business, Economic Development
and Tourism
State of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Ms. Miyashiro:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 12, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR
DAVID L. DUIE
CHAIRMAN
RONALD HIRANO
EXECUTIVE DIRECTOR

ALOHA TOWER DEVELOPMENT CORPORATION

600 Fort Street, Pier 10 Terminal, Second Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Website: www.alohatower.org

Telephone: (808) 586-2530
Fax: (808) 586-3046
E-mail: atdc@alohatower.org

September 21, 2001

Ms. Cheryl D. Soon
Director, Department of Transportation Services
City and County of Honolulu
711 Kapiolani Blvd., Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Subject: Supplemental Draft Environmental Impact Statement for the Primary Corridor Transportation Project /Bus Rapid Transit System

A stop at the Aloha Tower Marketplace has been planned for the Kakaako Makai branch of this route. This new BRT line will serve the Marketplace, the many shops restaurants and attractions in the area, as well as new projects proposed for the area known as Kakoako Makai. It will also provide a convenient transportation alternative for the hundreds of employees that work at the Marketplace and surrounding businesses.

The Aloha Tower Marketplace currently serves over 2 million patrons annually, both residents and visitors. A large number of these visitors are currently served by dedicated trolleys that take them from Waikiki to the Marketplace. While the Marketplace is also served by The Bus, this added route would greatly enhance the appeal of the Marketplace to local patrons as the BRT should be more convenient and accessible to the general public. ATDC is committed to its mission of creating opportunities for local residents to visit and enjoy the downtown waterfront, and to support any endeavors that accomplishes that goal. The Kakaako Makai branch of the BRT as designed, will take ATDC another step closer to fulfilling that goal.

While we are supportive of these revisions to your project, we do have the following questions: What is the timetable for completion of the Kakaako Makai Branch? Where will the terminus be placed for the Aloha Tower stops?

Thank you for allowing ATDC to provide comments to the SDEIS for the Primary Corridor Transportation Project.

Sincerely,

Ronald Hirano
Executive Director

c: Mr. Bob Bramen
Parsons Brinkerhoff

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04254R

March 8, 2002

Mr. Ronald Hirano
Executive Director
Aloha Tower Development Corporation
P. O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Hirano:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 21, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
We are supportive of these revisions to your project.	Support for the proposed modifications to the BRT Alternative noted.
What is the timetable for completion of the Kakaako Makai Branch?	The Kakaako Makai Branch will be implemented in 2006.
Where will the terminus be placed for the Aloha Tower stops?	The proposed Aloha Tower Transit Stop will be located along Aloha Tower Drive just Koko Head of Bishop Street. The stop for the Ewa direction will be located along the mauka curb between two existing driveways servicing the HECO facility. The stop for vehicles traveling in the Koko Head direction would also be located on Aloha Tower Drive but on the makai curb just to the Koko Head side of Pier 7.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810

LETTER NO (P)1617.1

SEP 21 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for the opportunity to review the Supplemental Draft Environmental Impact Statement for the subject project. We do have concerns about the negative impacts on a portion of the subject project, and we offer the following comments.

We are currently working with the Housing and Community Development Corporation of Hawaii (HCDCH) to plan the development of our portion of the area located at and around the old OR&L Building near the intersection of King Street and Iwilei Road. Our intent is to construct a Liliha Civic Center to provide office space for State agencies to service the public. As such, we believe:

1. The proposed plan extending Kaaahi Street (at grade) toward Diamond Head to Iwilei Road would result in maximum disruption to the planned civic center site. It nearly bisects the property with a roadway that we do not intend to utilize. We question if a Bus Rapid Transit (BRT) easement is required to traverse the site at all (as opposed to remaining on Dillingham Boulevard to and from King Street, for example, since the plans for the BRT already take away two of the five lanes on Dillingham one block away). In lieu of an easement for the roadway, we propose an exchange of road Right-of-Way for county-owned school land.

2. The proposed BRT station and any BRT parking structure on site would also adversely affect the development of the civic center, by increasing traffic around our site and taking up valuable property.

3. That if the city still plans to go ahead with Items 1 and 2 above, then the City should consider purchasing the adjacent Ohtani property to execute a land swap plus purchase of all improvements with the State. This would provide us with adequate property free of the disruption from increased vehicular traffic.

Further, we request additional information about the proposed extension. What is the anticipated volume and type of traffic? Will private vehicles be permitted to use Kaaahi Street to cross through the site to Iwilei Road?

Nearly ten years ago, the previous professionally-planned rapid transit project (unfortunately now defunct), was conceived to be above grade in this area, with a station located Ewa off-site, makai of Kaaahi Street to serve this neighborhood. The transit easement alignment would have been much closer to the makai boundary than, for example, an extension of Kaaahi Street provides, and would therefore have less of an impact on our portion of the site.

Should there be any questions, please have your staff call Mr. Bruce Bennett of the Planning Branch at 586-0491.

Sincerely,

GORDON MATSUOKA
Public Works Administrator

BB:mo
c: Mr. Neal Wu, HCDCH
Ms. Charlene Unoki, DLNR
Ms. Genevieve Salmonson, OEQC

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04214R

March 8, 2002

Mr. Gordon Matsuoka, Public Works Administrator
State of Hawaii
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Matsuoka:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 21, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
We are currently working with the Housing and Community Development Corporation of Hawaii (HCDCH) to plan the development of our portion of the area located at and around the old OR&L Building near the intersection of King Street and Iwilei Road. Our intent is to construct a Liliha Civic Center to provide office space for State agencies to service the public. As such, we believe:	The DTS is committed to coordinating with DAGS to ensure that the two projects proceed in a timely manner.
The proposed plan extending Kaaahi Street (at grade) toward Diamond Head to Iwilei Road would result in maximum disruption to the planned civic center site. It nearly bisects the property with a roadway that we do not intend to utilize. We question if a Bus Rapid Transit (BRT) easement is required to traverse the site at all (as opposed to remaining on Dillingham Boulevard to and from King Street, for example, since the plans for the BRT already take away two of the five lanes on Dillingham one block away). In lieu of an easement for the roadway, we propose an exchange of road Right-of-Way for county-owned school land.	The DTS is committed to coordinating with DAGS to ensure that the two projects proceed in a timely manner.

The proposed BRT station and any BRT parking structure on site would also adversely affect the development of the civic center, by increasing traffic around our site and taking up valuable property.	Chapter 4 of the DEIS presents the traffic impacts associated with the BRT project.
That if the city still plans to go ahead with items 1 and 2 above, then the City should consider purchasing the adjacent Ohtani property to execute a land swap plus purchase of all improvements with the State. This would provide us with adequate property free of the disruption from increased vehicular traffic.	The DTS is committed to coordinating with DAGS to ensure that the two projects proceed in a timely manner.
Further, we request additional information about the proposed extension. What is the anticipated volume and type of traffic?	The FEIS will refine the traffic conditions associated with implementing the BRT in this location.
Will private vehicles be permitted to use Kaaahi Street to cross through the site to Iwilei Road?	At this point in project development, private vehicles will not be permitted to use Kaaahi Street to access Iwilei Road.
Nearly ten years ago, the previous professionally-planned rapid transit project (unfortunately now defunct), was conceived to be above grade in this area, with a station located Ewa off-site, makai of Kaaahi Street to serve this neighborhood. The transit easement alignment would have been much closer to the makai boundary than, for example, an extension of Kaaahi Street provides, and would therefore have less of an impact on our portion of the site.	The FEIS will refine the benefits and impacts associated with implementing the BRT as discussed in the DEIS.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

AR00016293

UNIVERSITY OF HAWAI'I

SENIOR VICE PRESIDENT FOR ADMINISTRATION

September 21, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Dear Ms. Soon:

We have reviewed the Supplemental DEIS Preparation Notice and have no comments to offer at this time. Thank you for the opportunity to review this document.

Sincerely,

Allan Ah San
Associate Vice President for Administration

2444 DOLE STREET • BACHMAN HALL • HONOLULU, HAWAI'I 96822 • TEL (808) 956-8803 • FAX (808) 956-9212
AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION INSTITUTION

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04272R

March 8, 2002

Mr. Allan Ah San
Associate Vice President for Administration
University of Hawaii
2444 Dole Street
Bachman Hall
Honolulu, Hawaii 96822

Dear Mr. Ah San:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 21, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receivtng your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII 96813-3065 / TELEPHONE 547-7000

GARY H. OKINO
COUNCILMEMBER, DISTRICT VIII
CHAIR, PARKS & PUBLIC WORKS COMMITTEE
TELEPHONE (808) 547-7008
FACSIMILE (808) 523-4220

MANAGING DIRECTOR'S OFFICE

September 19, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City & County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Re: Comments and Concerns
Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement Preparation Notice

In response to the Primary Corridor Transportation Project Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice dated August 2001, I wish to raise the following questions and concerns, and request that they be fully addressed in the SDEIS.

A. Inclusion of the Kamehameha Highway Transit Corridor/BRT Spur and Transit Stations in the SDEIS Analysis.

In lieu of the originally proposed Kaonohi Street BRT ramps and Kamehameha Drive-in location of a transit center, the Pearl City-Aiea working group recommended the following transportation elements:

1) Establishment of a transit corridor or "BRT spur" along Kamehameha Highway;
2) Development of two community transit centers along Kamehameha Highway, one at the site of the former Jim Slemmons auto dealership, the other on the site of the old Hale Mohalu Hospital;
3) Development of a major transit center with park-and-ride facilities at the Aloha Stadium overflow parking lot; and
4) Construction of a new BRT on/off ramp near Luapele Street to connect the Aloha Stadium Transit Center with the H-1 zipper lanes.

It appears from the SDEIS Preparation Notice that the only element of the working group's recommendation to be included in the SDEIS is the construction of the new BRT on/off ramp near Luapele Street. This is a serious omission since the Kamehameha Highway transit corridor and transit stations are intended to service BRT vehicles that will directly enter and run along the Regional BRT H-1 corridor.

Why is this integral part of the system being carved or parceled out of the SDEIS analysis? Does this limited review comply with the intent and legal requirements of the Environmental Impact Statement process? I believe that it is imperative that the SDEIS ascertain the impacts of the system as a whole not just a few selected parts!

Since all elements of the Pearl City-Aiea working group's recommendation will be directly contributing to the BRT system's overall patronage and ridership estimates, revenue projections, and construction and operational expenses, it is only reasonable and logical that all elements likewise be included in the SDEIS analysis of impacts. Moreover, since these new elements will likely alter the results of the existing system-level analysis and findings provided in the MIS/DEIS, these additional elements must be included within the SDEIS to assure reliable, complete, up-to-date, and accurate system-wide projections and estimates.

The amended LPA (reference Resolution 01-208, CD1, FD1) specifically provides that the Kamehameha Highway contra-flow transit corridor and the Pearl City and Aiea transit centers be projects separate from, but complementary to, the amended LPA. Accordingly, this is to request, and strongly urge, that all elements recommended by the Pearl City-Aiea working group identified above, not just the replacement of the Kaonohi Street BRT ramp with one at Luapele Drive, be included as part of the SDEIS analysis.

B. Farrington Highway Transit Corridor and BRT Spur

It has recently been brought to my attention that the Department of Transportation Services is also considering developing a portion of Farrington Highway into a transit corridor/BRT spur similar to that proposed for Kamehameha Highway in the Pearl City-Aiea area. For all of the same reason identified above, I strongly urge that this proposed Farrington Highway transit corridor/BRT spur, and its related transit components, be included as part of the SDEIS analysis.

C. Agreement of Participation by State and Federal Agencies

A major factor in the success of the overall BRT system is the use of state and federal government infrastructure. For example, the Regional BRT route proposes to utilize the State Department of Transportation's Zipper Lane as a transit corridor, and the Luapele Drive BRT ramp will be connected to and accessible via the Navy-owned portion of Luapele Street.

Has the City received assurances from the appropriate agencies that it will be allowed to utilize the aforementioned as well as any other State- and Federally-controlled properties for the BRT system? If not, how will this affect the BRT project where specific locations/elements are identified in the SDEIS? What will be the result of a worst-case scenario where permission is not granted by either or both governments?

D. **Mixed Traffic Impediments to Efficient Regional and In-Town BRT Vehicular Movement.**

The key to efficient and effective movement of the BRT vehicles is their use of exclusive right-of-ways or traffic lanes to by-pass the normal congestion of our streets and highways. Unfortunately, there are several segments along the BRT route where the BRT vehicles must operate in mixed- or shared-use lanes with normal traffic. This is potentially a fatal flaw to the entire system.

If the BRT is forced to compete with and operate in existing traffic flow, bottlenecks will surely develop, resulting in greatly diminished speed and possibly even gridlock. While most of these shared-use segments are within the "In-Town" portion of the project (i.e. Kapiolani Boulevard between Atkinson and Kalakaua, Kapiolani Boulevard between Isenberg and University, along Richards Street, along King Street, etc), it appears that some shared-use segments may also exist, at least temporarily, along the "Regional" portion as well.

To assure that we do not construct a system which simply moves commuters quickly to the next bottleneck, where it will stall in existing traffic, I strongly recommend that the SDEIS:

1) Identify all segments of the BRT (both Regional and In-Town) where the BRT vehicles will be forced to use, share or transition across mixed-use traffic lanes;

2) Analyze possible alternatives to such mixed-use; and

3) Develop and recommend a set of alternatives that assure BRT vehicles an exclusive right-of-way from one end of the system to the other.

E. **Impact of New Developments on the BRT System**

There are locations along or in close proximity to the BRT route where major new developments and land uses have been proposed. While it may be impossible to anticipate all of the potential development or redevelopment sites, the SDEIS should identify and consider the impacts upon the BRT system (both positive and negative) of those developments for which preliminary plans have at least been proposed. Examples of such major projects include the redevelopment of Ford Island and the proposed Outrigger Beachwalk redevelopment.

F. **Update of Financial Analysis**

It is unclear from the language of the Preparation Notice whether or not a full update of the BRT Financial Analysis is proposed as part of the SDEIS. Clearly, given the additional costs associated with the added In-Town and Regional routing, as well as changes to the location and basic designs of the Regional on/off ramps, the overall cost and financial impact of the system will change significantly. Moreover, the additional In-Town routing and the inclusion of the Kamehameha Highway and Farrington Highway transit corridor/BRT spurs will significantly impact estimates of overall system ridership, revenue, and operating costs.

Moreover, the State of Hawaii has recently stated (reference attached State DOT letter of September 18, 2001) that, "*It is not our intent or expectation to provide funding for the BRT project; and have developed our capital improvement programs accordingly.*"

Accordingly, if the Financial Analysis of the Primary Corridor Transportation Project is to be complete and accurate, it must be thoroughly updated to reflect all of the changes and additions to the system that are currently being proposed, as well as review and revise the entire funding scheme based upon the State's non-participation.

I thank you for the opportunity to submit these comments and concerns, and trust that they will be included and appropriately analyzed in the forthcoming SDEIS.

Sincerely,

Gary H. Okino
Councilmember, District VIII

Attachment

AR00016296

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

IN REPLY REFER TO:
DIR 1.042

September 18, 2001

Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Funding for the Bus Rapid Transit Project (BRT)

This is a follow-up to the Policy Committee meeting of September 14, 2001, where we were requested to submit, in writing, our understanding of the funding for the Bus Rapid Transit Project.

We have from the onset expressed our reservations on being able to fund this project, as the statewide needs far exceed our limited resources. More recently, in meetings on the project, we were advised that alternative funding strategies were in place, where Federal Highways (FHWA) and State funds would not be required.

As such, it is not our intent or expectation to provide funding for the BRT project; and have developed our capital improvement programs accordingly.

Very truly yours,

BRIAN K. MINAAI
Director of Transportation

c: Hon. Calvin Kawamoto, Chair
Hon. Duke Bainum, Vice Chair
Hon. Brian Kanno
Hon. Fred Hemmings
Hon. Joseph Souki
Hon. Willie Espero
Hon. Mark Moses
Hon. John Henry Felix
Hon. John DeSoto
Hon. Steve Holmes
Hon. Gary Okino
Mr. Gordon Lum
FHWA
FTA

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" FUKAMOTO
DEPUTY DIRECTOR

TPD9/01-04219R
DART 8080R

March 5, 2002

The Honorable Gary H. Okino
Member, City Council
City and County of Honolulu
Honolulu, Hawaii 96813-3065

Dear Councilmember Okino:

Subject: Primary Corridor Transportation Project

Thank you for your letter of September 19, 2001, regarding the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice for the subject project.

The following responses to your comments are provided by section.

A. Inclusion of the Kamehameha Highway Transit Corridor/BRT Spur and Transit Stations in the SDEIS Analysis

We agree with the working group that establishing preferred transit treatment on Kamehameha Highway is an excellent idea, with or without BRT. Therefore, we are proposing it as a project for concept planning, and future design and construction. We recommend this be done jointly with the transit centers tentatively proposed by the working group. Because these projects have independent utility from the BRT system and can proceed using City CIP funds, it is advantageous for them to proceed into formal planning now.

The Luapele ramp is a recommendation integrally tied to the BRT and, therefore, we have included it in the SDEIS. This approach not only fully complies with the EIS process but is advantageous to accelerating the implementation of the various recommendations.

Having said this, all components of the BRT system are being treated as a whole in the environmental documentation that is being prepared. The FEIS ridership forecasts will reflect the complementary projects recommended by the Pearl City-Aiea working group. Likewise the cumulative impacts of these complementary improvements will be discussed in the FEIS.

B. Farrington Highway Transit Corridor and BRT Spur

A number of possible transit improvements have been offered for Waipahu. One of these would give priority to buses on Farrington Highway. Once a decision is reached on the type of improvement needed, a separate environmental analysis will be done.

C. Agreement of Participation by State and Federal Agencies

Coordination has been continuous and ongoing with the State Department of Transportation and the Navy regarding the zipper lanes, BRT ramps, and related improvements. The worst case scenario would be that we could not build sections where there is no agreement. This would be regrettable, and the public would suffer.

D. Mixed Traffic Impediments to Efficient Regional and In-Town BRT Vehicular Movement

Exclusive right-of-way for BRT vehicles would be ideal from the transit operational perspective. However, through our early outreach program that resulted in the evolution of the BRT project, the community participants provided very clear direction to us about not wanting the cost or the disruptions of the elevated structures that would provide the separate and exclusive right-of-way for transit. Therefore, we are not including an alternative that requires an exclusive/elevated right-of-way for the entire length of the alignment.

Exclusive lanes would be ideal, but are not imperative or even necessary at all times of the day, from initial implementation of the BRT project. This project will be in use for many years into the future. When and where exclusive rights-of-way can be created, including grade separations, travel times would further benefit. We look forward to working with you on any ideas you have for areas where exclusive right-of-way can be developed.

The BRT system strives to strike a balance between transit speed and impacts to general purpose traffic and the community. In segments where it was judged that roadway capacity was needed for general purpose traffic and the impacts to BRT operation would be tolerable, exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes, exclusive transit lanes were retained such as through Kalihi and along Hotel Street in Downtown. We have also retained exclusive lanes where right-of-way is available, such as along Kalia Road.

Chapter 2 of the FEIS will identify where the In-Town BRT travels in exclusive, semi-exclusive and mixed-use lanes. Alternatives to mixed-use lanes have been analyzed. Based on consultation with the public and affected stakeholders, the currently proposed BRT configuration achieves the balance between transit speed and traffic impacts. Delays due to the BRT operating in mixed traffic have been reflected in the BRT operations plan, ridership forecasts, and cost estimates.

The only significant section of the Regional BRT where there will be temporary mixed traffic operations is between Kapolei and Managers Drive. In this section, ridership justifies express lanes. This could be changed at some future time if traffic conditions warrant installation of exclusive lanes.

E. Impact of New Developments on the BRT System

The discussion of land use impacts will be updated in Section 5.1, Land Use and Economic Activity, of both the SDEIS and FEIS. The proposed developments and redevelopments will be included in that discussion. It is true that new developments are constantly proposed, but we have been especially careful to identify all those known at the time of document preparation.

F. Update of Financial Analysis

Chapter 6 of the SDEIS will provide a discussion of the financial analysis for the Primary Corridor Transportation Project. The SDEIS will include costs at the same base year (1998) as the MIS/DEIS, so that the two can be adequately compared. The FEIS will update costs to a new base year (2001).

Councilmember Okino, I want you to know how much we appreciate your insight and support of BRT to ensure that it is of most value to our residents. After you have reviewed our response, we would be pleased to sit down together to discuss overall progress on implementation. I will call you to arrange a meeting.

FORWARDED:

Sincerely,

CHERYL D. SOON
Director

BENJAMIN B. LEE, FAIA
Managing Director

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111
http://www.honolulupd.org
www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

LEE D. DONOHUE
CHIEF

MICHAEL CARVALHO
ROBERT AU
DEPUTY CHIEFS

OUR REFERENCE CS-KP

September 12, 2001

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: LEE D. DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

Thank you for the opportunity to review and comment on the subject project.

The Honolulu Police Department has no comment to offer at this time.

If there are any questions, please call Ms. Carol Sodetani of the Support Services Bureau at 529-3658.

LEE D. DONOHUE
Chief of Police

By
EUGENE UEMURA
Assistant Chief of Police
Support Services Bureau

cc: OEQC

Serving and Protecting with Aloha

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04110R

March 8, 2002

MEMORANDUM

TO: LEE DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

Thank you for your September 12, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

CHERYL D. SOON

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET, SUITE H425 • HONOLULU, HAWAII 96819-1869
TELEPHONE: (808) 831-7761 • FAX: (808) 831-7750 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

ATTILIO K. LEONARDI
FIRE CHIEF

JOHN CLARK
DEPUTY FIRE CHIEF

September 13, 2001

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: ATTILIO K. LEONARDI, FIRE CHIEF

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

We received your memorandum dated August 16, 2001, regarding your request to assess the proposed changes to the Primary Corridor Transportation Project. The proposed changes will not have an adverse impact on the services provided by the Honolulu Fire Department.

Should you have any questions, please call Acting Battalion Chief Lloyd Rogers of our Fire Prevention Bureau at 831-7778.

ATTILIO K. LEONARDI
Fire Chief

AKL/SK:jo

cc: Office of Environmental Quality Control

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04119R

March 8, 2002

MEMORANDUM

TO: ATTILIO K. LEONARDI, FIRE CHIEF
HONOLULU FIRE DEPARTMENT

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

Thank you for your September 13, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

CHERYL D. SOON

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

JEREMY HARRIS, Mayor

EDDIE FLORES, JR., Chairman
CHARLES A. STED, Vice-Chairman
JAN M.L.Y. AMI
HERBERT S.K. KAOPUA, SR.
BARBARA KIM STANTON

BRIAN K. MINAAI, Ex-Officio
ROSS S. SASAMURA, Ex-Officio

CLIFFORD S. JAMILE
Manager and Chief Engineer

September 14, 2001

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: FOR CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER

SUBJECT: YOUR TRANSMITTAL OF AUGUST 16, 2001 OF THE SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank you for the opportunity to review the subject document for the proposed transportation improvements in Oahu's primary transportation corridor.

We have no objections to the proposed modifications to the locally preferred alternative.

We reserve further comments until the Supplemental Draft Environmental Impact Statement is submitted for our review.

If you have any questions, please contact Scot Muraoka at 527-5221.

cc: Office of Environmental Quality Control

Pure Water . . . our greatest need – use it wisely

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04147R

March 8, 2002

MEMORANDUM

TO: CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

Thank you for your September 14, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

CHERYL D. SOON

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4414 • FAX: (808) 527-6743 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

2001/CLOG-3535(RY)

September 19, 2001

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: RANDALL K. FUJIKI, AIA, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

SUBJECT: PREPARATION NOTICE FOR A SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PRIMARY CORRIDOR TRANSPORTATION PROJECT

Thank for providing the DPP the opportunity to comment on revisions to the proposed project. As indicated in our November 16, 2000 memo on the Draft Environmental Impact Statement, the revisions should be coordinated with proposed revisions to the Primary Urban Center and the Central Oahu Development Plans which are presently undergoing major revisions. We offer the following comments for your consideration:

1. Information on relevant alignment and station descriptions, estimated costs and CIP schedules, and implementation schedules for both the In-Town and Regional BRTs should be included where appropriate to determine if Development Plan Public Facilities Map or Public Infrastructure Map amendments will be required before CIP monies for construction and land acquisition are budgeted.

2. The proposed In-Town BRT Branch Alignment includes five proposed stations located in the Chinatown, Hawaii Capital, and the Thomas Square/Honolulu Academy of Arts Special Districts. In Section 3.2.1 - Land Use and Relocation, there should be discussions about any consistency and/or impacts the proposed stations and BRT alignment will have on these special districts regarding their respective district objectives, historic architectural character, landscaping, pedestrian linkages, and view corridors.

3. In Section 3.2.3 - Parks and Recreation Areas, Section 3.2.4 - Archaeological, Historic and Cultural Resources and Section 3.2.5 - Visual and Aesthetic, of the DEIS, there should be discussions regarding any impacts of the proposed stations and alignments on existing parks, streetscape improvements (i.e., curbs, gutters, sidewalks, planting strips, street trees, light standards, and signage), historic structures, and significant sites.

4. In those areas not included in the special districts, it would be helpful to us to have a discussion on impacts the proposed In-Town Branch Alignment will have on existing street trees.

5. Additional permits and/or approvals, other than Special Management Area permits, should be disclosed, i.e., the need for special district permits, waivers, and exemptions as a "public use," and Trenching Permits.

Should you have any questions regarding our comments, please contact Raymond Young of our staff at 527-5839.

Sincerely yours,

RANDALL K. FUJIKI, AIA
Director of Planning and Permitting

RKF:mo
Doc 116158

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04210R

March 8, 2002

MEMORANDUM

TO: RANDALL K. FUJIKI, AIA, DIRECTOR
DEPARTMENT OF PLANNING AND PEMITTING

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

Thank you for your September 19, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
As indicated in our November 16, 2000 memo on the Draft Environmental Impact Statement, the revisions should be coordinated with proposed revisions to the Primary Urban Center and the Central Oahu Development Plans which are prepsently undergoing major revisions.	The project refinements will be coordinated with the Primary Urban Center and the Central Oahu Development Plan updates.
Information on relevant alignment and station descriptions, estimated costs and CIP schedules, and implementation schedules for both the In-Town and Regional BRTs should be included where appropriate to determine if Development Plan Public Facilities Map or Public Infrastructure Map amendments will be required before CIP monies for construction and land acquisition are budgeted.	Chapter 2 of the SDEIS provides alignment and station location descriptions. The Refined BRT Alignment plans are provided in Appendix B. The SDEIS Section 2.3 – Capital Costs and Section 2.4 - Operating and Maintenance Costs provide the cost estimates associated with the proposed project refinements. The SDEIS Section 2.5 Implementation Schedule includes Figure 2.5-1, which presents the proposed schedule for implementing the Refined BRT Alternative components.

The proposed In-Town BRT Branch Alignment includes five proposed stations located in the Chinatown, Hawaii Capital, and the Thomas Square/Honolulu Academy of Arts Special Districts. In Section 3.2.1 – Land Use and Relocation, there should be discussions about any consistency and/or impacts the proposed stations and BRT alignment will have on these special districts regarding their respective district objectives, historic architectural character, landscaping, pedestrian linkages, and view corridors.	Chapter 3 of the SDEIS presents the affected environment associated with the Refined BRT Alternative. The pedestrian discussion in presented in Section 4.6 of the SDEIS. Chapter 5 of the SDEIS discusses the environmental consequences associated with implementing the Refined BRT Alternative. Section 5.4 discusses the visual and aesthetic resources, Section 5.10 discusses the historic and archaeological resources, and Section 5.11 discusses parklands.
In Section 3.2.3 – Parks and Recreation Areas, Section 3.2.4 – Archaeological, Historic and Cultural Resources and Section 3.2.5 – Visual and Aesthetic, of the DEIS, there should be discussion regarding any impacts of the proposed stations and alignments on existing parks, streetscape improvements (i.e. curbs, gutters, sidewalks, planting strips, street trees, light standards, and signage), historic structures, and significant sites.	Chapter 5 of the SDEIS discusses the environmental consequences associated with implementing the Refined BRT Alternative. Section 5.4 discusses the visual and aesthetic resources, Section 5.10 discusses the historic and archaeological resources, and Section 5.11 discusses parklands.
In those areas not included in the special districts, it would be helpful to us to have a discussion on impacts the proposed In-Town Branch Alignment will have on existing street trees.	The SDEIS, Section 3.7.1 – Terrestrial Vegetation summarizes the results of the tree survey conducted since the MIS/DEIS was published. Section 5.7.1 – Impacts and Section 5.7.2 – Mitigation for Trees summarize the potential tree impacts and proposed mitigations for the Refined BRT Alternative.
Additional permits and/or approvals, other than Special Management Area permits, should be disclosed, i.e., the need for special district permits, waivers, and exemptions as a "public use," and Trenching Permits.	The SDEIS, Section 7.5 – Required Permits and Approvals presents the anticipated permits required for implementing the project.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

CHERYL D. SOON

Comments Regarding
Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

September 21, 2001

To: Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

From: J. T. Miller
700 Richards Street, #1909
Honolulu, Hawaii 96813

Subj: Primary Corridor Transportation Project,
Supplemental Draft Environmental Impact Statement

Dear Ms. Soon:

In response to your letter of August 16, 2001, (TPD01-00500), forwarding the subject Supplemental DEIS, the following comments are submitted.

These observations target one segment only of the Primary Corridor Transportation Project; that of:

The In-Town BRT branches serving the Kakaako Branches, both Mauka and Makai. In particular, the routes directed both Mauka and Makai upon Richards Street, from King Street to Halekauwila Street/Ala Moana Boulevard are judged ill conceived as to functional operation and adherence within the framework of impact upon the environment. There are also major unaddressed issues, which require total clarification for a comprehensive, acceptable final DEIS.

The following information is submitted for the review process of this project.

Sincerely,

J. T. Miller
Chairman, Resident Committee to Address Honolulu SDEIS
Harbor Square Condominium Association

Enclosures

Rebuttal to: Section 3. Proposed Impact Studies

3.1 Physical Environment

3.1.1 **Air Quality** As stated, "Mesoscale impacts resulting from the proposed modifications are not expected to be different from what was disclosed in the MIS/DEIS." How can that be determined, when there has been no determination/selection as to the device of transportation, i.e., bus/train. Testing could not be completed until such vehicles are in place, especially on the heavily frequented segment of Richards Street between Queen Street and Ala Moana Blvd, which is lined with tall buildings, (one of which being residential). Further, as stated in Oahu Trans 2K Progress Report #5:

> **Has the technology for the BRT system been selected?**
> Power technologies for the BRT system have not been chosen and will need to be service-proven before they are used in Honolulu. The existing articulated express buses will be able to use the In-Town BRT route until electric vehicles are acquired.

Therefore, utilizing the diesel powered, articulated tractor type buses now in use, with **three lines operating one bus every three minutes, (or 60 buses per hour, or 1 per minute)**, air quality in this downtown canyon would definitely be required data. It is absent.

3.1.2 **Noise and Vibration** The opening statement of this section states that there are no land uses along the proposed In-town BRT alignment that are sensitive to excess noise, "such as residences."

Located at the corner of Richards Street and Halekauwila Street, (the bottleneck in which the three Kakaako lines intersect), stands a 27 story residential building. **(Picture 1)**. All three lines of this referenced BRT pass directly beneath the windows of **EIGHTY (80) bedrooms,** where working people will be trying to sleep at night, so as to be rested for the coming day. **(Picture 2)**

As there has not yet been a selection of the supposedly 'quiet' electric bus, the diesel/tractor buses will be utilized, which are NOTquiet. Because this bottleneck in the route structure, requiring right angle turns of the hinged buses, it will necessitate braking, then powering up again to regain speed, a very noise-generating procedure, which will occur, electric powered or diesel driven.

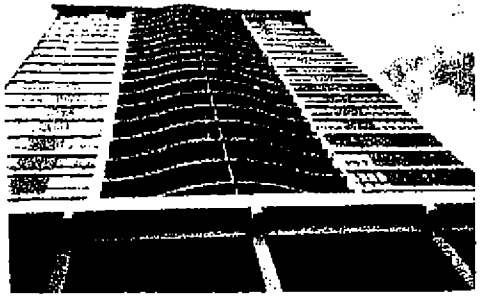
AR00016305

Picture 1

Photo was taken at the corner of Richards Street and Halekauwila Street, at the point where three instersecting BRT lines will come together, proceeding mauka and makai on Richards Street.

Picture 2 was taken from the centerline of Richards Street.

Eighty (80) bedrooms are forty five feet from this centerline.



Picture 2

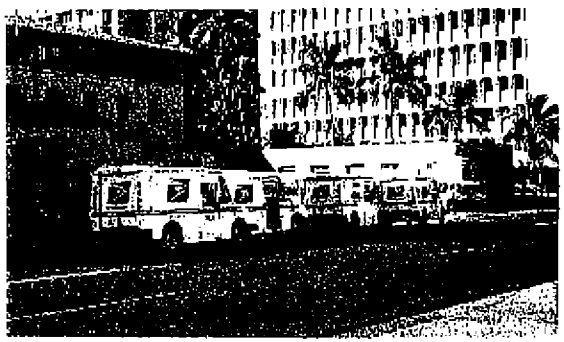
3.2.1 Land use and Relocation "Partial or full displacements of businesses, public facilities, or local organizations would be described, if necessary."

Due to the narrow width of Richards Street, (44 ft.), all onstreet parking will be removed to to accommodate the makai/mauka bus lanes and yet include vehicular traffic entering and exiting the parking structures of the following business buildings between King Street and Halekauwila Street:

The City Bank Building	Six (6) stories of parking
The Melim Building	Five (5) stories of parking
Harbor Square Condominiums	Fourteen (14) levels of parking
Ocean View Center	Six (6) levels of parking
The Haseko Building	Five (5) floors of parking

Located on the Diamond Head side of Richards Street, below Merchant Street, is the U.S., Postal Service marshalling yard, facilitating over 150 mail trucks per day throughout the work week, commencing with a lineup each morning from 8:00 to 9:00 AM of postal vehicles awaiting the deliveries to be dispensed, and at times blocking two lanes, as seen in **Pictures 3 and 4.**

Picture 3



Picture 4

AR00016306

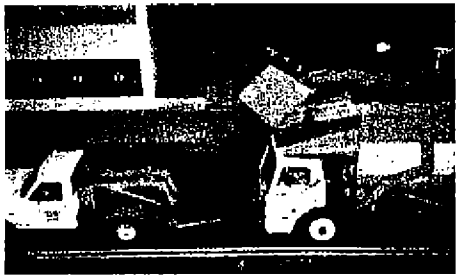
Because of the multiple and varied business utilization on Richards Street, it's narrow width, and the absence of loading docks for both The Melim Building and The OceanView Center, the open street is often utilized for onstreet garbage pickup, moving trucks, courier deliveries, tree trimming and other business requirements. **Pictures 5 thru 8** are examples of daily activity.

Picture 5

Early morning garbage truck pickup

Picture 6

Garbage pickup can close lanes for up to one half hour.

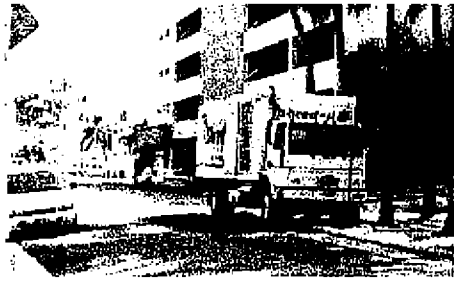


Picture 7

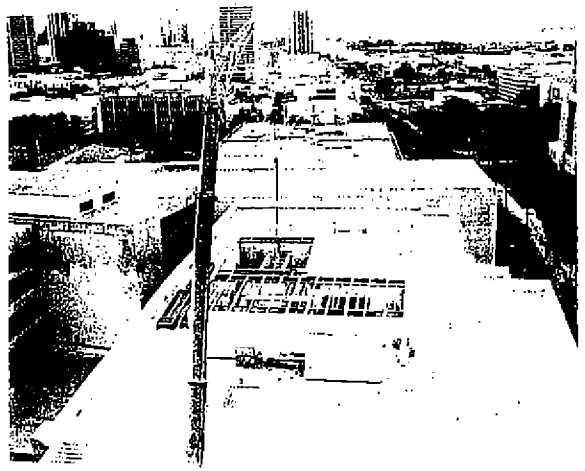
Moving vans can park for up to 6 hours.

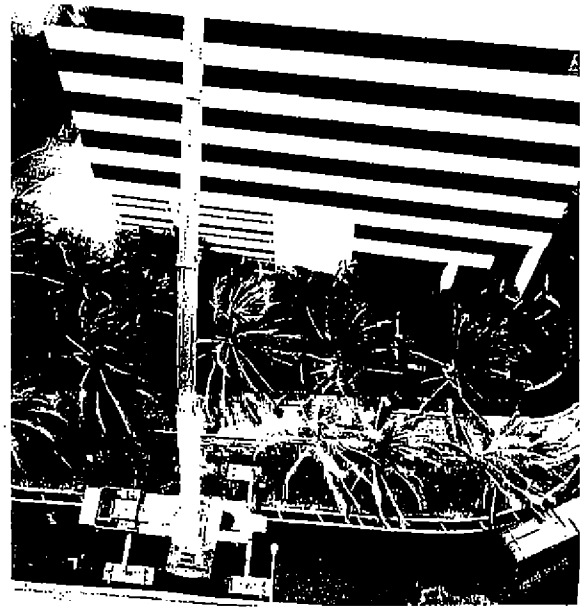
Picture 8

A new necessity for busy offices: The shredder truck will usually park for one half hour.



Picture 9





Rooftop maintenance is periodically required on business buildings on this strip.

Richards Street is the only avenue in which large lifting cranes can be situated to facilitate this need.

On August 11th and 18, 2001, Richards Street was closed from Queen Street to Halekauwila St, from 7:00 AM to 4:00 PM, in order to change the air conditioning units atop the Ocean View Center.

AR00016307

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD9/01-04205R

March 8, 2002

Mr. J. T. Miller
Chairman, Resident Committee to Address
Honolulu SDEIS
Harbor Square Condominium Association
700 Richards Street, #1909
Honolulu, Hawaii 96813

Dear Mr. Miller:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 21, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your comments and our responses are shown on the attached table.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

Attachment

Comment	Response
The routes directed both mauka and makai upon Richards Street, from King Street to Halekauwila Street/Ala Moana Boulevard are judged ill conceived as to functional operation and adherence within the framework of impact upon the environment.	The SDEIS will present the social, economic, and environmental impacts associated with the proposed project refinements. It should be noted that the Kakaako Makai alignment has been refined and will now use the Bishop/Alakea couplet instead of Bishop/Richards from S. King Street to Nimitz Highway.
There are also major unaddressed issues which require total clarification for a comprehensive and acceptable final DEIS.	The SDEIS will present the social, economic, and environmental impacts associated with the proposed project refinements.
3.1.1 Air Quality. As stated "Mesoscale impacts resulting from the proposed modifications are not expected to be different from what was disclosed in the MIS/DEIS." How can that be determined, when there has been no determination/selection as to the device of transportation, i.e. bus/train? Testing could not be completed until such vehicles are in place, especially on the heavily frequentad segment of Richards Street between Queen Street and Ala Moana Blvd., which is lined with tall buildings, (one of which being residential).	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between S. King Street and Nimitz Highway. An air quality, microscale analysis will be done at various intersections, to model the anticipated emissions of the candidate technologies. The analysis will be included in the SDEIS.
Utilizing the diesel powered articulated tractor type buses now in use with three lines operating one bus every three minutes, (or 60 buses per hour, or 1 per minute) air quality in this downtown canyon would definitely be required data. It is absent.	Standard diesel buses are not considered a candidate technology for the In-Town BRT system. Technologies proposed for the BRT Alternative include the Embedded Plate technology which consists of electric vehicles powered by a wayside traction power delivery system or Hybrid Propulsion system where energy for the traction power is carried on-board the vehicle. The Embedded Plate technology vehicles would emit zero pollutants. The hybrid electric vehicles would be low-emission vehicles because their diesel engines would always be operating at

4. Significance Evaluation

No. 6. "The proposed modifications are not expected to cause secondary impacts, such as triggering other actions that would cause environmental or social impacts."

In the meeting of the DTS Bus Rapid Transit team, moderated by City Council Chairman, Yoshimura, with the residents of Harbor Square Condominiums, held at Maritime Museum on 17 September 2001, it was made adamantly clear that the addition of SIXTY double carred transit buses, (ONE per minute!), to the exiting traffic from parking garages on Richards Street would cause insoluble gridlock for area workers and residents.

Further, the DTS BRT team also presented the massive, new intersection devised to handle the out going ridership to Waikiki, and the returning Kakaako Makai Alignment line from Aloha Tower, directed mauka up Richards Street. This radical redesign of the Ala Moana Boulevard/Halekauwila Street/Richards Street juncture is fraught with dysfunction. Beneath the street and islands in this area lies a veritable labyrinth of conduits for:

The Honolulu Electric Company (HECO)
The Board of Water Supply
The runoff drainage system for downtown Honolulu

Within a 100 ft. radius at this intersection, are situated **FIFTEEN** manholes, accessing these vital (and aging)service tunnels beneath the streets. (See below for only 3 of the 15.)

Picture 10

These manholes are utilized regularly, and nearly always requiring the coning of one or two lanes of Ewa bound traffic on Ala Moana Blvd., choking traffic to a crawl. Yet this will be the triangular apex of the Kakaako routing. As ALL Waikiki routing must pass through this bottleneck, either outbound or inbound, it is foreseeable that the Rapid Bus Transit System servicing Waikiki could be brought to a virtual halt.

Unaddressed here is the Environmental Disfigurement in creating this intersection by the removal of eight (8) 30 ft. palm trees and three plumeria trees, the area to be paved over for double car bus transit. The Outdoor Circle and The Sierra Club may find this of interest.

SUMMARY

As presented, the subject Supplemental DEIS will have enormous detrimental environmental impact upon the segment of Richards Street discussed. It will produce traffic congestion, air pollution, noise pollution and finally, unreliable transit service, due primarily to route selection.

The Bus Rapid Transit plan requires a 'slip,' (or connection) from it's main hub, (Hotel/King Streets) to the Waikiki routes. There are at least four alternatives that would better serve this purpose than Richards Street. They are:

- South Street, (an enormously wide avenue, with moderate traffic)
- Punchbowl Street (a wide street which could also service the Judicial District.)
- Mililani Street (literally unused except for skateboarders and hot dog stands)
- Bishop Street (remove onstreet parking/install dedicated RT lanes)

The Downtown Neighborhood Board, a representative body elected by the people, has voted unanimously against the use of Richards Street as a route for the proposed transit plan. And the majority of residents and businessmen of this area are opposed to it as well. It is our earnest hope that these objections to the degradation of our environment will be studied and incorporated into a more optimal routing of the Bus Rapid Transit plan.

. . .

AR00016309

Comment	Response
	efficient levels. Since the BRT Alternative would use either zero or low-emission vehicles, it would substantially reduce the level of particulate emissions (black smoke and soot) at certain intersections and street level locations in comparison to the No-Build and TSM Alternatives, which would continue to use diesel buses. An air quality, microscale analysis will be included in the SDEIS at particular intersections.
Section 3.1.2 Noise and Vibration The opening statement of this section states there are no land uses along the proposed In-Town BRT alignment that are sensitive to excess noise such as residences. Located at the corner of Richards and Halekauwila Street, (the bottleneck which the three Kakaako lines intersect), stands a 27 story residential building. All three lines of his reference BRT pass directly beneath the windows of eighty (80) bedrooms, where working people will be trying to sleep at night, so as to be rested for the coming day.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between S. King Street and Nimitz Highway. Existing noise measurements will be included in the SDEIS and Harbor Square because it includes residences has been included as a site for the noise measurements.
Because this bottleneck in the route structure, requiring right angle turns of the hinged buses, it will necessitate braking, then powering up again to regain speed, a very noise-generating procedure, which will occur, electric powered or diesel driven.	In general, the future noise levels would be lower with the BRT Alternative than with the TSM and No-Build Alternatives. This is due to the use of the quieter electric or hybrid diesel/electric vehicles in the In-Town portion of the BRT Alternative, versus diesel buses operating in the TSM and No-Build alternatives. No vibration impacts are expected. The Embedded Plate Technology would generate minimal noise because its source of energy would be the power strip embedded in the street. The Hybrid Propulsion system

Comment	Response
	vehicles would also be relatively quiet due to its efficient use of fuel. For example, the spurt of higher electric power needed for acceleration is taken mainly from the batteries.
Due to the narrow width of Richards Street (44ft), all on street parking will be removed to accommodate the makai/mauka bus lanes and yet include vehicular traffic entering and exiting the parking structures of the following business buildings between King Street and Halekauwila Street. (Buildings listed).	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between S. King Street and Nimitz Highway.
Located on the Diamond Head side of Richards Street, Below Merchant Street, is the U.S. Postal Service marshaling yard, facilitating over 150 mail trucks per day throughout the work week, commencing with a lineup each morning from 8:00 to 9:00 am of postal vehicles awaiting the deliveries to be dispensed, and at times blocking two lanes.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between S. King Street and Nimitz Highway.
Because of multiple and varied business utilization on Richards Street, it's narrow width, and the absence of loading docks for both he Melim Building and the Ocean View Center, the open street is often utilized for on street garbage pickup, moving trucks, courier deliveries, tree trimming, and other business requirements.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between S. King Street and Nimitz Highway.
In the meeting of the DTS Bus Rapid Transit team, moderated by City Council Chairman Yoshimura, with the residents of Harbor Square Condominiums, held at Maritime Museum on 17 September 2001, it was made adamantly clear that the addition of sixty double carred transit buses, (one per minute), to the existing traffic from parking garages	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between S. King Street and Nimitz Highway.

Comment	Response
on Richards Street would cause insoluble gridlock for area workers and residents.	
This radical redesign of the Ala Moana Boulevard/Halekauwila Street/Richards Street juncture is fraught with dysfunction. Beneath the street and islands in this area lies a veritable labyrinth of conduits for: The Honolulu Electric Company (HECO), the Board of Water Supply, and the runoff drainage system for downtown Honolulu.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between S. King Street and Nimitz Highway. The two candidate technologies, the Embedded Plate System and the Hybrid Propulsion System, both provide the flexibility to operate outside of the designated BRT lanes and therefore can easily maneuver around construction areas, emergency vehicles, and traffic. The BRT Alternative itself would affect few major utilities but many minor ones, particularly if the embedded-plate technology is selected. Coordination with utility providers during planning, final design, and construction would identify problems and provide opportunities to resolve them prior to construction
Within a 100 ft. radius at this intersection, are situated fifteen manholes, accessing these vital (and aging) service tunnels beneath the streets. These manholes are utilized regularly, and nearly always requiring the coning of one or two lanes of Ewa bound traffic on Ala Moana Blvd., choking traffic to a crawl. Yet this will be the triangular apex of the Kakaako routing.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between S. King Street and Nimitz Highway The two candidate technologies, the Embedded Plate System and the Hybrid Propulsion System, both provide the flexibility to operate outside of the designated BRT lanes and therefore can easily maneuver around construction areas, emergency vehicles, and traffic. The BRT Alternative itself would affect few major utilities but many minor ones, particularly if the embedded-plate technology is selected. Coordination with utility providers during planning, final design, and construction would identify problems and

Comment	Response
	provide opportunities to resolve them prior to construction.
As all Waikiki routing must pass through this bottleneck, either outbound or inbound, it is foreseeable that the Rapid Bus Transit System servicing Waikiki could be brought to a virtual halt.	The two candidate technologies, the Embedded Plate System and the Hybrid Propulsion System, both provide the flexibility to operate outside of the designated BRT lanes and therefore can easily maneuver around construction areas, emergency vehicles, and traffic.
Unaddressed here is the environmental disfigurement in creating this intersection by the removal of eight 30 ft. palm trees and three plumeria trees, the area to be paved over for double car bus transit.	If this comment is referring to the trees located at the juncture of Ala Moana Blvd./Halekauwila St./Richards St., these trees will not be affected since the BRT alignment has been revised to be on Alakea Street.
As presented, the subject Supplemental DEIS will have enormous detrimental environmental impact upon the segment of Richards Street discussed. It will produce traffic congestion, air pollution, noise pollution, and finally, unreliable transit service, due primarily to route selection.	The BRT alignment has been revised to travel on Richards Street between Hotel Street and S. King Street.
There are at least four alternatives that would better serve this purpose than Richards Street. They are: South Street, Punchbowl Street, Mililani Street, and Bishop Street.	The BRT alignment traverses Bishop Street makai-bound. Punchbowl Street and Mililani Street were previously considered and eliminated. South Street was not considered due to its far proximity to downtown.
The Downtown Neighborhood Board, a representative body elected by the people, has voted unanimously against the use of Richards Street as a route for the proposed transit plan. And the majority of residents and businessmen of this area are opposed as well.	Objections to the BRT alignment on Richards Street are noted. The alignment has been refined to operate on Alakea Street between S. King Street and Ala Moana Blvd.

AR00016311

Kakaako Improvement Association
P.O. Box 3776 Honolulu, Hawai'i 96812

September 21, 2001

Mrs. Cheryl D. Soon, Director
Department of Transportation Services
City & County of Honolulu
711 Kapiolani Boulevard, Ste. 1200
Honolulu, Hawaii 96813

Re: Primary Corridor Transportation Project – Supplemental EIS Commentary

Dear Mrs. Soon:

The Kakaako Improvement Association submits the following comments for the supplemental EIS process for the Primary Corridor Transportation Project specifically concerning the BRT routes through Kakaako:

Referencing the presentation you made to KIA on June 13, 2001, we are in agreement that the 3 planned routes will effectively service our community. However, if the Kakaako Makai route is at any time deleted from existing plans, we would like to suggest the following changes:

a. BRT Kakaako – Manoa Branch: The originally proposed route travels east on Halekauwila, turns right on South St., turns left on Pohukaina, turns right on Kamani then turns left on Auahi and travels to the Queen St. stub off Ala Moana Boulevard. This turn-interrupted route would serve the proposed goals better if it used fewer streets and provided a more direct route through Kakaako. In addition, the route is on the perimeter of the "critical mass" that any transit line would service. KIA proposes to locate the route more in the center of this "critical mass" and provide a more efficient and direct route through Kakaako as follows: To continue makai on South St. to Auahi St. turning left on Auahi and traveling straight on Auahi all the way to the Queen St. stub off Ala Moana. In this closer proximity to the "critical mass" of the Ala Moana Boulevard area and in providing a straighter route through Kakaako (thus utilizing fewer individual streets), this proposed route reduces the environmental impact of the project.

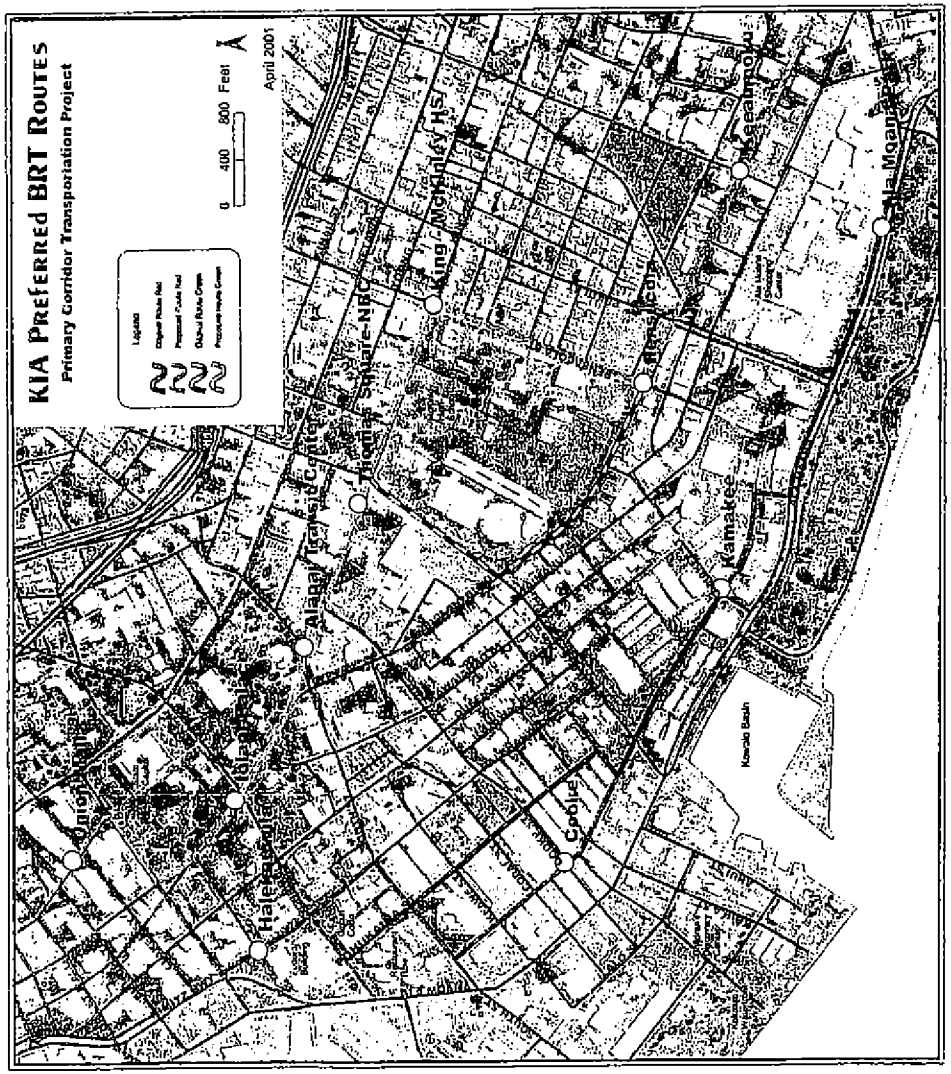
b. BRT Kakaako-UH-Manoa Branch: To avoid possible congestion from putting the BRT on Ward Ave. (at King St.) and making a 90 degree turn at the busy intersection of Ward and Kapiolani, KIA proposes that the route continue on King St. to Pensacola, then turn right and make the left turn onto Kapiolani Boulevard at Pensacola. This would not only enhance the operation of the BRT, but would avoid potential traffic congestion at Ward and Kapiolani.

A sketch-map of the proposed new routing is enclosed.

Very truly yours,

Beverly W. Harbin
President

cc: OEQC
Parsons, Brinckerhoff Quade and Douglas, Inc.



AR00016312

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD02-00132

March 8, 2002

Ms. Beverly W. Harbin
President
Kakaako Improvement Association
P. O. Box 3776
Honolulu, HI 96812

Dear Ms. Harbin:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 21, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
We are in agreement that the three planned routes will effectively service our community. However, if the Kakaako Makai route is at any time deleted from existing plans, we would like to suggest the following changes:	Thank you for your comment.
BRT Kakaako-Mauka Branch: KIA proposes to locate the route more in the center of this "critical mass" and provide a more efficient and direct route through Kakaako as follows: to continue makai on South St. to Auahi St. turning left on Auahi and traveling straight on Auahi all the way to the Queen Street stub off Ala Moana. In this closer proximity to the "critical mass" of the Ala Moana Boulevard area and in providing a straighter route through Kakaako (thus utilizing fewer individual streets), this proposed route reduces the environmental impact of the project.	The proposed Kakaako Makai Branch would provide convenient access to the "critical mass" area of Ala Moana Boulevard. The branch would operate along Halo Street, one block in the makai of Ala Moana Boulevard. Transit stops would be located at Coral Street and Ahui Street providing easy access to the businesses along Ala Moana Boulevard.

Comment	Response
BRT Kakaako-UH-Manoa Branch: KIA proposes that the route continue on King Street to Pensacola, then turn right and make a left turn onto Kapiolani Boulevard at Pensacola. This would avoid potential traffic congestion at Ward and Kapiolani.	One of the proposed modifications to the BRT Alternative is to realign a portion of the Kakaako-UH Manoa branch as suggested. The branch would continue along South King Street to Pensacola Street to Kapiolani.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

Cheryl D. Soon
Director

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

GEN-6 (EIS/EA)

October 4, 2001

Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Ms. Cheryl D. Soon

Subject: **Primary Corridor Transportation Project**

Thank you for the opportunity to comment on the August 2001 Supplemental DEIS for the Primary Corridor Transportation Project, as proposed by the Department of Transportation. We have reviewed the subject document and have no comments at this time.

HECO shall reserve further comments pertaining to the protection of existing powerlines bordering the project area until construction plans are finalized. Again, thank you for the opportunity to comment on this Supplemental DEIS.

Sincerely,

Kirk Tomita
Senior Environmental Scientist

WINNER OF THE EDISON AWARD
FOR DISTINGUISHED INDUSTRY LEADERSHIP

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP10/01-04463R

March 8, 2002

Mr. Kirk Tomita
Senior Environmental Scientist
Hawaiian Electric Company, Inc.
P. O. Box 2750
Honolulu, Hawaii 96840-0001

Dear Mr. Tomita:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your October 4, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

Koby, Ann

From: Miyamoto, Faith [fmiyamoto@co.honolulu.hi.us]
Sent: Wednesday, August 22, 2001 6:57 PM
To: Ann Koby (E-mail); Susan Killen (E-mail)
Subject: SDEIS Preparation Notice

Hi Ann and Susan -

Received our first comment on the SDEIS Preparation Notice from Lynne Matusow. In Section 2.1, in the description of the Kakaako Makai alignment, we say that currently the alignment goes on the Hotel Street Mall until the split at North King Street and Richards Street. King Street in that area is South King Street. Please note this error. Thanks.

Faith Miyamoto
Department of Transportation Services
City & County of Honolulu
(808) 527-6976
fmiyamoto@co.honolulu.hi.us

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE 'KEOKI' MIYAMOTO
DEPUTY DIRECTOR

TPD02-00131

March 8, 2002

Ms. Lynne Matusow, Chair
Downtown Neighborhood Board No. 13
Neighborhood Commission
Honolulu Hale
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Ms. Matusow:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your August 22, 2001 phone call regarding the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. During that phone conversation with Faith Miyamoto, you advised that the Preparation Notice Section 2.1 – describing the Kakaako Makai Bus Rapid Transit alignment stated that the alignment currently travels on the Hotel Street Mall until the split at North King Street and Richards Street. You advised that King Street in this area is South King Street. This has been revised.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

From: Lee Manfredi, Secretary
Board of Directors
Waialae-Kahala Neighborhood Board, No.3
4134-1 Keanu Street
Honolulu, HI 96816
Tel./Fax: (808) 735-8466

To: Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813
Tel.: (808) 523-4529 Fax: (808) 523-4730
Internet: www.co.honolulu.hi.us

Refer: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Dear Ms. Soon, September 21, 2001

On behalf of the Waialae-Kahala Neighborhood Board, I have reviewed the Supplemental DEIS Preparation Notice that was sent to the Waialae-Kahala Neighborhood Board, dated August 16, 2001. I have reviewed the proposed modifications and impact studies and find the proposals acceptable. I have no recommendations for changes to the proposals at this time.

There was a comment repeated by several residents: the projects seemed hopeful but there were some basic problems still unanswered; where the project involved utilizing arterial streets, those streets have speed limits that are out of date with the current use and design of those streets. There are speed limits set at 25 or 30 MPH on streets and roadways that should be upped to at least 35 to 40 MPH, and 40 that should be upped to 45 MPH. These roadways with the low speed limits appear before or after a freeway entry or exit, i.e., Kalanianaole Highway east bound toward Aina Haina.

Also, the intersection traffic lights are not synchronized at all anywhere. Huge traffic jams are further exasperated when the traffic lights run independently of each other, i.e., Beretania Street westbound toward downtown. In other cities like San Francisco and Chicago where mass transit is widely accepted and utilized, traffic lights are synchronized for efficient and expedient vehicular movement. Hawaii's traffic light management is a joke that some residents say, there isn't any, really. Why has there not been an attempt to address these two problems? These were comments that I thought I'd pass on to you.

Sincerely yours,

Lee Manfredi

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04229R

March 8, 2002

Ms. Lee Manfredi, Secretary
Waialae-Kahala Neighborhood Board No. 3
4134-1 Keanu Street
Honolulu, Hawaii 96816

Dear Ms. Manfredi:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 21, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
I have reviewed the proposed modifications and impact studies and find the proposals acceptable. I have no recommendations for changes to the proposals at this time.	Thank you for taking the time to review the SDEISPN.
Where the project involved utilizing arterial streets, those streets have speed limits that are out of date with the current use and design of those streets. There are speed limits set at 25 or 30 MPH on streets and roadways that should be upped to at least 35 to 40 MPH, and 40 that should be upped to 45 MPH. These roadways with the low speed limits appear before or after a freeway entry or exit, i.e. Kalanianaole Highway east bound toward Aina Haina.	It is not within the scope of the Primary Corridor Transportation Project to reset speed limits on arterial streets.

The intersection traffic lights are not synchronized at all anywhere. Huge traffic jams are further exasperated when the traffic lights run independently of each other, i.e. Beretania Street westbound toward downtown.	Signal coordination along the BRT alignments will be reviewed and optimized.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

September 7, 2001

Ms. Donna Turchie
Senior Transportation Representative
Region IX
Federal Transit Administration
U.S. Department of Transportation
201 Mission Street, Suite 2210
San Francisco, California 94105-1839

Dear Ms. Turchie:

Subject: Primary Corridor Transportation Project
Major Investment Study/Draft Environmental Impact Statement

S.1 NEED FOR ACTION

Every resident including participants of the Oahu Trans 2K workshops agree that Oahu's traffic is a problem. Most feel strongly that proposed improvements must be reasonably affordable and willingly to pay for an alternative that will work and help with the ever increasing traffic congestion. But significantly will say "no" if they really know that an In-Town alternative will increase traffic congestion. The purpose of the Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) is to examine a range of alternative investments and identify the one that would most efficiently and effectively improve both the transportation system in the primary transportation corridor and the connections between the corridor and the rest of the island.

1. Increase the people-carrying capacity of the transportation system in the primary transportation corridor by providing attractive alternatives to the private automobile

With the number of people living and working in Honolulu's urban core, a significant and key strategy is to get people out of their cars while they move around the city. It requires alternative modes such as walking, bicycling and using public transit that is "rapid" and to avoid "at-grade" traffic situations that are frequent on the road system. Reducing congestion will decrease the time transport trucks find themselves caught in traffic, which will in turn lower the cost of consumer goods they deliver. And keeping our vehicles moving instead of "traffic-jammed" means we'll spend less time fouling the air and wasting expensive fuel.

For many, the biggest bonus will be having no need to waste time looking for a parking spot. A "rapid" alternative transit system should never be stopped by traffic jams, accidents, pedestrians, emergencies or construction of infrastructure repairs below or at-grade of our street rights-of-way.
The transit system must be made convenient for the user, offering rapid and dependable travel times to effectively take more automobiles off our streets. If public transit is not "rapid" and convenient less cars will be taken off our streets and highways. It will not be an attractive alternative to automobile travel and the public will eventually roar with disapproval and complain to responsible City Council members and State officials to the chosen transit alternative.

S.2 ALTERNATIVES CONSIDERED and NOT CONSIDERED

S.2.1 Summary of Alternatives

The 21st Century Oahu Visioning process began in September 1998 and consisted of a series of neighborhood-based community meetings designed to enhance public input in planning the vision for Oahu communities.

After Rounds 1 and 2 of the Oahu Trans 2K meeting, public and agency input was combined with technical analysis to define an initial set of alternatives. Only No-Build, Enhanced Bus/Transportation System Management (TSM), Bus Rapid Transit (BRT), and Light Rail Transit (LRT) were considered. *A cost-effective shorter grade-separated light rail alternative most over existing street rights-of-way was not included* to be an alternative for the In-Town portion. A suggested grade-separated light rail alternative shorter than the proposed In-Town BRT with a length of approximately 7.70 miles from the proposed Middle Street Transit Station could have been included for the In-Town portion and terminating in the University of Hawaii Quarry. Light Rail Transit is defined as a transit mode characterized by its ability to operate in both at-grade and/or grade-separated environment, and usually operating in smaller trains consisting of 2, 4, or 6 vehicles. As the chosen Locally Preferred Alternative (LPA) the last time and within the last ten years it should have been again naturally included, for comparison, once and for all to see and comment on.

There was no actual vote taken for a choice of a public transit alternative among the participants at these Oahu Trans 2K meetings except for individuals who wanted to express, in their own words, at these meetings or chose to put their thoughts in written form, which were few, as public records will show if any were kept. Individuals representing several environmental and community organizations were at these meeting who spoke up quite a bit.

However, the amended locally preferred alternative (LPA) back in 1992 was for a grade-separated aerial structure with an alignment of 15.9 miles long with 22 transit stations. The State Legislature enabled the City Council to levy a 0.5% surcharge on the local General Excise and Use Tax. However, the City Council by a single vote did not enact this General Excise Tax surcharge to ensure the local share of funding for the project although City Council previous actions were favorable to implementation of the project. It would be built today and running if the vote was different.

Active public involvement is critical to the success of any project with significant impact on the community. The process should ensure that critical community concerns and technical issues are identified early in the study and addressed in the engineering, environmental, economic, and financial analyses, so alternatives and ultimately the locally preferred alternative effectively responded to community needs and preferences and satisfy local, State, and federal environmental clearance requirements. Was it a done deal to guide the process from the beginning by the city's Department of Transportation and its hired consultants to put the Bus Rapid Transit (BRT) as a preferred final choice somehow by eliminating a superior grade-separated light rail alternative?

So the grade-separated amended locally preferred alternative (LPA) which included a corridor for the Honolulu Rapid Transit Program began from the vicinity of Waiawa and follows Kamehameha Highway until passing Honolulu International Airport and follows Dillingham Boulevard into the Central Business District (CBD). The guideway then goes along Nimitz Highway, follows Halekauwila Street, Ward

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Avenue, Waimanu Street, and Kona Street to the Ala Moana Center. The alignment continues along Kona Street, Atkinson Drive, and Kapiolani Boulevard to University Avenue, terminating at the University of Hawaii Quarry.

The Final Environmental Impact Statement (FEIS) will show local citizens significantly supported the rapid transit proposal as the locally preferred alternative (LPA). Chapter 7, Comments and Responses, within the document list the record of substantive comments received on the Alternative Analysis/Draft Environmental Impact Statement (AA/DEIS) and the Supplemental Draft Environmental Impact Statement (SDEIS) during the public comment period and responses to those concerns. Both written and oral comments provided at the public hearings are included.

S.3 IMPACTS AND MITIGATION

The transportation analyses indicated that major regional roadways would still have traffic bottlenecks in 2025 under any of the alternatives. According to a U.S. Department of Transportation, Federal Transit Administration website: http://www.fta.dot.gov/research/pdf/iibrt.pdf there are problems of arterial bus priority treatments (Bus Rapid Transit).

Extensive development of High Occupancy Vehicles (HOV) lanes in the case of busways to improve bus service on the highways connecting suburban and downtown areas represent a significant effort which is similarly proposed in our Primary Corridor Transportation Project. However, providing high quality service within the downtown sections of metropolitan areas like Honolulu which is the key to the Bus Rapid Transit concept has not been the subject of a comparable effort in the rest of the U.S. Mobility within congested urban centers like Honolulu is essential to support economic and social functions of the city and to sustain high levels of transit ridership.

In most cities including Honolulu, a number of factors can impede the upgrading of rights-of-way to provide for exclusive bus lanes on our local city streets. The most basic obstacle to creating a bus lane in Honolulu is the lack of an adequate cross section to separate buses from general-purpose traffic. At a minimum, bus lanes require an 11-foot cross section per direction. On most major two-way streets in Honolulu, the creation of even a single bus lane will limit at least one direction of general-purpose traffic to a single lane, likely producing serious adverse consequences for general-purpose traffic. Wide one-way streets, which we don't have, can provide opportunity to dedicate a lane for exclusive bus use although this too will produce adverse effects on general-purpose traffic flows and scarcity of on-street parking spaces.

Locating a bus lane along a curb or in the median of a two-way street conflicts are created with right- or left-turning vehicles. The need to allow general-purpose traffic to use a bus lane for turning interferes with bus operations, increasing travel time and adding to problems of enforcing the restriction of the lane to buses under all other circumstances. Curbside parking by emergency, delivery and service vehicles also obstructs bus movement and is particularly disruptive if the bus lane is restricted to a single lane width. Dual bus lanes are superior to single-width lanes but obviously require a wider cross-section (right-of-way) which Honolulu does not have in most cases. A drawback of median bus lanes is that passengers must walk across general-purpose traffic lanes to reach the bus stop.

Because of the existing cross-section of most streets (rights-of-way) are very narrow the geometry does not allow queue bypass lane segments. These "queue jumps" allow buses to circumvent traffic at an

intersection approach and thereby allow for faster average traveling times. A major limitation on bus signal preference is the adverse effect associated with reduction of green signal time for general-purpose traffic on the cross streets. Honolulu cross streets are much closer on the average in comparison with larger mainland cities. The constraints imposed by traffic signal progression will limit effective application of signal preemption along the In-Town portion of the corridor.

There is a trade-off between the improvement in travel times that can be achieved by reducing the number of bus stops in a BRT versus a conventional bus service with convenient access made possible by frequent stops. Because of the use of narrow platforms because of very narrow street rights-of-way the so-called transit stations will not eliminate the need to restrict boarding to the front door of the bus which takes additional time.

A potential option for doing away with a variety of physical constraints on boarding would be greater use of enclosed bus waiting transit facilities where passenger would be required to enter waiting areas in advance to allow boarding through all doors of the bus. All passengers could pay fares within the boarding areas before boarding the bus, thus reducing bus dwell times. However, because of the cross-section (rights-of-way) width of all our streets makes it rare and impractical. Enclosed boarding areas take up significant sidewalk space and capital, operating and maintenance cost. Thus conventional boarding procedures would continue at most stations which will increase bus travel times along the corridor.

System integration becomes an issue when the need to provide transfers between routes and other forms of public transportation where passengers pay fares at these transfer points with on board payment. Another concern is when specialized vehicle boarding features designed to be compatible with platforms in enclosed areas may impose constraints on the deployment of a transit system's vehicle fleet.

S.3.1 Transportation Impacts

The Draft Environmental Impact Statement (DEIS) does not give details on the impact with the loss of one and in most cases two lanes of multi-purpose traffic lanes within the proposed corridor. Giving priority to the proposed BRT will cause additional delays at cross streets and pedestrian cross-walks creating additional traffic congestion at these locations. With our cross streets at these intersections much closer than most other U.S. cities this problem is not addressed satisfactorily. If the existing rights-of-way could accommodate an additional BRT lane both ways to allow a minimum of two lanes of multi-purpose automobile traffic each way I would see much more success for the In-Town Bus Rapid Transit portion for the Primary Corridor Transportation Project for the City and County of Honolulu than currently.

Transit Supply

Further more a grade-separated light rail system would do the most to improve the capacity of the transportation system to carry people through Honolulu as the population thrives through 2025. Many of the factors that motivate consumer buying decisions also influence transportation choices. Improved access to a transit system (car or bus) combined with the knowledge that a grade-separated light rail system is always available and "rapid" with the capability of being available as much as one and a half minute apart during peak hours and also available as "rapid" during off-peak hours as fast as four to five minutes apart because of its own guideway and lowest operating cost of any transit alternative.

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no moving parts and rarely need maintenance, and needing far less energy than other rapid transit systems making it one of the most reliable in the world. It can be far quieter than the system proposed as the locally preferred alternative (LPA) in the FEIS for the Honolulu Rapid Transit Program of July 1992. The frequency of the automated and driverless transit vehicles can run as frequently as one-and-a-half minutes apart. Special events within the CBD, Waikiki, University of Hawaii and other sites will be provided with a "rapid" transportation alternative unlike a BRT which is slow with an average of 8 minutes or more between vehicles during peak times with the necessity of drivers for each vehicle and thereby added labor cost.

Instead of waiting on platforms, this "rapid" transit alternative gets moving quickly, especially at night, when we don't want to wait a long time to get on the train. It can run about every five minutes at night, and do so without significant added costs or faster if needed.

A grade-separated light rail system cost less in the long term and offers great benefits. It will require a larger initial investment, but benefits are well worth it: speed, reliability, capacity and comfort. It can move more people than competing technologies due to these benefits the operating costs are lower than other rapid transit systems and that mean lower costs well into the future. Because of a shorter grade-separated light rail transit system than previously suggested in 1992 will make this In-Town portion much more an affordable one and the best choice to make more people use this "rapid" alternative than a much slower bus rapid transit system alternative.

By not being part of the problems on the streets is most assured than the proposed In-Town BRT which hasn't really addressed the additional traffic congestion it will create due to the loss of one and most cases two multi-purpose traffic lanes and proposed shorter green light times for the cross streets along the proposed corridor. The lack of a sufficient cross-section width of most of our existing street rights-of-way will contribute significantly, when implemented, to our traffic congestion almost immediately rather than help it.

Using Traffic Summary Information made available by the State of Hawaii, Department of Transportation, Highways Division, which was prepared by the Planning Branch in cooperation with the U.S. Department of Transportation, Federal Highway Administration will show immediate and additional traffic congestion where the In-Town BRT will have exclusive or near-exclusive use of lanes formerly used by multi-purpose traffic.

Screen lines properly selected along natural barriers to traffic within a city provide a means of checking the number and types of vehicles moving from one part of the city to the other across the screen lines.

To function properly, a screen line must extend entirely across the city. It should be reasonably straight or at least so located with respect to existing thoroughfares as to minimize the possibility of trips crossing the line twice. It should also intercept large volumes of traffic, but should not pass directly through the central business district.

There are four such screen lines in the city of Honolulu: *Selected

1. *Kalihi Stream Screen Line
2. *Kapalama Drainage Canal Screen Line
3. Nuuanu-Wuolani Streams Screen Line

4. *Manoa-Palolo Drainage Canal Screen Line

Their vehicular records are shown in the following page(s) on a CD-Rom disc which is powered by an included software program called PaperVision ER, Version 9.0. For simplicity only some the facilities are used and listed which will show that existing multi-purpose traffic in the proposed BRT corridor, as well as around and near the same, will be changed significantly because of the loss of one or more multi-purpose traffic lanes and the action will be cumulative.

Using Dillingham Boulevard, as an example, in the years of 1998 and 1999, you can see the 24-Hour Traffic Volumes, as shown below, from Traffic Summaries. What will the loss of 50% of the multi-purpose traffic lanes on Dillingham Boulevard create as a result? Obviously major streets nearby have to make up the loss like School Street, King Street, and Nimitz Highway. We will see increase in multi-purpose traffic volume in both easterly and westerly directions as well as nearby northerly and southerly directions and additional traffic congestion. Existing cross streets within and around the Central Business District (CBD) will also be significantly affected by shorter green light times and more traffic and pedestrian congestion.

Also from the same source of information, available only on a CD-ROM disc, beginning this year for years 1998 and 1999 Traffic Summaries, Island of Oahu, are Traffic Counts for the Manoa-Palolo Drainage Canal - Ala Wai Canal Screen Line Counts - 24-Hour Traffic Volumes. What will happen with the loss of multi-purpose traffic lanes in each direction on this portion of Ala Moana Boulevard at the Ala Wai Bridge to accommodate the BRT?

Obviously multi-purpose traffic lanes within the corridor here for the BRT as well as those nearby and adjacent will experience additional traffic congestion. With the loss of multi-purpose traffic lanes traffic volumes on nearby and adjacent major streets will increase to adjust to the current number of cars that use Ala Moana Boulevard. Constant monitoring of exclusive BRT lanes for compliance of non-use by multi-purpose traffic will be a continuing problem as well as respect by pedestrians to traffic signals when crossing multi-purpose traffic lanes to get to bus stops.

1998 and 1999 24-HOUR TRAFFIC COUNT- STATION SUMMARY
Source: Traffic Summary, Island of Oahu
State of Hawaii, Department of Transportation, Highways Division
Prepared By The PLANNING BRANCH in cooperation with the
U.S. Department of Transportation, Federal Highway Administration

Comparison of Kalihi Stream Screen line Counts – 24-Hour Traffic Volumes, *Selected

Station Number	Facility	1998 Total	1998 East	1998 West	1999 Total	1999 East	1999 West
SL-10	* Nimitz Highway	79,733	41,245	38,488	84,160	43,950	40,210
SL-11	* Dillingham Blvd.	39,828	22,785	17,043	38,943	20,734	18,209
SL-12	* King Street	26,127	15,427	10,700	24,321	14,186	10,135

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no moving parts and rarely need maintenance, and needing far less energy than other rapid transit systems making it one of the most reliable in the world. It can be far quieter than the system proposed as the locally preferred alternative (LPA) in the FEIS for the Honolulu Rapid Transit Program of July 1992. The frequency of the automated and driverless transit vehicles can run as frequently as one-and-a-half minutes apart. Special events within the CBD, Waikiki, University of Hawaii and other sites will be provided with a "rapid" transportation alternative unlike a BRT which is slow with an average of 8 minutes or more between vehicles during peak times with the necessity of drivers for each vehicle and thereby added labor cost.

Instead of waiting on platforms, this "rapid" transit alternative gets moving quickly, especially at night, when we don't want to wait a long time to get on the train. It can run about every five minutes at night, and do so without significant added costs or faster if needed.

A grade-separated light rail system cost less in the long term and offers great benefits. It will require a larger initial investment, but benefits are well worth it: speed, reliability, capacity and comfort. It can move more people than competing technologies due to these benefits the operating costs are lower than other rapid transit systems and that mean lower costs well into the future. Because of a shorter grade-separated light rail transit system than previously suggested in 1992 will make this In-Town portion much more an affordable one and the best choice to make more people use this "rapid" alternative than a much slower bus rapid transit system alternative.

By not being part of the problems on the streets is most assured than the proposed In-Town BRT which hasn't really addressed the additional traffic congestion it will create due to the loss of one and most cases two multi-purpose traffic lanes and proposed shorter green light times for the cross streets along the proposed corridor. The lack of a sufficient cross-section width of most of our existing street rights-of-way will contribute significantly, when implemented, to our traffic congestion almost immediately rather than help it.

Using Traffic Summary Information made available by the State of Hawaii, Department of Transportation, Highways Division, which was prepared by the Planning Branch in cooperation with the U.S. Department of Transportation, Federal Highway Administration will show immediate and additional traffic congestion where the In-Town BRT will have exclusive or near-exclusive use of lanes formerly used by multi-purpose traffic.

Screen lines properly selected along natural barriers to traffic within a city provide a means of checking the number and types of vehicles moving from one part of the city to the other across the screen lines.

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Using Dillingham Boulevard, as an example, in the years of 1998 and 1999, you can see the 24-Hour Traffic Volumes, as shown below, from Traffic Summaries. What will the loss of 50% of the multi-purpose traffic lanes on Dillingham Boulevard create as a result? Obviously major streets nearby have to make up the loss like School Street, King Street, and Nimitz Highway. We will see increase in multi-purpose traffic volume in both easterly and westerly directions as well as nearby northerly and southerly directions and additional traffic congestion. Existing cross streets within and around the Central Business District (CBD) will also be significantly affected by shorter green light times and more traffic and pedestrian congestion.

Also from the same source of information, available only on a CD-ROM disc, beginning this year for years 1998 and 1999 Traffic Summaries, Island of Oahu, are Traffic Counts for the Manoa-Palolo Drainage Canal - Ala Wai Canal Screen Line Counts - 24-Hour Traffic Volumes. What will happen with the loss of multi-purpose traffic lanes in each direction on this portion of Ala Moana Boulevard at the Ala Wai Bridge to accommodate the BRT?

Obviously multi-purpose traffic lanes within the corridor here for the BRT as well as those nearby and adjacent will experience additional traffic congestion. With the loss of multi-purpose traffic lanes traffic volumes on nearby and adjacent major streets will increase to adjust to the current number of cars that use Ala Moana Boulevard. Constant monitoring of exclusive BRT lanes for compliance of non-use by multi-purpose traffic will be a continuing problem as well as respect by pedestrians to traffic signals when crossing multi-purpose traffic lanes to get to bus stops.

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Comparison of Kalihi Stream Screen line Counts -- 24-Hour Traffic Volumes, *Selected

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SL-10	* Nimitz Highway	79,733	41,245	38,488	84,160	43,950	40,210
SL-11	* Dillingham Blvd.	39,828	22,785	17,043	38,943	20,734	18,209
SL-12	* King Street	26,127	15,427	10,700	24,321	14,186	10,135

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SL-13	* School Street	17,081	8,920	8,161	16,461	7,756	8,705

Note: Dillingham Boulevard, next to Nimitz Highway, has the second largest 24-Hour Traffic Volume in 1998 and 1999 of all Facilities selected for the Kalihi Stream Screen line Counts. Dillingham Boulevard is portion of the corridor selected for the In-Town BRT.

1998 and 1999 24-HOUR TRAFFIC COUNT - STATION SUMMARY
Source: Traffic Summary, Island of Oahu
State of Hawaii, Department of Transportation, Highways Division

Comparison of Kapalama Drainage Canal Screen line Counts -- 24-Hour Traffic Volumes, *Selected

Station Number	Facility	1998 Total	1998 East	1998 West	1999 Total	1999 East	1999 West
SL-20	*Nimitz Highway	71,277	35,945	35,332	75,545	37,290	38,255
SL-21	*Dillingham Blvd	29,039	15,705	13,334	26,084	14,397	11,687
SL-22	*King Street	26,902	14,766	12,136	24,717	12,581	12,136
SL-24	*School Street	18,854	11,056	7,798	19,470	11,778	7,692

Note: *Dillingham Boulevard, next to Nimitz Highway, has the second largest 24-Hour Traffic Volume in 1998 and 1999 of all Facilities selected for Kapalama Drainage Canal Screen line Counts. Dillingham Boulevard is portion of corridor designated for the In-Town BRT.

1998 and 1999 24-HOUR TRAFFIC COUNT - STATION SUMMARY
Comparison of Manoa-Palolo Drainage Canal - Ala Wai Canal Screen line Counts -- 24-Hour Traffic Volumes, *Selected

Station Number	Facility	1998 Total	1998 East	1998 West	1999 Total	1999 East	1999 West
SL-50	*Ala Moana Blvd	45,254	21,975	23,279	45,392	21,345	24,047
SL-51	*Kalakaua Ave.	50,784	23,963	26,821	40,356	22,728	17,628
SL-54	*Kapiolani Blvd	19,866	6,740	13,126	17,744	6,563	11,181
SL-55	*King Street	28,784	28,784	--	29,416	29,416	--

Note: *Ala Moana Blvd, at Ala Wai Canal Bridge has largest 24-Hour Traffic Volume in 1999 of all Facilities selected for Manoa-Palolo Drainage Canal-Ala Wai Screen Line Counts. Ala Moana Boulevard is portion of the corridor selected for the In-Town BRT.

Prepared by: Wendell Lum

Note: 1998 and 1999 24-HOUR TRAFFIC COUNT compiled from CD-ROM disc available from Hawaii State Library and State of Hawaii, PLANNING BRANCH, Department of Transportation, Highway Division

Mahalo,

Wendell Lum
(member, Kaneohe Neighborhood Board, No. 30)
(member, Citizen Advisory Committee of the Oahu Metropolitan Planning Organization

cc: Office of Environmental Quality Control, State of Hawaii
Honorable Benjamin Cayetano, Governor, State of Hawaii
Ms. Cheryl Soon, Director, Department of Transportation Services

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DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
Mayor

CHERYL D. SOON
Director

GEORGE "KEOKI" MIYAMOTO
Deputy Director

TP9/01-04066R

March 8, 2002

Mr. Wendell Lum
45-135 Lilipuna Road
Kaneohe, Hawaii 96744-3022

Dear Mr. Lum:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 7, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your comments and our responses are shown on the attached table.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

Attachment

Comments	Response
After Rounds 1 and 2 of the Oahu Trans 2K meeting, public and agency input was combined with technical analysis to define an initial set of alternatives. Only No-Build, Enhanced Bus/Transportation System Management (TSM), Bus Rapid Transit (BRT), and Light Rail Transit (LRT) were considered. A cost-effective shorter grade-separated light rail alternative most over existing street rights-of-way was not included to be an alternative for the In-Town portion. As the chosen Locally Preferred Alternative (LPA) the last time and within the last ten years it should have been again naturally included, for comparison, once and for all to see and comment on.	A fully grade-separated transit system was considered and rejected since it was determined that the public was not in favor of an elevated transit system because of its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.
The process should ensure that critical community concerns and technical issues are identified early in the study and addressed in the engineering, environmental, economic, and financial analyses…	The Primary Corridor Transportation Project is following the requirements of the National Environmental Policy Act (NEPA) and Chapter 343 of the Hawaii Revised Statutes (HRS), as amended. The purpose of the NEPA and HRS processes is to ensure that accurate environmental studies are performed, that they are done with public involvement, and that public officials make decisions based on an understanding of environmental consequences. For the past two years the City and County of Honolulu (City) has conducted the 21st Century Oahu visioning process including its transportation component, Oahu Trans 2K. It has been the most extensive community-based transportation planning effort in the City's history and it is the principal public outreach medium for the Primary Corridor Transportation Project. During the DEIS process, in addition to the required scoping meetings, meetings with over 100 governmental agencies, elected officials, businesses, and business, community, and civic organizations to present the elements of the Final Mobility Plan and gather information and comments.

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Comments	Response
	Over 70 presentations were made at community-sponsored meetings that were held prior to issuance of the MIS/DEIS. The formal public hearing was held on October 12, 2000. The City Council Transportation Committee has been continuously briefed on the project status since inception. In anticipation of the LPA decision, the City Council Transportation Committee conducted a series of public hearings out in the districts throughout the primary transportation corridor after the MIS/DEIS was distributed. After the LPA was selected, the City Council asked the DTS to continue public dialogue on the project. Community working groups were formed to provide a forum for open dialogue between project sponsors and neighborhood, civic, business and other organizations so that environmental and transportation issues and refinements to project proposals could be discussed. Five working groups were formed and several meetings held with each group regarding the project. As a result of the working groups, this SDEIS has resulted to address the project refinements resulting from the working groups' efforts. In addition to the working groups, the project team members have been meeting with numerous individuals, agencies, and organizations. Over 100 meetings have been conducted since January 2001.
Was it a done deal to guide the process from the beginning by the City's Department of Transportation and its hired consultants to put the Bus Rapid Transit (BRT) as a preferred final choice somehow by eliminating a superior grade-separated light rail alternative?	It is a federal requirement that all alternatives be treated in a balanced manner and the DEIS has been reviewed to ensure that this "balanced treatment" requirement is met. Even at this point in the process, there is no foregone conclusion that the BRT Alternative would be implemented. Until there is a completed Record of Decision (ROD), the preferred alternative is not for certain. After the ROD is issued, construction funding will be procured to implement the

Comments	Response
	project. A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system because of its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.
According to the U.S. Department of Transportation website: http://www.fta.dot.gov/research/pdf/iibrt.pdf there are problems of arterial bus priority treatments (Bus Rapid Transit).	Although there are obstacles to successful implementation of a BRT system, it can provide a flexible and cost-effective method of public transportation. When properly developed in conjunction with land use policies and development plans, the BRT system can provide fast, reliable, and convenient transit service to cities and suburbs. It can also lead to compact, pedestrian-oriented, and environmentally sensitive development that preserves neighborhoods and open space.
Providing high quality service within the downtown sections of metropolitan areas like Honolulu which is the key to the Bus Rapid Transit concept has not been the subject of a comparable effort in the rest of the U.S.	The BRT is based on the most ubiquitous technology around the world - the bus. It has been continually improved and updated with BRT being the most recent application of this proven technology. The key BRT features being proposed in Honolulu have been tested and proven in cities throughout the world including Curitiba and Sao Paolo, Brazil; Brisbane and Adelaide, Australia; Auckland, New Zealand: Vancouver and Ottawa, Canada; Dublin Ireland; Nagoya, Japan; New York City, Los Angeles, Pittsburgh, and Orlando in the U.S.
The most basic obstacle to creating bus lanes in Honolulu is the lack of adequate cross section to separate buses from general purpose traffic.	The BRT Alternative is comprised of a mix of exclusive BRT, semi-exclusive BRT and mixed-use lanes. The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly affected, exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes, exclusive transit lanes were retained such as on Dillingham and through Downtown.

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Comments	Responses
The need to allow general purpose traffic to use a bus lane for turning interferes with bus operations, increasing travel times and adding to problems of enforcing the restriction of the lane to buses under all other circumstances.	The BRT system strives to strike a balance between transit speed and impacts to general traffic. In segments where it was judged that roadway capacity was needed for general traffic and the BRT operation would not be significantly impacted exclusive lanes were replaced by either semi-exclusive or mixed-flow operation. In areas of high BRT ridership volumes, exclusive transit lanes were retained such as on Kapiolani and through Downtown. The BRT lanes will be clearly delineated and signed. Since large, specially marked BRT vehicles will be utilizing these lanes it will be obvious which vehicles are violators and therefore it will not take much law enforcement manpower to monitor and enforce the lane designation. There will be an enforcement mechanism developed to discourage private vehicles from entering BRT-exclusive lanes. These enforcement mechanisms may be in the form of a fine for entering a BRT-exclusive lane, similar to the fines imposed on the existing HOV lanes.
Curbside parking by emergency, delivery, and service vehicles also obstructs bus movements and is particularly disruptive if the bus lane is restricted to a single lane width.	The two technologies under consideration, the Embedded Plate System and the Hybrid Propulsion System both provide the flexibility to operate outside of the designated BRT lanes. Therefore, the BRT vehicles would bypass the vehicle that is parked along the curve by maneuvering around the vehicle.
A drawback of median bus lanes is that passengers must walk across general purpose traffic lanes to reach the bus stop.	The conceptual design of transit stops located in the median includes features such as railings to discourage transit patrons from exiting the platform except at designated locations. Traffic signals and crosswalks will be provided at BRT stations to allow pedestrians to safely cross the street.
The constraints imposed by traffic signal progression will limit effective application of signal preemption along the In-Town	Traffic signals will utilize prioritization for BRT vehicles not pre-emption. At certain intersections, BRT vehicles approaching a green

Comments	Responses
portion of the corridor.	signal will activate an extension of the green indication for that cycle only. BRT vehicles stopped at a red signal will move concurrently with the through traffic in the same direction, unless the BRT vehicle must turn or change lanes, in which case it will be given a green signal in advance of the general purpose traffic lanes. All traffic signal extensions and advance indications will be timed in the field during actual operation to minimize effects on general traffic flow.
Because of the use of narrow platforms because of very narrow street rights-of-way the so-called transit stations will not eliminate the need to restrict boarding to the front door of the bus which takes additional time.	The transit stops will be designed to efficiently handle the expected volume of passengers.
System integration becomes an issue when the need to provide transfers between routes and other forms of public transportation where passengers pay fares at these transfer points with on board payment.	The BRT system will be seamlessly integrated into the hub-and-spoke bus network by implementing well-planned stops, efficient dwell times and a stream-lined fare collection and transfer system to provide convenient and cost-effective service for potential users.
The DEIS does not give details on the impact with the loss of one and in most cases two lanes of multi-purpose traffic lanes within the proposed corridor.	See Chapter 4 of the MIS/DEIS for the discussion of traffic related impacts.
Giving priority to the proposed BRT will cause additional delays at cross streets and pedestrian cross-walks creating additional traffic congestion at these locations.	Traffic signals will not be pre-empted by the BRT. At certain intersections, BRT vehicles approaching a green signal will activate an extension of the green indication for that cycle only. BRT vehicles stopped at a red signal will move concurrently with the through traffic in the same direction, unless the BRT vehicle must turn or change lanes, in which case it will be given a green signal in advance of the general purpose traffic lanes. All traffic signal extensions and advance indications will be timed in the field during actual operation to minimize effects on general traffic flow.
A grade-separated light rail system would do the most to improve the capacity of the transportation system to carry people through Honolulu as the population thrives through 2025.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is

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Comments	Responses
	discussed in Chapter 2.6.1 of the MIS/DEIS.
Because of its exclusive guideway would increase the mode share of transit more than any other alternative travel time savings for transit patrons, providing most reliable service that would be buffered from traffic delays, improving in-town mobility and strengthening the connections throughout the island of Oahu.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.
The nature of the exclusive right-of-way for the grade-separated light rail would provide significantly faster travel times within Honolulu.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.
The constant at-grade situations of pedestrians, automobile traffic, traffic lights, emergency vehicles, construction and repairs of underground utilities below the exclusive lanes of the BRT, traffic accidents, long stops because of passenger loading limitations, exceptional narrow bus stops, and more time between vehicles don't help the situation.	The BRT system is an at-grade system and as such does interface with other features at that level. However, the two candidate technologies, the Embedded Plate System and the Hybrid Propulsion System, both provide the flexibility to operate outside of the designated BRT lanes and therefore can easily maneuver around construction areas, emergency vehicles, and traffic.
Additionally monitoring of both exclusive and shared lanes with the BRT will be a problem and more adjustments to satisfy problems with the communities nearby, currently going on, will cause additional mediation with a Bus Rapid Transit System to further deteriorate the word "rapid."	The BRT lanes will be clearly delineated and signed. Since large, specially marked BRT vehicles will be utilizing these lanes it will be obvious which vehicles are violators and therefore it will not take much law enforcement manpower to monitor and enforce the lane designation. There will be some enforcement mechanism developed to discourage private vehicles from entering BRT-exclusive lanes. These enforcement mechanisms may be in the form of a fine for entering a BRT-exclusive lane, similar to the fines imposed on the existing HOV lanes.
Lack of sufficient cross-section of streets of the corridor creates very narrow bus stops which also prevent faster on-board loading of passengers with a single front entry for verification of fares paid providing further	The transit stops will be designed to efficiently handle the expected volume of passengers.

Comments	Responses
deterioration of transit travel times.	
Maintenance and construction projects under our streets within the proposed BRT corridor has potential of nearly shutting down the system sometime in the future if implemented.	The provisions to accommodate maintenance and construction projects within the BRT corridor will be similar to how construction projects within a lane are handled currently – the traffic will be detoured around the construction/maintenance area. The two technologies under consideration the Embedded Plate System, and the Hybrid Propulsion System both provide the flexibility to operate outside of the designated BRT lanes.
Under the Bus Rapid Transit (BRT) alternative because there has been lack of the subject of comparable effort in North America this newer transit alternative application for success is not really known except in Curitiba, Brazil which is very different being under the control of a dictatorship.	The BRT is based on the most ubiquitous technology around the world, -the bus. It has been continually improved and updated with BRT being the most recent application of this proven technology. The key BRT features being proposed in Honolulu have been tested and proven in cities throughout the world including Curitiba and Sao Paolo, Brazil; Brisbane and Adelaide, Australia; Auckland, New Zealand: Vancouver and Ottawa, Canada; Dublin Ireland; Nagoya, Japan; New York City, Los Angeles, Pittsburgh, and Orlando in the U.S.
Narrow bus stops and limited availability of park and ride facilities are not better able to handle surges in ridership due to possible changes in land use policies in central Oahu, special events and sporting events easily.	The design of the BRT system and transit stops will be able to accommodate peaks in ridership due to special events. For example, to accommodate transit patrons attending a UH football game at Aloha Stadium, the City would coordinate with the Stadium Authority prior to the event to identify alternative parking sites where fans could park and utilize the BRT to attend the game. The current land use plans for Central Oahu and resulting increase in transit ridership was taken into account in the planning of the BRT project.
More transfers would be needed for both the In-town BRT and a grade-separated light rail system due to the proposed hub-and spoke-bus network	The BRT system will be seamlessly integrated into the hub-and-spoke bus network by implementing well-planned stops, efficient dwell times and a stream-lined fare collection and transfer system to provide convenient and cost-effective service for potential users.
Today's grade-separated light rail vehicles have noise emissions comparable to those of an electric trolley bus.	There are still many noise factors to be considered associated when designing a rail system. Steel wheels on steel rails require

AR00016326

Comments	Responses
	mitigation for brake squeals, vehicle vibration, and electronic propulsion tones. The noise severity will be dependent on the speed of the vehicles, the weight of the vehicles, the type of suspension used in the vehicles, and the track foundation. The costs associated with mitigation can be substantial. The two candidate technologies, the Embedded Plate and Hybrid Propulsion Systems are quieter than the diesel buses currently used.
Today's grade-separated light rail vehicles use far less power than other rapid transit systems and releases no harmful chemicals into our atmosphere.	Technologies proposed for the BRT Alternative include the embedded plate technology which consists of electric vehicles powered by a wayside traction power delivery system or hybrid propulsion system where energy for the traction power is carried on-board the vehicle. The Embedded Plate technology vehicles would emit zero pollutants. The hybrid electric vehicles would be low-emission vehicles because their diesel engines would always be operating at efficient levels. Since the BRT Alternative would utilize either zero or low-emission vehicles, it would substantially reduce the level of particulate emissions (black smoke and soot) at certain intersections and street level locations in comparison to the No-Build and TSM Alternatives, which would continue to use diesel buses.
Fully automated and driverless grade-separated light rail vehicles can run more frequently than any BRT vehicle peak and non-peak hours.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.
Because of lack of a comparable effort for a Bus Rapid Transit System on the mainland and even in Europe I see a missing alternative that should have been considered fairly for all taxpayers.	The key BRT features being proposed in Honolulu have been tested and proven in cities throughout the world including Curitiba and Sao Paolo, Brazil; Brisbane and Adelaide, Australia; Auckland, New Zealand: Vancouver and Ottawa, Canada; Dublin Ireland; Nagoya, Japan;

Comments	Responses
	New York City, Los Angeles, Pittsburgh, and Orlando in the U.S. If you are referring to the "missing alternative" being the consideration of the a grade-separated light rail system, fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.
A grade-separated light rail can be fast, convenient, reliable, and the right choice among all other alternatives.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.
Building a grade-separated line for the In-Town portion will create many jobs and is a good investment in our city's future.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS. The BRT Alternative will generate jobs related to the operations of the BRT system such as transit drivers and operations and maintenance personnel. Along with transit needs, one of the other goals of the PCTP is to help shape growth in the corridor. The large, underdeveloped parcels along the alignment present opportunities for transit oriented development at these sites, which will result in the creation of jobs.
Because it runs on its own tracks, separated from roads this transit system eliminates conflicts that are frequent on the road system.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.

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Comments	Responses
A grade-separated light rail system costs less in the long term and offers greater benefits.	A fully grade-separated transit system was considered and rejected since it was determined at the outset that the public was not in favor of an elevated transit system due to its high cost and its physical and visual impacts. This is discussed in Chapter 2.6.1 of the MIS/DEIS.

AR00016328

700 Richards Street, #2103
Honolulu, HI 96813-4621
13 September 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapi`olani Blvd., Suite 1200
Honolulu, HI 96813

RE: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Dear Ms. Soon:

After an analysis of the proposed traffic patterns on Richards Street as presented in the August 2000 DEIS and the subsequent addition of an In-Town BRT branch to serve Aloha Tower Marketplace and Kaka`ako Makai, I wish to express my concerns about the impact of these BRT routes on the residents of Harbor Square, 700 Richards Street.

As proposed, traffic on Richards Street will be greatly increased by the addition of 2 BRT routes mauka and makai as well as the inclusion of a major intersection at Richards, Halekauwila and Ala Moana Boulevard. In addition to the 2 BRT routes, a new mauka lane will be created which will introduce additional traffic on Richards street flowing from Halekauwila and Ala Moana Boulevard.

As a result of these new traffic patterns, between S. King street and Ala Moana Boulevard, Richards street will have 4 lanes of traffic with 2 BRT lanes in the middle between a traffic lane mauka on the Diamond Head side and a traffic lane makai on the Ewa side.

Consequently, vehicles entering or exiting parking garages or the post office loading dock located on this section of Richards Street will have to cross 3 lanes of traffic to make a left turn to reach appropriate traffic lanes. Since BRT busses are projected to run at 4 minute intervals (30 busses/hour) at peak travel times, turning vehicles will have to not only compete with busses for access to the appropriate travel lanes but with vehicles already in these lanes.

Harbor Square consists of 360 residential apartments, 10 commercial apartments, a 14-story commercial parking garage with 507 parking stalls and a 6-story residential parking garage with 201 parking stalls. Anyone using these parking garages can attest to the current difficulty of getting in or out at peak travel times.

The creation of a traffic lane along the Ewa curb will eliminate a section of curb adjacent to Harbor Tower currently available for pickup and/or discharge of passengers. This area represents the only handicap accessible entry for residents or visitors to the front entrance. The loss of use of this facility will have a detrimental effect on the social conditions of residents and visitors.

As proposed, the use of Richards Street for 2 BRT routes as well as two traffic lanes will curtail the beneficial uses of the environment for residents and businesses located along the route as follows:

1. Increased noise, vibration and diminution of air quality from vehicular pollutants resulting from a significant increase in traffic. This will be a major problem for the parking garages from the back-up of vehicles waiting to enter or exit during peak travel times.

2. Significant social effects from the loss of quality of living brought about by stresses engendered from increases in the density of detrimental environmental factors, such as those mentioned above. Additionally, the construction of a major intersection as well as 2 BRT and traffic lanes with its attendant disruption of the peace and tranquility of residents will be inevitable.

3. Significant economic impact due to the reduction in value of properties resulting from the decrease in the desirability of Harbor Square as a place to live or do business. Additionally, the city will have a loss of property tax revenues as a result.

4. These factors will cumulatively have an effect upon the health and welfare of residents and business employees as a result of the introduction of significant traffic congestion in their living and working environments. Nor will they benefit from the BRT since there will be no access to busses along Richards street.

Consequently, the use of Richards Street for 2 BRT routes as well as the introduction of traffic lanes which do not presently exist will have a major environmental impact upon the residents and businesses located in the area.

Sincerely yours,

Charles M. Ferrell

cc: Office of Environmental Quality Control

AR00016329

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04106R

March 8, 2002

Mr. Charles Ferrell
700 Richards Street, #2103
Honolulu, Hawaii 96813-4621

Dear Mr. Ferrell:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 13, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
As proposed, traffic on Richards Street will be greatly increased by the addition of 2 BRT routes mauka and makai as well as the inclusion of a major intersection at Richards, Halekauwila, and Ala Moana Boulevard. In addition to the 2 BRT routes, a new mauka lane will be created which will introduce additional traffic on Richards street flowing from Halekauwila and Ala Moana Boulevard.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between South King Street and Nimitz Highway.
Since BRT buses are projected to run at 4 minute intervals (30 buses/hour) at peak travel times, turning vehicles will have to not only compete with buses for access to the appropriate travel lanes but with vehicles already in these lanes.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between South King Street and Nimitz Highway

The creation of a traffic lane along the Ewa curb will eliminate a section of curb adjacent to Harbor Tower currently available for pickup and/or discharge of passengers. This area represents the only handicap accessible entry for residents or visitors to the front entrance. The loss of use of this facility will have a detrimental effect on the social conditions of residents and visitors.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between South King Street and Nimitz Highway.
The use of Richard Street for 2 BRT routes as well as two traffic lanes will curtail the beneficial uses of the environment for residents and businesses located along the route as follows: 1. Increased noise, vibration and diminution of air quality from vehicular pollutants resulting form a significant increase in traffic. This will be a major problem for the parking garages from the back-up of vehicles waiting to enter or exit during peak travel times.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between South King Street and Nimitz Highway.
2. Significant social effects from the loss of quality of living brought about by stresses engendered from increases in the density of detrimental environmental factors, such as those mentioned above. Additionally, the construction of a major intersection as well as 2 BRT and traffic lanes with its attendant disruption of the peace and tranquility of residents will be inevitable.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between South King Street and Nimitz Highway.
3. Significant economic impact due to the reduction in value of properties resulting from the decrease in desirability of Harbor Square as a place to live or do business. Additionally, the city will have a loss of property tax revenues as a result.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between South King Street and Nimitz Highway.

4. These factors will cumulatively have an effect upon the health and welfare of residents and business employees as a result of the introduction of significant traffic congestion in their living and working environments. Nor will they benefit from the BRT since there will be no access to busses along Richards Street.	The BRT alignment has been revised to travel on Alakea Street and will not travel on Richards Street between South King Street and Nimitz Highway.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

1434 Punahou St., Apt. #837
Honolulu, HI 96822
September 18, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

In response to your letter on this subject dated August 16, 2001, the following is submitted:

Section 1: Introduction. No comments.

Section 2: Proposed Modifications to the locally preferred alternative.

2.1 Kakaako Makai Alignment.

The routing described in Par. 2.1 is circuitous at best, and the turn from Richards to Halekauwila exists but the entrance to Bishop Street does not exist. At best, all these streets are narrow and hardly suitable for buses even without any street parking. I believe that a better solution to the movement of bus traffic in this area should be found.

2.2 Modification of the U.H. In-town Branch.

Both King Street and Pensacola Street are one-way roads, and now are selected for two-way bus routes. This appears unsatisfactory.

2.3 BRT Exclusive Ramp on the H-1 Freeway near Aloha Stadium.

I am not familiar with the proposed ramp, but it would be most useful if it could be built with two lanes each on a divided road; thus, it could be used for inbound and outbound traffic at the same time.

Section 3: Proposed Impact Studies. No comments.

These remarks are made in my sincerest interest in improving the traffic problems.

Sincerely,

Frederick C. Gross

Frederick C. Gross

xc: Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04162R

March 8, 2002

Mr. Frederick C. Gross
1434 Punahou Street, Apt. #837
Honolulu, Hawaii 96822

Dear Mr. Gross:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 18, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
The routing described in Par. 2.1 is circuitous at best, and the turn from Richards to Halekauwila exists but the entrance to Bishop Street does not exist. At best, all these streets are narrow and hardly suitable for buses even without any street parking. I believe that a better solution to the movement of bus traffic in this area should be found.	The Kakaako Makai alignment was determined using current and projected land uses and employment information to ensure that the BRT will serve transit patrons' origins and destinations. Buses currently operate on these city streets.
Both King Street and Pensacola Street are one-way roads, and now are selected for two-way bus routes. This appears unsatisfactory.	Thank you for your comment. The two directional BRT operating on one-way streets has proven very effective because the BRT design incorporates features to ensure that automobile, truck, etc. drivers are aware of the BRT.
BRT Exclusive Ramp on the H-1 Freeway near Aloha Stadium: I am not familiar with the proposed ramp, but it would be most useful if it could be built with two lanes each on a divided road; thus, it could be used for inbound and outbound traffic at the same time.	The Luapele Drive ramp will be a one-way, reversible ramp. This will allow buses to use the ramp in the peak direction – Koko Head in the morning and Ewa in the afternoon.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

Ms. P.PASHA BAKER
Post Office Box 3919
Honolulu,Hawaii 96812-3919
Phone/Fax: 808-533-7171

21 September 2001

To: Ms. Cheryl D. Soon, Director
Department of Transportation Services
City & County of Honolulu
711 Kapiolani Blvd.,#1200
Honolulu, Hawaii 96813
Fax# 808-523-4730

RE: Primary Corridor Transportation Project
Supplemental Draft Enviornmental Impact Statement

Dear Ms. Soon,

It is my understanding that the subject EIS is now in preparation for final submittal for approval, & that comments so concerning are to be filed with you office by 9-21-01. It is in that regard that the following comments, made by me are forwarded herewith.

I am a civic & community minded individual, involved in numerous organizations both in Hawaii & the mainland which include:
The Navy League of the United States, Employer Support of the Guard & Reserve, Salvation Army Auxiliary, Paul Harris Fellow, Honolulu Rotary Club, Armed Service Comm. Chamber of Commerce of Hawaii(to name only a few).
Along with my volunteer involvement, I am a Honolulu business woman dealing in fiancial services.

It's been almost 13 years since I moved into Harbor Square(#2209 Harbor Tower - no mail is rec'd there - only at adress as above).
When we first moved there we were able to entertain a great deal as there was ample street parking - if not on Richards, then on Hakaweila, & lots of parking across Nimitz at the public parking lot or on the streets around HECO power plant.
Then Aloha Market place was allowed to buy not onlythe public parking lot - but also the street parking all around the power plant. Then after the Oklahoma bombing of the federal building - all the parking on the streets around our neighboring Federal building was taken away - And - Mililani Street by the downtown post office is pretty much limited to mostly tour buses -
THUS - There is basically only a few spots let on the street for our complex, & thus an end to our entertaining at home - no place to park!!!

A Bus Rapid Transit System is, in my view, a worthy idea, PROVIDED that is does not impact the community adversely. We ALREADY have buses on THREE sides of our complex - Nimitz Hgy, Alakea Street, & Queen Street.

2/

Fortunately - these 3 streets are able to accomadate this load - HOWEVER - We have 3 sides of our building that we cannot stop alongside of, park or load & unload passengers.
IF - THE NEW SYSTEM IS ALLOWED TO TAKE OVER OUR TINY RICHARDS STREET - WE WILL BE MADE AN ISLAND !!!!!!!

WHY ARE WE BEING PUNISHED LIKE THIS !?!?!?!?!?

It is now difficult for folks waiting to be picked up or dropped off at Harbor Square as is so often the case - one has to double park to be able to do so as sooooo many of us who live there are also being dropped off or picked up.

Ithas been with Shock & Disbelief that we were suddenly notified that these meager remants on Richard Street are now planning to be eliminated! AND THAT THIS HAS BEEN IN THE PLANNING stages for THREE YEARS without any of us (some 2000 of us in the residentail & commercial towers)being advised & or consulted of the plans to punish us with a complete strangle on us & create hardships beyond measure.

We would like to know - WHY are we being PUNISHED like this!?!?!?!?!
Why has Mililani Street not been Considered for this purpose!?!?!?!
Why Has Punchbowl Street NOT been considered for this !?!?!?!?!
Why has South Street Not Been Considered for this !?!?!?!?!?!

WHO DO WE TURN TO FOR HELP & ANSWERS TO THIS MATTER?!?!?
How Can We Get some Consideration & at least a hearing with your office to address our problems!?!?!?!?!

Your time and consideration would be greatly appreciated as soon as possible.

Sincerely,

P.Pasha Baker
Resident #2209

cc: R. Bruce Graham,Fr., Esq.
President - AOAO

573-7430
available To fax
Not in service

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04232R

March 8, 2002

Ms. Pasha Baker
P. O. Box 3919
Honolulu, Hawaii 96812-3919

Dear Ms. Baker:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 21, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
We already have buses on three sides of our complex – Nimitz Highway, Alakea Street, and Queen Street. Fortunately these three streets are able to accommodate this load, however we have three sides our building that we cannot stop alongside of, park, or load and unload passengers. If the new system is allowed to take over our tiny Richards Street we will be made an island.	The BRT alignment has been revised to travel on Alakea Street instead of Richards Street between S. King Street and Nimitz Highway.
It has been with shock and disbelief that we were suddenly notified that these meager remnants on Richard Street are now planning to be eliminated and that this has been in the planning stages for three years without any of us (some 2000 of us in the residential and commercial towers) being advised and/or consulted of the plans to punish us with a complete strangle on us and create hardships beyond measure.	For the past two years the City and County of Honolulu (City) has conducted the 21st Century Oahu visioning process including its transportation component, Oahu Trans 2K. It has been the most extensive community-based transportation planning effort in the City's history and it is the principal public outreach medium for the Primary Corridor Transportation Project. More than 44 public workshops were held to allow the public an opportunity to work on solutions to the mobility problems facing Oahu. There also was newspaper coverage and neighborhood presentations, all with open debate.

Comment	Response
	An outcome of the process was the Primary Corridor Transportation Project, Major Investment Study/Draft Environmental Impact Statement [DEIS] (August 2000) which was distributed the to agencies and the public in August 2000 for a 45 day review period. During the DEIS process, in addition to the required scoping meetings, meetings were held with over 100 governmental agencies, elected officials, businesses, and business, community, and civic organizations to present the elements of the Final Mobility Plan and gather information and comments. Over 70 presentations were made at community-sponsored meetings that were held prior to issuance of the MIS/DEIS. The formal public hearing was held on October 12, 2000. The Honolulu City Council selected the BRT Alternative as the Locally Preferred Alternative. Based on comments received on the DEIS, the Department of Transportation Services proposed to amend this alternative to include new and modified components which were approved by the City Council on August 1, 2001.
Why has Mililani Street not been considered for this purpose? Why has Punchbowl Street not been considered for this? Why has South Street not been considered for this?	The BRT alignment traverses Bishop Street makai-bound. Punchbowl Street and Mililani Street were previously considered and eliminated. South Street was not considered because it is too far from downtown.
Who do we turn to for help and answers to this matter?	Council Chair Yoshimura sponsored special meetings that resulted in the change requested by residents of Harbor

Comment	Response
	Square on September 17, 2001 and October 16, 2001.
How can we get some consideration and at least a hearing with your office to address our problems?	At a meeting arranged by Council Chair Yoshimura, the City's Department of Transportation Services (DTS) met with the residents of Harbor Square on September 17, 2001 to gather input on the proposed alignment and to provide a project status. Council Chair Yoshimura met again with the Harbor Square residents on October 16, 2001 to advise the Harbor Square residents of the proposed changes in the alignment through Downtown.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

D. Meller
2749 Rooke Avenue
Honolulu, HI 96817

September 21, 2001

Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 702
Honolulu, HI 96813

Dear Ms. Soon:

Subject: Supplemental DEIS for the Primary Corridor Transportation Project

I would like to be a formally consulted party and be provided with a paper copy of the Supplemental DEIS, the Final EIS, and future BRT-related environmental documents. I do not have access at home or at work to a computer with the right software to read the CD prepared for the previous DEIS.

I would appreciate a response to the following questions and concerns.

1. Adding a new BRT route means revising the BRT Alternative to attract more riders. How many daily transit trips would the No Build and the TSM Alternatives generate assuming the same total number of buses as the revised BRT Alternative in 2025? It seems obvious that fewer buses will result in fewer routes, reduced frequency of bus service, longer waits at bus stops, longer boarding times at bus stops, increased crowding of buses, fewer express buses, and fewer bus riders. Assuming the No Build and the TSM Alternative have fewer buses than the BRT Alternative will prevent a fair comparison.

2. When does the City plan to convert existing traffic lanes east of Middle Street to exclusive use of the BRT route which will serve the UH? At that time,

- which intersections will experience significantly reduced levels of service?
- how many bus riders will be better off and how much reduction in travel time will they experience?
- how many drivers will be worse off and how much more travel delay will they experience?

3. When does the City plan to convert existing traffic lanes east of Middle Street to exclusive use of the BRT route which will serve Waikiki? At that time,

- which intersections will experience significantly reduced levels of service?
- how many bus riders will be better off and how much reduction in travel time will they experience?
- how many drivers will be worse off and how much more travel delay will they experience?

4. Am I correct in assuming that the proposed BRT route with stops at Aloha Tower and Kewalo Basin is contingent on the HCDA extending Ilalo Street to Punchbowl Street, and that extension of Ilalo Street may not occur within the next decade?

5. When will the proposed BRT freeway-access ramp at Luapele Street, associated freeway widening, and the associated park-and-ride lot be constructed and what will each of these improvements cost?

6. Each day, how many buses and bus rider will use the proposed BRT freeway access ramp at Luapele Street:

- when it is first constructed?
- in 2025?

7. When the zipper lane is normally not deployed, and during peak traffic when the zipper lane cannot be deployed because of an incident or mechanical problems, the BRT will not be able to use the proposed Luapele ramp. What route will the BRT take when the proposed Luapele ramp cannot be used?

8. If the proposed Luapele ramp were not built, what is the projected drop in daily bus ridership?

9. If the proposed park-and-ride lot were not built near the proposed Luapele ramp, what is the projected drop in daily bus ridership?

10. In general, how large an expenditure does the City consider justified to attract a single additional daily bus rider? Will proposed expenditures to construct a BRT freeway-access ramp at Luapele Street, associated freeway widening, and the associated park-and-ride lot meet this standard?

It is my hope that your answers to these questions will improve future decisions about Oahu transit improvements.

Sincerely,

D. Meller

c: OEQC
FHWA
FTA
Councilmember Duke Bainum
Senator Cal Kawamoto

AR00016337

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TP9/01-04231R

March 8, 2002

Mr. Doug Meller
2748 Rooke Avenue
Honolulu, Hawaii 96817

Dear Mr. Meller:

Subject: Primary Corridor Transportation Project
Supplemental Draft Environmental Impact Statement

Thank you for your September 21, 2001 letter responding to the Supplemental Draft Environmental Impact Statement (SDEIS) Preparation Notice. Your letter provided us with the following comments for which we have prepared responses.

Comment	Response
I would like to be a formally consulted party and be provided with a paper copy of the Supplemental DEIS, the Final EIS, and future BRT-related environmental documents.	You are included as a SDEIS recipient.
Adding a new BRT route means revising the BRT Alternative to attract more riders. How many daily transit trips would the No Build and the TSM Alternatives generate assuming the same total number of buses as the revised BRT Alternative in 2025? It seems obvious that fewer buses will result in fewer routes, reduced frequency of bus service, longer waits at bus stops, longer boarding times at bus stops, increased crowding of buses, fewer express buses, and fewer bus riders. Assuming the No Build and the TSM Alternative have fewer buses than the BRT Alternative will prevent a fair comparison.	The No-Build, TSM, and Refined BRT Alternatives reflect three possible levels of transit investment. Having three levels of service provided consistent with the level of investment does indeed allow for a fair comparison.

When does the City plan to convert existing traffic lanes east of Middle Street to exclusive use of the BRT route which will serve the UH? At that time, • which intersections will experience significantly reduced levels of service? • how many bus riders will be better off and how much reduction in travel time will they experience? • how many drivers will be worse off and how much more travel delay will they experience?	Converting existing traffic lanes from general-purpose traffic use to exclusive BRT use is projected to occur by 2006 for the UH BRT Branch. Analyzed intersections projected to operate with greater delay in the BRT Alternative than in the No Build Alternative are: South King Street/ Pensacola Street, Kapiolani Boulevard/ Pensacola Street, Kapiolani Boulevard/Piikoi Street, and University Avenue/South King Street. Overall, 2025 peak period vehicle hours of delay are projected to decrease from 251,970 for the No Build Alternative to 243,261 for the BRT Alternative. Although peak period vehicle hours of delay was not calculated for 2006, systemwide vehicle hours of delay is also expected to decrease. Transit passenger benefits would accrue mainly from increased service reliability.
When does the City plan to convert existing traffic lanes east of Middle Street to exclusive use of the BRT route which will serve Waikiki? At that time, • which intersections will experience significantly reduced levels of service? • how many bus riders will be better off and how much reduction in travel time will they experience? • how many drivers will be worse off and how much more travel delay will they experience?	Converting existing traffic lanes form general-purpose traffic use to exclusive BRT use is projected to occur by 2005 for the Kakaako Mauka BRT Branch. Analyzed intersections projected to operate with greater delay in the BRT Alternative than in the No Build Alternative are: Ala Moana Boulevard/Piikoi Street, Ala Moana Boulevard/ Atkinson Drive, and Ala Moana Boulevard/Kalia Road. Overall, 2025 peak period vehicle hours of delay are projected to decrease from 251,970 for the No Build Alternative to 243,261 for the BRT Alternative. Although peak period vehicle hours of delay was not calculated for 2006, systemwide vehicle hours of delay is also expected to decrease. Transit passenger benefits would accrue mainly from increased service reliability.
Am I correct in assuming that the proposed BRT route with stops at Aloha Tower and Kewalo Basin is contingent on the HCDA extending Halo Street to Punchbowl Street, and that extension of Halo Street may not occur within the next decade?	The BRT Kakaako Mauka Branch is proposed to use Channel Street to get to Halo Street, not Punchbowl Street.

When will the proposed BRT freeway-access ramp at Luapele Street, associated freeway widening, and the associated park-and-ride lot be constructed and what will each of these improvements costs?	The Luapele BRT Ramp will be open in 2010 and cost $32.8 M in 1998 dollars. The Aloha Stadium Park-and-Ride will open in 2007 and cost $1.7 M in 1998 dollars.
Each day, how many buses and bus rider will use the proposed BRT freeway access ramp at Luapele Street: • when it is first constructed? • in 2025?	The Luapele Ramp is forecasted to carry 23 transit vehicles per hour in 2004 and 35 transit vehicles per hour in 2025 during a peak hour. The projected number of transit riders for the same two planning years is 2,300 transit riders per hour and 3,500 transit riders per hour, respectively.
When the zipper lane is normally not deployed, and during peak traffic when the zipper lane cannot be deployed because of an incident or mechanical problems, the BRT will not be able to use the proposed Luapele ramp. What route will the BRT take when the proposed Luapele ramp cannot be used?	When the Zipper Lane is not deployed, the BRT would use one of two routes: 1) Kamehameha Highway to Aiea Interchange with eastbound Moanalua Freeway, eastbound Moanalua Freeway to eastbound H-1 Freeway, eastbound H-1 Freeway to eastbound shoulder lane on H-1 Airport Viaduct; 2) Kamehameha Highway to Pearl Harbor Interchange, eastbound H-1 Freeway to eastbound shoulder lane on H-1 Airport Viaduct.
If the proposed Luapelel ramp were not built, what is the projected drop in daily bus ridership?	There would be a daily drop in projected year 2025 transit riders of approximately 3,000 transit riders per day.
If the proposed park-and-ride lot were not built near the proposed Luapele ramp, what is the projected drop in daily bus ridership?	A park and ride facility would normally be constructed so as to have a strong relationship with major transit lines. If a park and ride facility is not constructed near Luapele Ramp, it would still be constructed in a manner to foster this relationship. Therefore, the drop in daily transit riders would be negligible.

In general, how large an expenditure does the City consider justified to attract a single additional daily bus rider? Will proposed expenditures to construct a BRT freeway-access ramp at Luapele Street, associated freeway widening, and the associated park-and-ride lot meet this standard?	The SDEIS, Chapter 7 – Comparison of Alternatives includes a cost-effectiveness analysis, which relates the ability of an alternative to attract new riders to its costs. The FTA also uses the cost-effectiveness index (CEI) as input into its rating system, which compares projects across the country, and identifies those most worthy of federal funding. The CEI analysis indicates that the TSM Alternative would have a CEI (or incremental cost per new rider) of $9.74. The Refined BRT Alternative would have a $7.42 CEI compared to the No-Build Alternative and a $6.82 CEI compared to the TSM Alternative. The costs and ridership used in the analysis are for the whole project and not each project component separately or several project components together.

You will be receiving a copy of the SDEIS under separate cover. We appreciate your interest in this important transportation project and look forward to receiving your comments on the SDEIS.

Sincerely,

CHERYL D. SOON
Director

Appendix A
Exhibit A-3

EXHIBIT A-3. AGENCY COORDINATION UP TO MIS/DEIS

Exhibits A-3 through A-5 contains a record of all the agency correspondence regarding the following regulations:

- Cooperating agencies as required in the Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act
- Section 106 of the National Historic Preservation Act
- Section 7 of the Endangered Species Act
- Section 404 of the Clean Water Act
- Section 4(f) of the U.S. Department of Transportation Act
- Section 6(f) of the Land and Water Conservation Fund
- Use of Conservation District under Chapter 205 of the Hawaii Revised Statutes
- Farmland Protection Policy Act
- Safe Drinking Water Act

A summary of the correspondence and consultation activities is provided below. Copies of these documents are provided in this exhibit.

COOPERATING AGENCY LETTERS

May 5, 1999 letter from the Federal Highway Administration (FTA) to the Federal Highway Administration (FHWA) inviting them to be a cooperating agency

June 14, 1999 letter from the FHWA to the FTA accepting invitation to be a cooperating agency

May 5, 1999 letter from the FTA to the U.S. Army Corps of Engineers (USACE) inviting them to be a cooperating agency

June 16, 1999 letter from USACE to FTA accepting invitation to be a cooperating agency

July 27, 2000 letter from the State of Hawaii Department of Transportation (SDOT) to City and County of Honolulu, Department of Transportation Services (DTS) requesting to be a cooperating agency

SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Minutes of April 8, 1999 meeting with State Historic Preservation Division (SHPD) to discuss definition of the project's Area of Potential Effect (APE) and the methods to identify potential historic properties within the APE

May 7, 1999 letter from the DTS to the SHPD confirming the agreements made during the April 8, 1999 meeting

Minutes of May 21, 1999 meeting with the Office of Hawaiian Affairs to discuss potential archaeological and cultural issues of the project

Minutes of June 17, 1999 meeting with the SHPD to discuss the results of the project's first phase to identify potential historic properties

Minutes of September 28, 1999 meeting with the SHPD to discuss the list of potential historic properties in the APE

Minutes of November 12, 1999 meeting with the SHPD to discuss changes that were made to the project, and how these changes would affect the identification of potential historic properties

February 8, 2000 letter from the DTS to the SHPD submitting the results of the inventory survey

February 25, 2000 letter from the DTS to the SHPD requesting concurrence that the APE be reduced because of changes made to the project

March 8, 2000 letter from the State Historic Preservation Officer (SHPO) concurring with the reduction of the APE

SECTION 7 OF THE ENDANGERED SPECIES ACT

May 12, 1999 letter from the FTA to the U.S. Fish and Wildlife Service (USFWS) requesting a list of potential Federal Trust species that may be in the project area

May 24, 1999 letter from the USFWS to the DTS providing a list of Federal Trust species that may potentially be in the project area

SECTION 404 OF THE CLEAN WATER ACT

May 4, 2000 letter from DTS to FHWA requesting concurrence with project purpose and need and alternatives per the Memorandum of Understanding (MOU) that integrates the National Environmental Policy Act (NEPA) and Clean Water Act Section 404 processes for surface transportation projects in the State of Hawaii

June 26, 2000 letter from FHWA to DTS informing DTS that they intend to contact FTA directly if they have any recommendations or concerns

August 17, 2000 letter from DTS to FHWA informing FHWA that the Bus Rapid Transit (BRT)/Sand Island Scenic Parkway (SISP) Alternative is no longer being considered in the MIS/DEIS, and the Section 404/NEPA MOU no longer applies to the project

May 4, 2000 letter from DTS to the U.S. Army Corps of Engineers (ACOE) requesting concurrence with project purpose and need and alternatives per the Section 404/NEPA MOU

June 8, 2000 letter from ACOE to DTS stating concurrence with project purpose and need and alternatives per the Section 404/NEPA MOU

July 19, 2000 letter from DTS to ACOE informing ACOE that the BRT/SISP Alternative is no longer being considered in the MIS/DEIS, and the Section 404/NEPA MOU no longer applies to the project

May 4, 2000 letter from DTS to the National Marine Fisheries Service (NMFS) requesting concurrence with project purpose and need and alternatives per the Section 404/NEPA MOU

June 9, 2000 letter from NMFS to DTS stating concurrence with project purpose and need and alternatives per the Section 404/NEPA MOU

July 19, 2000 letter from DTS to NMFS informing NMFS that the BRT/SISP Alternative is no longer being considered in the MIS/DEIS, and the Section 404/NEPA MOU no longer applies to the project

May 4, 2000 letter from DTS to USFWS requesting concurrence with project purpose and need and alternatives per the Section 404/NEPA MOU June 12, 2000 letter from USFWS to DTS stating concurrence with project purpose and need and alternatives per the Section 404/NEPA MOU

July 19, 2000 letter from DTS to USFWS informing USFWS that the BRT/SISP Alternative is no longer being considered in the MIS/DEIS, and the Section 404/NEPA MOU no longer applies to the project

May 4, 2000 letter from DTS to the U.S. Environmental Projection Agency (USEPA) requesting concurrence with project purpose and need and alternatives per the Section 404/NEPA MOU

June 14, 2000 letter from USEPA to DTS stating non-concurrence with the project purpose and need and alternatives per the Section 404/NEPA MOU

August 17, 2000 letter from DTS to USEPA informing USEPA that the BRT/SISP Alternative is no longer being considered in the MIS/DEIS, and the Section 404/NEPA MOU no longer applies to the project

May 4, 2000 letter from DTS to the SDOT requesting concurrence with project purpose and need and alternatives per the Section 404/NEPA MOU

June 22, 2000 letter from SDOT to DTS stating non-concurrence with the project purpose and need and alternatives per the Section 404/NEPA MOU

August 17, 2000 letter from DTS to SDOT informing SDOT that the BRT/SISP Alternative is no longer being considered in the MIS/DEIS, and the Section 404/NEPA MOU no longer applies to the project

SECTION 4(F) OF THE U.S. DEPARTMENT OF TRANSPORTATION ACT

November 10, 1999 letter from DTS to the Aloha Stadium manager requesting Section 4(f) coordination regarding the use of the Aloha Stadium overflow parking lot as a park-and-ride facility

August 21, 2000 letter from Aloha Stadium manager to DTS concurring with the assessment of the impact of the proposed facilities as stated in the MIS/DEIS

SECTION 6(F) OF THE LAND AND WATER CONSERVATION FUND

August 21, 2000 letter from DTS to the U.S. Department of the Interior, National Park Service requesting concurrence that the use of the Aloha Stadium overflow parking lot as a park-and-ride facility is consistent with the provisions of Section 6(f)

USE OF CONSERVATION DISTRICT

September 28, 1999 letter from DTS to the State of Hawaii Department of Land and Natural Resources, Land Division (DLNR-LD) regarding the need for a Conservation District Use Permit (CDUP) for the project

October 19, 1999 from DLNR-LD to DTS stating that a CDUP would be required if a tunnel is constructed under Fort Armstrong Channel, the proposal under the SISP, which has since been dropped as an alternative in the MIS/DEIS

U.S. Department
of Transportation
Federal Transit
Administration

REGION IX
Arizona, California,
Hawaii, Nevada, Guam

201 Mission Street
Suite 2210
San Francisco, CA 94105-1839
415-744-3133
415-744-2726 (fax)

MAY 5 1999

Mr. Abraham Wong, Division Administrator
Federal Highway Administration, Hawaii Division
U. S. Department of Transportation
P. O. Box 50206
Honolulu, Hawaii 96850

Dear Mr. Wong:

Re: Primary Corridor Transportation Project

The Federal Transit Administration (FTA), in cooperation with the City and County of Honolulu Department of Transportation Services (DTS) is initiating an environmental impact statement (EIS) for proposed transportation improvements in the Primary Transportation Corridor of the City and County of Honolulu. Since some of the proposed improvements may require Federal Highway Administration (FHWA) approval, we are requesting FHWA to be a joint lead agency.

The Primary Corridor Transportation Project proposes transportation improvements in the primary transportation corridor of Oahu. The corridor extends from Kapolei in the Ewa District to the University of Hawaii at Manoa. The proposed action is intended to address existing and future transportation demand and capacity needs; support socioeconomic growth on the island and in the corridor; improve public transit services; facilitate land use development in the central urban core consistent with the vision for Oahu; and support current planning activities and policies. The alternatives under consideration include a No-Build and several build alternatives that would include an Enhanced Bus/Transportation System Management (TSM) Alternative, a Bus Rapid Transit Alternative, and a Light Rail Transit Alternative. The build alternatives include highway improvements, such as modified freeway ramps and other roadway improvements to provide priority treatment for buses, and transit centers. A Sand Island Bypass Road, including a tunnel from Sand Island to Kakaako, and a conversion of a portion of the existing Nimitz Highway to a parkway, could be part of the build alternatives. Detailed technical reports will be prepared on topics such as transportation, land use, social and economic impacts, finance and cost-effectiveness, visual and aesthetic impacts, noise and vibration, parks and recreation areas, historic resources, air quality and hazardous materials.

Your agency's involvement should entail those areas under its jurisdiction and no direct writing or analysis will be necessary for the document's preparation. The following are activities we will take to maximize interagency cooperation:

1. Invite you to coordination meetings;
2. Consult with you on any relevant technical studies that will be required for the project;
3. Organize joint field reviews with you;
4. Provide you with project information, including study results;
5. Encourage your agency to use the above documents to express your views on subjects within your jurisdiction or expertise; and
6. Include information in the project environmental documents that joint lead and cooperating agencies need to discharge their National Environmental Policy Act (NEPA) responsibilities and any other requirements regarding jurisdictional approvals, permits, licenses, and/or clearances.

You have the right to expect that the EIS will enable you to discharge your jurisdictional responsibilities. Likewise you have the obligation to tell us if, at any point in the process, your needs are not being met. We expect that at the end of the process the EIS will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the EIS and our subsequent record of decision as our decision -making documents and as the basis for permit applications.

We look forward to your response to this request and your role as a joint lead agency on this project. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact Mr. Robert Hom, Director, Office of Planning and Program Development, at (415) 744-3116.

Sincerely,

Leslie T. Rogers
Regional Administrator

cc:
Kenneth Hamayasu
City & County of Honolulu, DTS

AR00016344

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Hawaii Division
Box 50206
300 Ala Moana Blvd., Room 3-306
Honolulu, HI 96850
June 14, 1999

IN REPLY REFER TO
HPR-HI
[720.200]

RECEIVED
JUN 16 P12:04

Leslie Rogers, Regional Administrator
Federal Transit Administration
201 Mission Street
Suite 2210
San Francisco, CA 94105

Subject: Primary Corridor Transportation Project: Cooperating Agency Decision and Comments

In response to your letter of May 5, 1999, we elect to be a cooperating agency on the Primary Corridor Transportation Project (PCTP) proposed by the City and County of Honolulu. Alternatives presented by the City are primarily transit options. We understand that if future conditions warrant, our role could be changed to joint lead agency, and that change can readily be accommodated. We agree with your understanding stated in the May 5 letter that the EIS will enable FHWA to discharge its jurisdictional responsibilities and that the EIS will satisfy our NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Please keep this office fully informed about any highway related impacts or improvements for the PCTP. We are committed to being involved and responsive to FTA, our State, City, and MPO partners, and the public throughout the study effort.

We would like to take this opportunity to remind you that the DEIS/MIS must be fully coordinated with the Oahu Metropolitan Planning Organization (OMPO.) Assumptions on land-use, demographics, traffic, and other data must be consistent between the PCTP and the OMPO planning process, including the Oahu Regional Transportation Plan (ORTP) update. OMPO is responsible for regional transportation planning on Oahu, and the MIS is really a subarea or corridor planning study that is of regional nature, so it should be carried out in the OMPO forum.

The cost for the PCTP alternatives must be determined and considered on a regional basis. The PCTP preferred alternative and all of its transit and highway elements must be fully incorporated into the ORTP by including it in the ORTP update or a plan amendment. Funds for the project must be reasonably available, and as part of the ORTP , the project must be considered with respect to all other transportation priorities in the ORTP to determine its priority and validity in the regional perspective. The project as a whole could consume funding for other priority projects included or being considered for inclusion in the ORTP and the tradeoffs must be presented to the stakeholders and the public for their consideration.

Alternatives presented by the City thus far are primarily transit options. While this focus is due to the high capacity transit placeholder in the existing ORTP, the MIS requirements call for all reasonable alternatives to be considered within the MIS, therefore highway options should be considered now rather than after the MIS is completed by the City. The HDOT and OMPO should ensure that the study includes multi-modal alternatives that support their transportation plans for the corridor.

Please feel free to contact Jonathan Young at (808) 541-2700, ext. 325, if you have any questions.

Sincerely yours,

Abraham Wong
Division Administrator

cc: Toru Hamayasu (DTS)
Kazu Hayashida (HDOT)
Gordon Lum (OMPO)
Pericles Manthos (HWY)
Julia Tsumoto (STP)

U.S. Department
of Transportation
Federal Transit
Administration

REGION IX
Arizona, California,
Hawaii, Nevada, Guam

201 Mission Street
Suite 2210
San Francisco, CA 94105-1839
415-744-3133
415-744-2726 (fax)

MAY 5 1999

Lieutenant Colonel Wally Z. Walters
District Engineer
Honolulu Engineer District
U.S. Army Corps of Engineers
Building 230
Fort Shafter, Hawaii 96858-5440

Dear Lieutenant Colonel Walters:

Re: Primary Corridor Transportation Project

The Federal Transit Administration (FTA), in cooperation with the City and County of Honolulu Department of Transportation Services (DTS) is initiating an environmental impact statement (EIS) for proposed transportation improvements in the Primary Transportation Corridor of the City and County of Honolulu. Since the project will almost certainly require a Section 404 permit and because of your agency's legal jurisdiction over such permits, we are requesting the Corp of Engineers to be a cooperating agency.

The Primary Corridor Transportation Project proposes transportation improvements in the primary transportation corridor of Oahu. The corridor extends from Kapolei in the Ewa District to the University of Hawaii at Manoa. The proposed action is intended to address existing and future transportation demand and capacity needs; support socioeconomic growth on the island and in the corridor; improve public transit services; facilitate land use development in the central urban core consistent with the vision for Oahu; and support current planning activities and policies. The alternatives under consideration include a No-Build and several build alternatives that would include an Enhanced Bus/Transportation System Management (TSM) Alternative, a Bus Rapid Transit Alternative, and a Light Rail Transit Alternative. The build alternatives include highway improvements, such as modified freeway ramps and other roadway improvements to provide priority treatment for buses, and transit centers. A Sand Island Bypass Road, including a tunnel from Sand Island to Kakaako, and a conversion of a portion of the existing Nimitz Highway to a parkway, could be part of the build alternatives. Detailed technical reports will be prepared on topics such as transportation, land use, social and economic impacts, finance and cost-effectiveness, visual and aesthetic impacts, noise and vibration, parks and recreation areas, historic resources, air quality and hazardous materials.

Your agency's involvement should entail those areas under its jurisdiction and no direct writing or analysis will be necessary for the document's preparation. The following are activities we will take to maximize interagency cooperation:

1. Invite you to coordination meetings;
2. Consult with you on any relevant technical studies that will be required for the project;
3. Organize joint field reviews with you;
4. Provide you with project information, including study results;
5. Encourage your agency to use the above documents to express your views on subjects within your jurisdiction or expertise; and
6. Include information in the project environmental documents that cooperating agencies need to discharge their National Environmental Policy Act (NEPA) responsibilities and any other requirements regarding jurisdictional approvals, permits, licenses, and/or clearances.

You have the right to expect that the EIS will enable you to discharge your jurisdictional responsibilities. Likewise you have the obligation to tell us if, at any point in the process, your needs are not being met. We expect that at the end of the process the EIS will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation. Further, we intend to utilize the EIS and our subsequent record of decision as our decision-making documents and as the basis for permit applications.

We look forward to your response to this request and your role as a cooperating agency on this project. If you have any questions or would like to discuss in more detail the project or our agencies' respective roles and responsibilities during the preparation of this EIS, please contact Mr. Robert Hom, Director, Office of Planning and Program Development, at (415) 744-3116.

Sincerely,

for Leslie T. Rogers
Regional Administrator

cc:
Kenneth Hamayasu
City & County of Honolulu, DTS

AR00016346

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF

June 16, 1999

Regulatory Branch

COPY

Mr. Leslie T. Rogers
Regional Administrator
U.S. Department of Transportation
Federal Transit Administration, Region IX
201 Mission Street, Suite 2210
San Francisco, California 94105-1839

Dear Mr. Rogers:

This is in response to your request that the U.S. Army Corps of Engineers participate as a cooperating agency in preparation of the environmental documents for the proposed Primary Corridor Transportation project. Our understanding is that the Federal Transit Administration will act as the lead federal agency.

Under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, the Corps has jurisdiction over waters of the U.S. that may be impacted by the proposed project. Therefore, the Corps will participate as a cooperating agency as provided by 40 CFR 1501.6.

If you have any further questions, please contact Mr. Alan Everson of my staff at (808) 438-9258 ext. 11.

Sincerely,

Wally A. Walters
Lieutenant Colonel, U.S. Army
District Engineer

Copy Furnished:

City and County of Honolulu, Department of Transportation Services, 650 South King St., Honolulu, Hawaii 98813

RECEIVED
99 JUN 17 P 2:28

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

LEADING HAWAII INTO THE NEW MILLENNIUM
1959 2000+

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

July 27, 2000

IN REPLY REFER TO:
STP 8.9624

Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza, Suite 1200
711 Kapiolani Boulevard
Honolulu, Hawaii 96813

AUG 1

Dear Ms. Soon:

Subject: Primary Corridor Transportation Study (PCTS), Cooperating Agency

In accordance with the recommendations from the meeting held on July 17, 2000, with our staffs and the Federal Highway Administration, we are requesting that the Hawaii Department of Transportation (HDOT) be designated as a cooperating agency for the PCTS.

Very truly yours,

Kazu Hayashida

KAZU HAYASHIDA
Director of Transportation

c: Mr. Leslie T. Rogers, Federal Transit Administration, Region IX
Mr. Abraham Wong, Federal Highway Administration
Mr. Gordon G.W. Lum, Oahu Metropolitan Planning Organization

AR00016348

Memorandum

DRAFT

To: File

From: Jason Yazawa

Date: April 30, 1999

Subject: Primary Corridor Transportation Project
Meeting with State Historic Preservation Division (SHPD)
Held on April 8, 1999

In Attendance: Sara Collins, SHPD
Tonia Moy, SHPD
Faith Miyamoto, DTS
David Atkin, PB
Jason Yazawa, PB

Meeting Summary

DTS and PB provided a briefing on the proposed project (status, purpose and need, alternatives, etc.)

DTS and PB proposed that the method of identifying historic buildings, in accordance with Section 106 of the National Historic Preservation Act, be the following:

- secondary data search (previous transit report, Registers, etc.);
- windshield survey to develop a "long list" of possible eligible sites;
- consultation with SHPD to screen the long list and develop a "short list";
- inventory survey the screened short list to evaluate significance (eligibility for the National Register); and
- SHPD agreement on significance evaluations.

DTS and PB proposed that the Area of Potential Effect (APE) for historic buildings be one lot deep from the transit (LRT or BRT) corridor because improvements will be at-grade.

SHPD agreed with the approach above to identify historic buildings. SHPD also generally agreed with the dimensions of the APE along the transit corridor. However, the APE around new ramps, park-and-ride lots or transit centers where such facilities might rise above the grade would be determined on a case-by-case basis.

With regards to archaeological sites, DTS and PB will request SHPD to provide a list of known archaeological sites in the corridor. DTS and PB believe this should suffice with regards to Section 106 requirements because the corridor is generally a built-up, urban

environment and most improvements would be done on existing streets and highways. SHPD agreed, and commented that a more detailed study could be done at a later time if needed. SHPD has GIS records of archaeological sites, which they would share with DTS and PB.

With regards to traditional cultural practices, SHPD recommended that DTS and PB consult with the Office of Hawaiian Affairs (OHA).

Once all historic properties are identified, the Federal Transit Administration will make an effect determination, which would be submitted to the State Historic Preservation Officer for concurrence.

SHPD stated that project compliance with Section 106 would cover State requirements as specified in Chapter 6E of the Hawaii Revised Statutes.

Action Items:

1. PB team to conduct windshield survey to develop "long list" of buildings that could potentially be eligible for the National Register.
2. PB team to coordinate with SHPD to screen "long list" to develop a "short list" of potential sites.
3. PB team to conduct additional studies of "short list" with scope to be determined in consultation with SHPD.
4. PB team to request from SHPD a list of known archaeological sites in the project area that are on or eligible for the National Register.
5. PB team and DTS to meet with OHA to discuss traditional cultural properties in the project area.

cc. Attendees
Susan Killen, PB
Robert Bramen, PB
Ann Yoklavich, Mason Architects
Glenn Mason, Mason Architects

AR00016349

DEPAR ENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD99-00292

May 7, 1999

Dr. Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Attention: Ms. Sara Collins

Dear Dr. Hibbard:

Subject: Primary Corridor Transportation Project

This letter is to follow up on the April 8, 1999 meeting with your staff regarding compliance with Section 106 of the National Historic Preservation Act and Chapter 6E of the Hawaii Revised Statutes.

At that meeting, the approach to identify historic properties (i.e., sites on or eligible for the National Register) that could potentially be affected by the subject project was proposed. Your staff agreed with the approach presented to identify historic buildings, and recommended consultation with the Office of Hawaiian Affairs to identify traditional cultural properties in the project area. I have enclosed for your review and comment draft minutes of the meeting.

With regard to archaeological sites, your staff agreed to provide a list of known archaeological sites in the project area (see enclosed project area map) that are on or eligible for the National Register as well as other pertinent information, such as GIS mapping and files. This information is now formally requested. We would appreciate receiving this information as soon as possible so we can determine whether the proposed project would affect these sites.

If you have any questions, please feel free to contact Faith Miyamoto of the Transportation Planning Division, at 527-6976.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosures

AR00016350

Memorandum

DRAFT

To: File

From: Jason Yazawa

Date: June 11, 1999

Subject: Primary Corridor Transportation Project
Scoping Meeting with the Office of Hawaiian Affairs (OHA)
Held on May 21, 1999

In Attendance: Faith Miyamoto, DTS
C. Sebastian Alcot, OHA
Lynn Lee, OHA
Susan Killen, PB
Jason Yazawa, PB

Meeting Summary

Ms. Miyamoto provided a short briefing on the status of the project, noting that an Environmental Impact Statement (EIS) Preparation Notice and a Notice of Intent were recently issued, and that a public scoping meeting was held. Ms. Miyamoto indicated that the comment period ends on May 24th, but we would work with OHA to get their comments incorporated into the Draft EIS. As background for the discussion, Ms. Killen provided a briefing on the alternatives currently being considered.

Ms. Lee questioned why transportation improvements between Kapolei and Honolulu were being proposed when the vision for Kapolei is to develop a city where people live and work. Ms. Lee thought that the proposed improvements were inconsistent with this vision. Ms. Killen stated that there would still be a need for people to travel between Kapolei and Honolulu. However, the proposed transportation improvements for Kapolei are transit-related, and are meant to provide people with transportation options to driving their cars. Ms. Lee was in agreement with providing transit priority improvements. It was suggested that a glossary would be useful as a guide to the project maps provided.

The Sand Island Bypass / Nimitz Parkway improvements, which are included as part of the BRT and LRT Alternatives, were discussed. Ms. Lee stated that OHA would have concerns about impacts to burials, archaeology and water quality. Mr. Aloot stated that the Sand Island property is categorized as 5A lands, meaning that it was obtained by the State from the federal government before Statehood, and is, therefore, not part of the public land trust (5F lands) for which OHA is entitled to 20

percent revenues. The status of the Sand Island property is in dispute. Therefore, Mr. Aloot stated that this issue would likely be raised (maybe by OHA) during the planning of this project.

Ms. Lee asked what kind of land uses would be expected on Sand Island after the bypass is completed. Ms. Killen answered that Matson and SeaLand would probably remain. However, more commercial uses and greenways along the waterfront would be expected.

Ms. Lee recommended that a cultural impact assessment be conducted for the Sand Island project. The assessment should include fishing practices, burials and archaeological resources. Ms. Lee noted that the manner in which Sand Island was filled might be important in determining the extent of any burials, and that many families still heve strong connections to Sand Island. Ms. Lee stated that Mokauea Island contains about a half-dozen houses on leases from the Department of Land and Natural Resources.

Ms. Lee noted that the Burial Council will not be handling all the burial issues associated with Sand Island. Ms. Lee recommended that consultants from the Hawaiian community be used to help the project resolve issues of handling burials and other artifacts. Mr. Aloot stated that OHA has a Cultural Rights Specialist who could help link the project with the proper community groups.

In response to a question from Ms. Lee regarding the inclusion of the Bypass in the BRT and LRT Alternatives, Ms. Killen stated that for the EIS, the alternatives will include a scenario without the Sand Island Bypass / Nimitz Parkway improvements.

Ms. Lee did not know of any cultural/traditional practices in other parts of the project. Generally, the mauka areas (say areas mauka of Queen Street) are less likely to contain burials. Ms. Lee suggested that there be a check for sinkholes in the Fort Weaver Road area.

For compliance with Section 106 of the National Historic Preservation Act, Ms. Lee recommended consultation with Hui Malama o Kapuna and the Pearl Harbor Hawaiian Civic Club. Ms. Lee agreed to provide contact names and telephone numbers.

The meeting concluded with an agreement to continue to coordinate throughout the duration the project.

Distribution: Meeting participants
Bob Bramen, PB
David Atkin, PB

AR00016351

Memorandum

To: File

From: Jason Yazawa

Date: June 17, 1999

Subject: Primary Corridor Transportation Project
Meeting regarding historic resources held on June 17, 1999

In Attendance: Faith Miyamoto, DTS
Don Hibbard, State Historic Preservation Division (SHPD)
Tonia Moy, SHPD
Glenn Mason, Mason Architects Inc.
Ann Yaklovich, Mason Architects Inc.
Susan Killen, PBQD
Jason Yazawa, PBQD

Meeting Summary

The purpose of this meeting was to discuss the screening of the windshield survey list. In a meeting with SHPD staff on April 8, 1999, it was agreed that a windshield survey be conducted to identify potential historic resources, apart from known resources that were identified from previous reports and listing in the National and Hawaii Registers of Historic Places.

Ms. Killen and Mr. Yazawa provided a short briefing on the status of the project and the alternatives currently being considered. Included in this discussion was an explanation on the possible appearance of the catenaries (poles and overhead wires) under the LRT Alternative.

Ms. Yaklovich provided a briefing on the screening of the initial windshield survey list. The initial survey, conducted on all the affected roadways (LRT, BRT, etc.) of the alternatives, identified 242 sites. In consultation with SHPD, the area of potential effect (APE) of any BRT improvement (e.g., semi-exclusive and exclusive bus lanes; but excluding ramps) would be limited to the roadway. By only including sites along the LRT alignments, 187 sites remained on the list. The second screening involved eliminating sites that are younger than 50 years. In consultation with SHPD, 1952 was set as the cut-off year. After the date research, 112 sites remained. These sites were evaluated on whether they have integrity (a criterion for eligibility to the National Register). Although some of the sites had integrity, Mason Architects judged them not likely to be eligible for the National Register for other reasons. Mason Architects

produced assessment sheets of the sites, which included photography. Copies of the sheets were submitted to SHPD. After evaluating the integrity and potential eligibility the 112 sites, 32 sites remained, which represent sites recommended for an inventory survey.

SHPD staff agreed to review the screening of the windshield survey, which produced the list of sites recommended for further study. Mr. Hibbard stated that they can respond in writing in a couple of weeks.

Mr. Hibbard had the following concerns or provided the following information regarding historic resources:

- changes in curb heights at transit stations should be minimized or be consistent with surrounding curb heights if they are at or adjacent to an historic property;
- all lava rock curbs and sidewalks should be retained;
- check whether there are any 50+ year old traffic signals along the project, since they may be considered historic;
- Bachman Hall and Sinclair Library at the University of Hawaii may be eligible properties;
- the trees along Kapiolani Boulevard are considered an historic landscape; and
- catenaries in the Capitol District may not be a concern because there are already street lamps in the district (response to a PBQD question).

A list of known sites within the project's APE was submitted to SHPD. SHPD staff agreed to review the list, and to alert DTS if there are known sites missing other than those above.

Distribution: meeting participants
Bob Bramen, PB
David Atkin, PB

Over a Century of Engineering Excellence

Memorandum

DRAFT

To: File

From: Jason Yazawa

Date: October 13, 1999

Subject: Primary Corridor Transportation Project
Meeting with State Historic Preservation Division (SHPD)
Held on September 28, 1999

In Attendance: Don Hibbard, SHPD
Sara Collins, SHPD
Tonia Moy, SHPD
Faith Miyamoto, DTS
Ann Yoklavich, Mason
David Atkin, PB
Jason Yazawa, PB

Meeting Summary

Mr. Jason Yazawa, of Parsons Brinckerhoff (PB), provided a briefing on the changes made to the proposed project since the last meeting with staff from the State Historic Preservation Division (SHPD) held on June 17, 1999.

Mr. Yazawa also briefed SHPD staff on the upcoming historic building survey work for the CityTram Waikiki Branch and Sand Island Bypass/Nimitz Parkway elements of the project. Mason Architects will conduct a windshield survey and screening, the same methods used in the previous survey work. SHPD staff agreed with this work.

The archaeological and cultural survey work on the Sand Island Bypass portion of the project was discussed. Mr. Yazawa informed SHPD staff that during a consultation meeting with the Office of Hawaiian Affairs held on May 21, 1999, project staff were informed about native Hawaiians who reside on Mokauea Island under lease from the State Department of Land and Natural Resources. Ms. Sara Collins, an archaeologist with SHPD, was not aware of any other archaeological or cultural resources on or near Sand Island mainly because most, if not all, the island was created by fill material from Honolulu Harbor and Keehi Lagoon. Mr. Don Hibbard, the administrator of SHPD, recalled a report about Sand Island. Ms. Collins said she would try to find it.

Ms. Collins stated that the natural shoreline in the vicinity of Sand Island Bypass/Nimitz Parkway is along Nimitz Highway. The area makai of Nimitz Highway is fill material. Ms. Collins stated that construction at Pier 39-40 (Young Brothers terminal) uncovered

a burial, but this discovery is unusual because the current Pier 39-40 is beyond the natural shoreline. A known archaeological resource in the project area is a buried fishpond in the vicinity of Nimitz Highway near Keehi Interchange. Mr. Yazawa stated that the unstable soil conditions in this area might require deep foundations for the alternative alignment of the Bypass near Nimitz Highway. Ms. Collins stated that during construction monitoring would be needed in this area if this alignment is selected.

With regards to the Waikiki Branch of the CityTram, Ms. Collins stated that there could be potential burials along Richards and Kamakee Streets. Mr. David Atkin noted, however, that construction on city streets for CityTram would only involve repavement, and that deep excavation would not be necessary. Ms. Collins is also aware of burials in the Fort DeRussy area, along Kalia Road. These burials are only 4 to 6 feet below the surface. The recent Hale Koa Hotel construction uncovered many burials. However, Ms. Collins said that no burials have been uncovered so far at the Hilton Hawaiian Village construction site (old dome).

Ms. Collins is mindful that archaeological surveys would not be possible because any resource in the project area would be buried. The use of existing data, such as the City's Geographic Information System, would be acceptable to identify archaeological sites. However, Ms. Collins raised the possibility of an "adverse effect" on unknown burials because monitoring (arguably a form of data recovery) would be required along certain sections and stations of the CityTram. The new Section 106 regulations require an "adverse effect" determination if data recovery is required, even though the resource does not have to be preserved (under the old regulations, this would be a "no adverse effect" determination). Ms. Collins raised the possibility of conducting a phased Section 106 process to address the problem of unknown archaeological sites. Ms. Collins was not sure if a phased Section 106 process is applicable to the project. Mr. Hibbard questioned how such a process could be used since Section 106 is used in the National Environmental Policy Act process to select the preferred alternative. Mr. Yazawa said he would research into the new regulations to see if a phased Section 106 process makes sense for the project.

The group discussed reconciling the "Mason list" of 32 potential historic building sites within the Area of Potential Effect (APE) and the "SHPD list" of approximately 80 potential sites. The goal of this discussion is to come up with one list of potential historic sites (excluding the CityTram Waikiki Branch and Sand Island Bypass, which will be discussed at a later date), which will be the subject of further research (i.e., inventory survey). The following was agreed to by the group to reconcile the lists:

- Despite changes made to the proposed project (see above), alternative corridors for the CityTram have not been eliminated (e.g., North and South King Streets), and these corridors may be used as alternatives in the upcoming draft environmental impact statement (EIS). Therefore, no historic resource within these corridors' APE can be eliminated at this time.

- The 50-year cut-off used to produce the Mason list was set at 1952. The SHPD list contains many buildings constructed in the late 1950s and early 1960s. It was agreed that the cut-off year be moved to 1959, except in cases where a building

AR00016353

DRAFT

may be exceptionally important, such as the old Kamehameha Drive-In Theater (the last of its kind). Some of the buildings identified by SHPD staff require date research.

- Some of the sites on the SHPD list were included in the 1989 inventory survey report prepared for the Honolulu Rapid Transit Project. SHPD staff agreed that the information provided in the 1989 report is acceptable for the current project.

- Ms. Ann Yoklavich, of Mason Architects, questioned the integrity of some of the buildings on the SHPD list because she felt that they were altered too much. SHPD staff requested that most of these buildings remain on the list.

Ms. Yoklavich will prepare a new list combining the Mason and SHPD lists, and taking into account the discussion above. SHPD suggested that the project use a "Kauai-Inventory-type form" in conducting the inventory survey.

Mr. Yazawa informed SHPD staff that the project plans to secure the State Historic Preservation Officer's (SHPO) concurrence on the National Register eligible properties in the APE prior to public release of the Draft EIS. Since the current schedule has the Draft EIS completed in early 2000. The concurrence request letter to the SHPO would be submitted in November or December.

Action Items:

1. Ms. Collins to find a report about archeeological resources on Sand Island.
2. Mr. Yazawa to research the possibility of using a phased Section 106 process.
3. Mason Architects to conduct windshield survey and screening of the CityTram Waikiki Branch and Sand Island Bypass elements of the project.
4. PB, DTS, SHPD and Mason Architects to discuss results of Mason Architect's windshield survey and screening.
5. Ms. Yaklovich to prepare a new list of potential historic buildings requiring an inventory survey.
6. Mason Architects to conduct inventory survey.

cc. Attendees
Susan Killen, PB
Robert Bramen, PB

AR00016354

Memorandum

To: Attendees

From: Colette Sakoda

Date: November 12, 1999

Subject: Primary Corridor Transportation Project
Meeting with State Historic Preservation Division
Held on November 8, 1999

In Attendance: Don Hibbard, SHPD
Tonia Moy, SHPD
Faith Miyamoto, DTS
Barbara Shideler, Mason Architects
Glenn Mason, Mason Architects
Susan Killen, PB
Colette Sakoda, PB

Meeting Summary

Susan Killen provided a briefing on the changes made to the proposed project that consists of the Sand Island Parkway and Waikiki extension alternatives appended to the CityTram route. Also discussed was the technology update in that there will be no overhead catenary; instead the vehicle will be electrically powered through a power strip embedded at surface level in the street pavement.

Barbara Shideler reviewed the supplemental list of properties located within the expanded project alignments with the group. Criteria utilized in the selection of the sites were:

1. Properties and buildings with dates before 1960
2. Area of Potential Effects (APE) for historic buildings would be one lot deep from an affected roadway
3. Records research of the National Register and Hawaii Register, review of Historic Sites Inventory Report for the Honolulu Rapid Transit Development Project (1989), and windshield survey

The supplemental list geographically consisted of potential sites along the Sand Island Parkway, Waikiki, and Kakaako extensions of the CityTram route. This list will be combined with the original list contained in the Historical/Cultural Resources Impacts Technical Report, May 1999.

Potential impacts on trees on Kapiolani Boulevard are still an issue for further evaluation. It may in part depend on whether the CityTram is curb side running or requiring taking the median within the Kapiolani Boulevard right-of-way, both of which are possible locations of some significant trees. Another issue that is being investigated by PB is the potential impact

on existing curbs. Depending again on the location, some curbs may require section 106 review due to historic significance.

Don Hibbard reviewed and approved the inventory survey form proposed for use by Mason Architects. The format is the same that was utilized for a Kauai project previously reviewed and approved by the State Historic Preservation Division.

Susan Killen recommended that for the next phase of the evaluation, priority be placed on properties most vulnerable due to proposed transit station locations, park and ride facilities, and stops. Properties that would not be affected should be looked at to possibly shorten the list.

Our target is to submit the Draft EIS to the Federal Transit Administration (FTA) in January, 2000. The APE list with a preliminary determination of potential effects will be included in the document.

Action Items:

1. Mason Architects will proceed with inventory survey with priority on properties that would be most vulnerable due to proximity to proposed transit stations, park and ride facilities, and stops.
2. PB will continue research on proposed locations of trees on Kapiolani Boulevard relative to the CityTram use of right-of-way; research will also continue on potential effects on existing curbs by the alignment.

cc: Attendees
Susan Killen
Robert Bramen

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AR00016355

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD00-00058

February 8, 2000

Don J. Hibbard, Ph.D.
Administrator, State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Attention: Ms. Tonia Moy

Dear Dr. Hibbard:

Subject: Primary Corridor Transportation Project

As part of the ongoing Section 106 consultation process for the subject project, under separate cover, the following was transmitted for your information:

1. One (1) set of completed inventory survey cards for sites built prior to 1960 in the area of potential effect (APE)

2. List of Potential and Known Historic Resources

3. Preliminary Effect Assessment of Historic Period Resources

Should you have any questions regarding this matter, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosures

AR00016356

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

February 25, 2000

TPD00-00090

Don J. Hibbard, Ph.D.
Administrator, State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Attention: Ms. Tonia Moy

Dear Dr. Hibbard:

Subject: Primary Corridor Transportation Project

The purpose of this letter is to request the reduction of the Area of Potential Effect (APE) agreed upon during discussions held in April, 1999.

At the November 18, 1999 coordination meeting, the following major changes to the proposed in-town transit alignment and technology were discussed:

1. Figure 1 illustrates the revised transit alignment. Figures 2 and 3 are artist's renderings of what a transit stop at a median and at curbside would look like. North King, South Beretania, and South King Streets are no longer being considered as parts of the transit alignment. A Waikiki branch has now been added to the alignment.

2. The system alternatives currently under consideration do not include overhead catenary, as the previous alternatives did. Potential vehicle technologies include Tram-on-Tires, hybrid powered, fuel cell or embedded power collection system, Articulated Electric Hybrid (diesel, propane, or fuel cell), and Articulated Electric Bus powered by touchable embedded power collection system.

We believe that the above provides justification for the reduction of the APE from one parcel deep along the current in-town transit alignment to only the road right-of-way. Please advise us of your decision in this matter.

Should you have any questions or wish to discuss this matter further, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

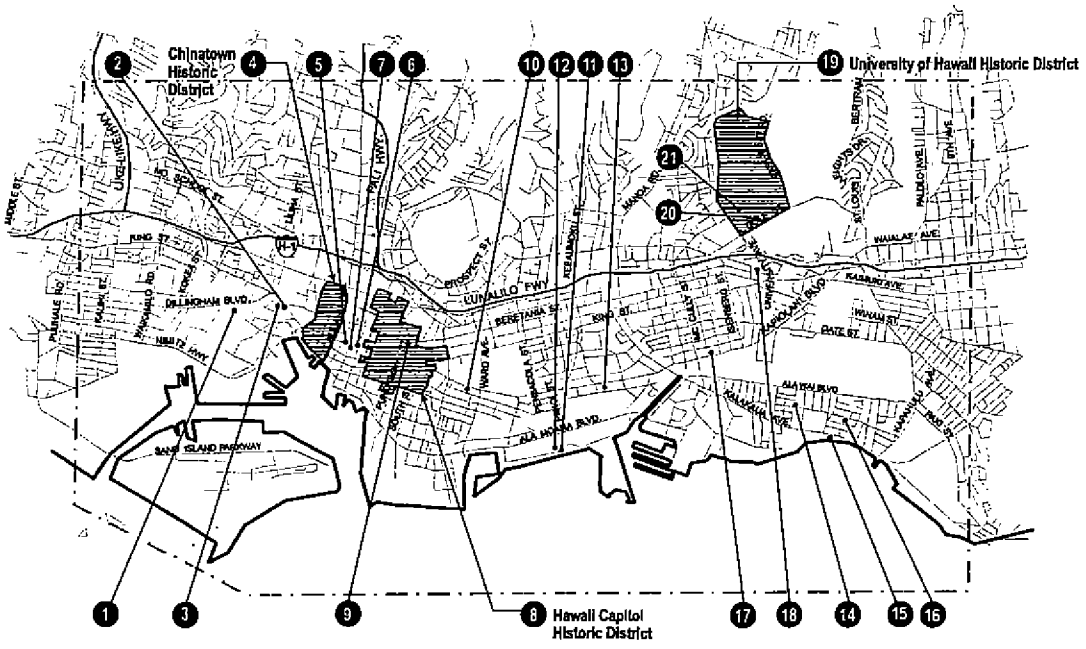
Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosures

AR00016357

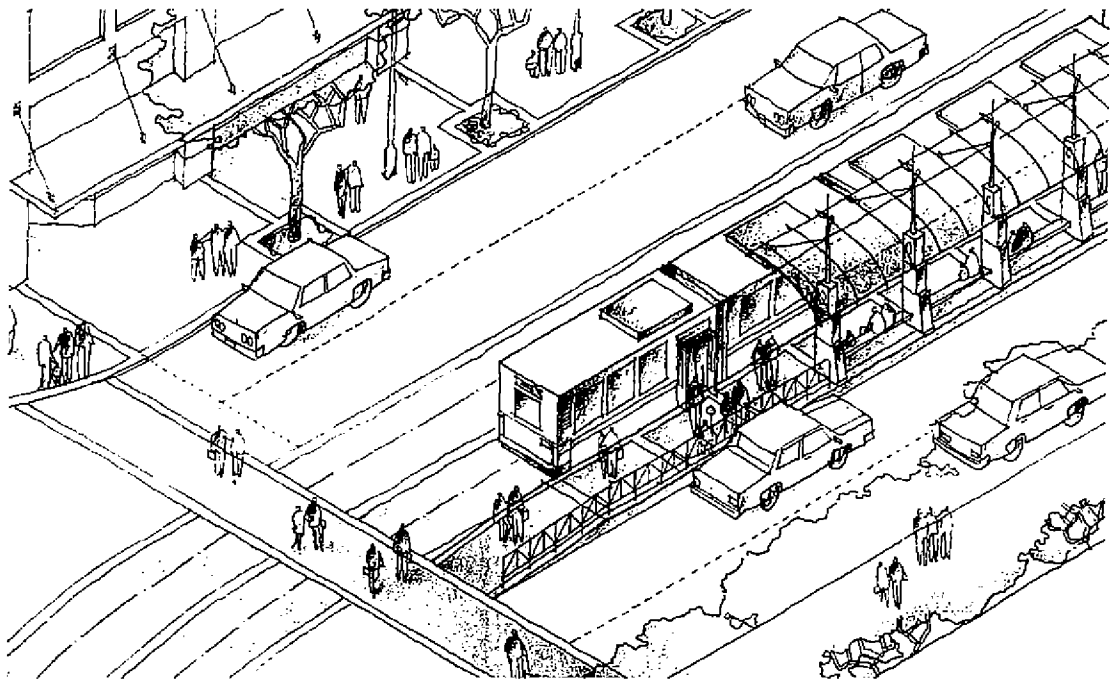


SOURCES:
ESRI ATlas GIS v4.0 1996; Information Delivery System (IDS), March 1998; City and County of Honolulu, October 1998; Mason Architects Inc., May 1999.

* Numbers correspond to Historic-Period Resources listed on Table 3.10-1

Scale: 0 .25 .50 mi
Scale: 0 .5 1 km

Historic-Period Resources; Kalihi To University Of Hawaii — **Figure 1**



Typical In-Town BRT Median Stop — **Figure 2**

	Typical In-Town BRT Curb Transit Stop	Figure 3

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

TIMOTHY E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

March 8, 2000

LOG NO: 25048
DOC NO: 0003tm03
Architecture

Ms. Cheryl D. Soon
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

SUBJECT: Section 106 Consultation
Primary Corridor Transportation
TMK: Various, Oahu

Thank you for your letter regarding the reduction of the Area of Potential Effect (APE) for the Primary Corridor Transportation Project (PCTP). Since the new proposed system no longer utilizes overhead catenary, we concur that the APE may be reduced to road right-of-way along the in-town transit alignment for most of the project. However, wherever there will be a transit station or special ramp or park-and-ride facility, we believe the APE should include the neighboring parcels.

Thank you for the opportunity to comment. Should you have further questions, please call Tonia Moy at 692-8030.

Aloha,

TIMOTHY E. JOHNS
State Historic Preservation Officer

TM:jk

U.S. Department
of Transportation
Federal Transit
Administration

REGION IX
Arizona, California,
Hawaii, Nevada, Guam

201 Mission Street
Suite 2210
San Francisco, CA 94105-1839
415-744-3133
415-744-2726 (fax)

MAY 12 1999

Mr. Robert Smith
Ecological Region Manager
Fish & Wildlife Service
U.S. Department of the Interior
300 Ala Moana Boulevard, Suite 3108
Honolulu, Hawaii 96850

Dear Mr. Smith:

Subject: Primary Corridor Transportation Project
Section 7 Consultation

The Federal Transit Administration and the City & County of Honolulu are currently preparing a National Environmental Policy Act environmental impact statement (EIS) for the subject project. As shown on Figure 1.1 of the enclosed EIS Preparation Notice, the study area is from Kapolei to Kahala. The alternatives currently being considered for analysis in the Draft EIS include an Enhanced Bus/Transportation System Management (TSM) Alternative, Bus Rapid Transit (BRT) Alternative and Light Rail Transit (LRT) Alternative.

To be in compliance with Section 7 of the Endangered Species Act, we request that the U.S. Fish & Wildlife Service identify the listed and proposed to be listed endangered and threatened species in the project area.

If you have any questions or need additional information, please call Kenneth Hamayasu of the City and County of Honolulu Department of Transportation Services at 527-6978.

Sincerely,

Leslie T. Rogers
Regional Administrator

Enclosure
cc:
Kenneth Hamayasu
City & County of Honolulu, DTS

AR00016360

RECEIVED

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3122
Box 50088
Honolulu, Hawaii 96850

In Reply Refer To: LTG

MAY 24 1999

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Re: Notice to Prepare Draft Environmental Impact Statement and Request for a Species List for the Primary Corridor Transportation Project, Oahu, Hawaii (ER 99/397)

Dear Ms. Soon:

The U.S. Fish and Wildlife Service (Service) has reviewed your April 21, 1999, letter notifying us that you intend to prepare a Draft Environmental Impact Statement (DEIS) for the proposed project referenced above. We have also reviewed a letter received from the Federal Transit Administration (FTA), dated May 12, 1999, requesting a list of endangered and threatened species found within the proposed project area. The proposed project is sponsored by the City and County of Honolulu Department of Transportation Services (DTS) and the U. S. Department of Transportation, FTA. This letter has been prepared under the authority of and in accordance with provisions of the National Environmental Policy Act of 1969 [42 U.S.C. 4321 *et seq.*; 83 Stat. 852], as amended, the Fish and Wildlife Coordination Act of 1934 [16 U.S.C. 661 *et seq.*; 48 Stat. 401], as amended, the Endangered Species Act of 1973 [16 U.S.C. 1531 *et seq.*; 87 Stat. 884], as amended, and other authorities mandating Department of the Interior concern for environmental values. Based on these authorities, the Service offers the following comments for your consideration.

The proposed project involves improving Oahu's primary transportation corridor, which extends from Kapolei in the Ewa District, past Pearl Harbor, Honolulu International Airport, downtown Honolulu, and continues eastward to the University of Hawaii at Manoa. The corridor is approximately 27 miles in length and at most 4 miles in width. The alternatives currently being considered include a No-Build Alternative, Enhanced Bus/Transportation System Management Alternative, a Bus Rapid Transit, and a Light Rail Transit alternative.

The Service has reviewed the information that was provided in your letter and pertinent information in our files, including maps and records prepared by the Hawaii Heritage Program of The Nature Conservancy. The Hawaiian hoary bat (*Lasiurus cinereus semotus*), federally listed as endangered, has been sporadically sighted within the metropolitan area of the proposed project. The following waterbird species, federally listed as endangered, have been observed in wetland areas within the project area:

a. Hawaiian coot (*Fulica americana alai*);
b. Hawaiian duck (*Anas wyvilliana*);
c. Hawaiian common moorhen (*Gallinula chloropus sandvicensis*); and
d. Hawaiian stilt (*Himantopus mexicanus knudseni*).

The following federally endangered plant species have been observed within the Ewa area of the Primary Transportation Corridor (refer to Figure 1.1 of the DEIS Preparation Notice):

a. *Abutilon menziesii* (ko`oloa`ula);
b. *Centaurium sebaeoides* (`awiwi); and
c. *Marsilea villosa* (`ihi`ihi).

In addition, the plant *Torulinium odoratum* subsp. *auriculatum* (pu`uka`a), a Species of Concern, has been reported within the Ewa area of the Primary Transportation Corridor. However, it has not been observed there since 1916. The term "Species of Concern" describes species that are of concern to the Service, but require further biological research and field study to resolve their conservation status. These species are not currently federally protected.

The DEIS should address any potential project-related impacts to these and other native Hawaiian species and propose mitigation measures that avoid unnecessary impacts and minimize unavoidable impacts. For example, we recommend that these measures include avoidance of unnecessary destruction of vegetated areas containing ko`oloa`ula or any other federally listed plant species.

The Service appreciates the opportunity to provide this technical assistance, and we look forward to reviewing a copy of the DEIS when it is available. If you have questions regarding these comments, please contact Fish and Wildlife Biologist Leila Gibson by telephone at (808) 541-3441 or by facsimile transmission at (808) 541-3470.

Sincerely,

Robert P. Smith
Pacific Islands Manager

AR00016361

cc: FWS - Region 1, Portland
OEPC, Washington, D.C.
FTA, San Francisco
USEPA, Honolulu
DOFAW, Hawaii
CZMP, Hawaii

AR00016362

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD00-00243

May 4, 2000

Mr. Abraham Wong, Division Administrator
Hawaii Division
Federal Highway Administration
U.S. Department of Transportation
Box 50206
Honolulu, Hawaii 96850

Dear Mr. Wong:

Subject: Primary Corridor Transportation Project

We are writing to request your assistance and formal participation in an important transportation project in the City and County of Honolulu known as the Primary Corridor Transportation Project. We understand that the "Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii" (copy enclosed), looks towards consultation in the project development process.

The Federal Transit Administration and the City and County of Honolulu are currently preparing a NEPA environmental impact statement (EIS) for the subject project. Transportation improvements are being proposed for the primary transportation corridor, which stretches from Kapolei to Kahala. One of the alternatives being considered (Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP)) includes an approximately one kilometer (0.6 mile) tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing. These actions would require an individual permit from the U.S. Army Corps of Engineers. The NEPA EIS that is being prepared for the subject project proposes increasing bridge capacity across Kalihi Channel. However, the preferred option is a tunnel to replace the Kalihi Channel Bridge, as recommended in the State of Hawaii's long-range harbor master plan. Initial studies of this tunnel are currently being conducted and its impacts will be documented in a separate environmental document by the State of Hawaii Department of Transportation.

As set forth in the MOU, the involvement of the signatory agencies would be limited to issues pertaining to waters of the United States, including wetlands, and associated sensitive species,

including threatened and endangered species, regarding the BRT/SISP Alternative. Although the SISP component would not have any long-term impacts, construction related impacts are anticipated. The impacts to water quality from the dredging of the Fort Armstrong Channel would be similar in many respects to the water quality impacts of normal maintenance dredging in Honolulu Harbor. Widening of the existing Kalihi Channel Bridge and construction of a new bridge would require pile driving and demolition, which may result in increased turbidity. The impacts of the proposed construction in the Fort Armstrong and Kalihi Channels would be mostly indirect and limited to those associated with increased suspended solids and turbidity loads. The project should not impact any sensitive species.

Enclosed are copies of the following components of the Draft EIS that is being prepared:

Chapter 1 Purpose and Need
Chapter 2 Alternatives Considered
Appendix B Conceptual Design Drawings, Bus Rapid Transit
Appendix C Conceptual Design Drawings, Sand Island Scenic Parkway and Marina Road
Appendix D Screening of Alternatives

Your expeditious review of these documents and concurrence on the NEPA purpose and need, Section 404 basic and overall project purpose, criteria for alternative selection and project alternatives to be evaluated in the Draft EIS will be greatly appreciated.

The MOU states that concurrence or non-concurrence must be a written determination that either the information to date is adequate for this stage and the project may proceed to the next stage without modification, that the information to date is not adequate for this stage, or that the potential adverse impacts of the project are severe.

We ask for your attention to this matter to expedite the concurrence process. In order to facilitate your review, Ms. Faith Miyamoto of the Transportation Planning Division will be contacting you to schedule a meeting where we can discuss your input and review.

Should you have any questions regarding this matter, please contact Kenneth Hamayasu at (808) 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosures

cc: Mr. Leslie Rogers, Federal Transit Administration (without enclosures)

AR00016363

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Hawaii Division
300 Ala Moana Blvd., Room 3-306
Box 50206
Honolulu, HI 96850
June 26, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Thank you for the opportunity to participate in the Primary Corridor Transportation Project during the project development process under the National Environmental Policy Act and Clean Water Act Section 404 Memorandum of Understanding. As a Federal cooperating agency to the Federal Transit Administration, we will be communicating our recommendations and concerns directly to our Federal transportation partner.

We believe the multi-modal framework proposed for this important transportation project is unique in terms of its potential mobility benefits and project development challenges. We look forward to working with you on this innovative corridor project. Laura Kong will be our point of contact for this project. If you have any questions or need assistance, please do not hesitate to call her at (808) 541-2700, extension 328 (Email: laura.kong@fhwa.dot.gov).

Sincerely,

Abraham Wong
Division Administrator

cc: Leslie Rodgers, FTA
Robert Hom, FHWA, Western Resource Center

AWong:di

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 17, 2000

TPD6/00-03037R

Mr. Abraham Wong, Division Administrator
Hawaii Division
Federal Highway Administration
U.S. Department of Transportation
Box 50206
Honolulu, Hawaii 96850

Dear Mr. Wong:

Subject: Primary Corridor Transportation Project

Thank you for your June 26, 2000 letter regarding participation during the project development process under the "Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii." The Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP) Alternative, which included a tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing, was the trigger for the MOU coordination. As the agency review of and consultation on the project progressed, it was agreed that the Sand Island Scenic Parkway would best be reviewed in the context of the Oahu Regional Transportation Plan. Therefore, this letter is to inform you that the discussion of Sand Island Scenic Parkway will continue in that arena and that it will be separated from the Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

The time and effort expended to review the project documents are greatly appreciated. The comments and recommendations included in your June 26, 2000 letter to Leslie Rogers, Regional Administrator, Federal Transit Administration have been reviewed. Close coordination will continue to ensure that the comments and concerns that were not addressed by the elimination of the BRT/SISP Alternative are resolved.

Should you have any questions regarding this matter, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Ms. Donna Turchie
Federal Transit Administration -Region IX

AR00016364

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD00-00240

May 4, 2000

Mr. George Young
Chief, Regulatory Branch
U. S. Army Engineer District, Honolulu
Building 230
Fort Shafter, Hawaii 96858-5440

Dear Mr. Young:

Subject: Primary Corridor Transportation Project

We are writing to request your assistance and formal participation in an important transportation project in the City and County of Honolulu known as the Primary Corridor Transportation Project. We understand that the "Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii" (copy enclosed), looks towards consultation in the project development process. Initial discussions regarding this project have taken place with members of your staff.

The Federal Transit Administration and the City and County of Honolulu are currently preparing a NEPA environmental impact statement (EIS) for the subject project. Transportation improvements are being proposed for the primary transportation corridor, which stretches from Kapolei to Kahala. One of the alternatives being considered (Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP)) includes an approximately one kilometer (0.6 mile) tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing. These actions would require an individual permit from the U.S. Army Corps of Engineers. The NEPA EIS that is being prepared for the subject project proposes increasing bridge capacity across Kalihi Channel. However, the preferred option is a tunnel to replace the Kalihi Channel Bridge, as recommended in the State of Hawaii's long-range harbor master plan. Initial studies of this tunnel are currently being conducted and its impacts will be documented in a separate environmental document by the State of Hawaii Department of Transportation.

As set forth in the MOU, the involvement of the signatory agencies would be limited to issues pertaining to waters of the United States, including wetlands, and associated sensitive species, including threatened and endangered species, regarding the BRT/SISP Alternative. Although the

SISP component would not have any long-term impacts, construction related impacts are anticipated. The impacts to water quality from the dredging of the Fort Armstrong Channel would be similar in many respects to the water quality impacts of normal maintenance dredging in Honolulu Harbor. Widening of the existing Kalihi Channel Bridge and construction of a new bridge would require pile driving and demolition, which may result in increased turbidity. The impacts of the proposed construction in the Fort Armstrong and Kalihi Channels would be mostly indirect and limited to those associated with increased suspended solids and turbidity loads. The project should not impact any sensitive species.

Enclosed are copies of the following components of the Draft EIS that is being prepared:

Chapter 1 Purpose and Need
Chapter 2 Alternatives Considered
Appendix B Conceptual Design Drawings, Bus Rapid Transit
Appendix C Conceptual Design Drawings, Sand Island Scenic Parkway and Marina Road
Appendix D Screening of Alternatives

Your expeditious review of these documents and concurrence on the NEPA purpose and need, Section 404 basic and overall project purpose, criteria for alternative selection and project alternatives to be evaluated in the Draft EIS will be greatly appreciated.

The MOU states that concurrence or non-concurrence must be a written determination that either the information to date is adequate for this stage and the project may proceed to the next stage without modification, that the information to date is not adequate for this stage, or that the potential adverse impacts of the project are severe.

We ask for your attention to this matter to expedite the concurrence process. In order to facilitate your review, Ms. Faith Miyamoto of the Transportation Planning Division will be contacting you to schedule a meeting where we can discuss your input and review.

Should you have any questions regarding this matter, please contact Kenneth Hamayasu at (808) 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosures

cc: Mr. Leslie Rogers, Federal Transit Administration (without enclosures)

AR00016365

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF

June 8, 2000

Regulatory Branch

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

This letter responds to your request, dated May 4, 2000, for our participation in the Primary Corridor Transportation Project under the Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii.

We have reviewed the preliminary draft chapters and appendices you provided and concur that the information to date is adequate for this stage and the project may proceed to the next stage without modification.

If you have any questions concerning this matter, please contact William Lennan of my staff at 438-6986, and reference File No. 990000338.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4525 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

July 19, 2000

TPD00-00368

Mr. George P. Young, P.E.
Chief, Regulatory Branch
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Attention: Mr. William Lennan
File No. 990000338

Dear Mr. Young:

Subject: Primary Corridor Transportation Project

In May of this year, your assistance and formal participation was requested in the project development process for the Primary Corridor Transportation Project. This was done pursuant to the "Memorandum of Understanding (MOU), National Environmental Policy Act and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii." The Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP) Alternative, which included a tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing, was the trigger for the MOU coordination. As the agency review of the project progressed, concerns were expressed regarding SISP's role. Therefore, this letter is to inform you that the SISP portion of the subject project will not be pursued at this time. The BRT/SISP Alternative will be deleted from consideration in the Major Investment Study/Draft Environmental Impact Statement that is being prepared.

We thank you for the time and effort expended to review the project documents in a timely manner. Although the decision to defer SISP will annul the MOU process, we will continue to keep you informed about the subject project.

Should you have any questions concerning this matter, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Ms. Donna Turchie
Federal Transit Administration – Region IX

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD00-00242

May 4, 2000

Mr. John Naughton
Pacific Islands Area Office
National Marine Fisheries Service
1601 Kapiolani Boulevard, Suite 1110
Honolulu, Hawaii 96814-4700

Dear Mr. Naughton:

Subject: Primary Corridor Transportation Project

We are writing to request your assistance and formal participation in an important transportation project in the City and County of Honolulu known as the Primary Corridor Transportation Project. We understand that the "Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii" (copy enclosed), looks towards consultation in the project development process. Initial discussions regarding this project occurred at an agency coordination meeting held in August 1999.

The Federal Transit Administration and the City and County of Hooolulu are currently preparing a NEPA environmental impact statement (EIS) for the subject project. Transportation improvements are being proposed for the primary transportation corridor, which stretches from Kapolei to Kahala. One of the alternatives being considered (Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP)) includes an approximately one kilometer (0.6 mile) tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing. These actions would require an individual permit from the U.S. Army Corps of Engineers. The NEPA EIS that is being prepared for the subject project proposes increasing bridge capacity across Kalihi Channel. However, the preferred option is a tunnel to replace the Kalihi Channel Bridge, as recommended in the State of Hawaii's long-range harbor master plan. Initial studies of this tunnel are currently being conducted and its impacts will be documented in a separate environmental document by the State of Hawaii Department of Transportation.

As set forth in the MOU, the involvement of the signatory agencies would be limited to issues pertaining to waters of the United States, including wetlands, and associated sensitive species, including threatened and endangered species, regarding the BRT/SISP Alternative. Although the

SISP component would not have any long-term impacts, construction related impacts are anticipated. The impacts to water quality from the dredging of the Fort Armstrong Channel would be similar in many respects to the water quality impacts of normal maintenance dredging in Honolulu Harbor. Widening of the existing Kalihi Channel Bridge and construction of a new bridge would require pile driving and demolition, which may result in increased turbidity. The impacts of the proposed construction in the Fort Armstrong and Kalihi Channels would be mostly indirect and limited to those associated with increased suspended solids and turbidity loads. The project should not impact any sensitive species.

Enclosed are copies of the following components of the Draft EIS that is being prepared:

Chapter 1 Purpose and Need
Chapter 2 Alternatives Considered
Appendix B Conceptual Design Drawings, Bus Rapid Transit
Appendix C Conceptual Design Drawings, Sand Island Scenic Parkway and Marina Road
Appendix D Screening of Alternatives

Your expeditious review of these documents and concurrence on the NEPA purpose and need, Section 404 basic and overall project purpose, criteria for alternative selection and project alternatives to be evaluated in the Draft EIS will be greatly appreciated.

The MOU states that concurrence or non-concurrence must be a written determination that either the information to date is adequate for this stage and the project may proceed to the next stage without modification, that the information to date is not adequate for this stage, or that the potential adverse impacts of the project are severe.

We ask for your attention to this matter to expedite the concurrence process. In order to facilitate your review, Ms. Faith Miyamoto of the Transportation Planning Division will be contacting you to schedule a meeting where we can discuss your input and review.

Should you have any questions regarding this matter, please contact Kenneth Hamayasu at (808) 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosures

cc: Mr. Leslie Rogers, Federal Transit Administration (without enclosures)

AR00016368

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
Pacific Island Area Office
1601 Kapiolani Boulevard, Suite 1110
Honolulu, Hawaii 96814-0047

June 9, 2000

Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Blvd., Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

The National Marine Fisheries Service (NMFS) has received the information sent by you on the Primary Corridor Transportation Project, City and County of Honolulu, dated May 4, 2000. We have reviewed the components of the Draft EIS for the project under the multi-agency Memorandum of Understanding (MOU), Integration Process for Surface Transportation in the State of Hawaii. We offer the following comments for your consideration concerning the adequacy of the information provided to date.

NMFS believes that the majority of the proposed Primary Corridor Project will have minimal impacts on those resources and habitats for which we have a responsibility. The exception will be the alternative which includes the proposed tunnel under the Fort Armstrong Channel of Honolulu Harbor and the proposed improvements to the Kalihi Channel crossing. However, we have reviewed the information submitted and concur that it is adequate for this early stage of the project. We have no objection with the project proceeding to the next stage, as presented in the compoocnts of the Draft EIS.

We appreciate the opportunity to review the project at this early stage under the MOU. Should you have any questions please contact John Naughton (973-2935x211) of my staff at our Pacific Islands Area Office in Honolulu.

Sincerely,

C. Kamella

Charles Kamella
Administrator
Pacific Islands Area Office

cc: Federal Transit Administration, Region 9

AR00016369

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

July 19, 2000

TPD00-00364

Mr. Charles Karnella, Administrator
Pacific Islands Area Office
Southwest Region
National Marine Fisheries Service
1601 Kapiolani Boulevard, Suite 1110
Honolulu, Hawaii 96814-0047

Attention: Mr. John Naughton

Dear Mr. Karnella:

Subject: Primary Corridor Transportation Project

In May of this year, your assistance and formal participation was requested in the project development process for the Primary Corridor Transportation Project. This was done pursuant to the "Memorandum of Understanding (MOU), National Environmental Policy Act and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii." The Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP) Alternative, which included a tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing, was the trigger for the MOU coordination. As the agency review of the project progressed, concerns were expressed regarding SISP's role. Therefore, this letter is to inform you that the SISP portion of the subject project will not be pursued at this time. The BRT/SISP Alternative will be deleted from consideration in the Major Investment Study/Draft Environmental Impact Statement that is being prepared.

We thank you for the time and effort expended to review the project documents in a timely manner. Although the decision to defer SISP will annul the MOU process, we will continue to keep you informed about the subject project.

Should you have any questions concerning this matter, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Ms. Donna Turchie
Federal Transit Administration

AR00016370

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD00-00241

May 4, 2000

Mr. Paul Henson, Field Supervisor
Division of Ecological Services
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

Dear Mr. Henson:

Subject: Primary Corridor Transportation Project

We are writing to request your assistance and formal participation in an important transportation project in the City and County of Honolulu known as the Primary Corridor Transportation Project. We understand that the "Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii" (copy enclosed), looks towards consultation in the project development process. Initial discussions regarding this project occurred at an agency coordination meeting held in August 1999.

The Federal Transit Administration and the City and County of Honolulu are currently preparing a NEPA environmental impact statement (EIS) for the subject project. Transportation improvements are being proposed for the primary transportation corridor, which stretches from Kapolei to Kahala. One of the alternatives being considered (Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP)) includes an approximately one kilometer (0.6 mile) tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing. These actions would require an individual permit from the U.S. Army Corps of Engineers. The NEPA EIS that is being prepared for the subject project proposes increasing bridge capacity across Kalihi Channel. However, the preferred option is a tunnel to replace the Kalihi Channel Bridge, as recommended in the State of Hawaii's long-range harbor master plan. Initial studies of this tunnel are currently being conducted and its impacts will be documented in a separate environmental document by the State of Hawaii Department of Transportation.

As set forth in the MOU, the involvement of the signatory agencies would be limited to issues pertaining to waters of the United States, including wetlands, and associated sensitive species, including threatened and endangered species, regarding the BRT/SISP Alternative. Although the

SISP component would not have any long-term impacts, construction related impacts are anticipated. The impacts to water quality from the dredging of the Fort Armstrong Channel would be similar in many respects to the water quality impacts of normal maintenance dredging in Honolulu Harbor. Widening of the existing Kalihi Channel Bridge and construction of a new bridge would require pile driving and demolition, which may result in increased turbidity. The impacts of the proposed construction in the Fort Armstrong and Kalihi Channels would be mostly indirect and limited to those associated with increased suspended solids and turbidity loads. The project should not impact any sensitive species.

Enclosed are copies of the following components of the Draft EIS that is being prepared:

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Appendix C Conceptual Design Drawings, Sand Island Scenic Parkway and Marina Road
Appendix D Screening of Alternatives

Your expeditious review of these documents and concurrence on the NEPA purpose and need, Section 404 basic and overall project purpose, criteria for alternative selection and project alternatives to be evaluated in the Draft EIS will be greatly appreciated.

The MOU states that concurrence or non-concurrence must be a written determination that either the information to date is adequate for this stage and the project may proceed to the next stage without modification, that the information to date is not adequate for this stage, or that the potential adverse impacts of the project are severe.

We ask for your attention to this matter to expedite the concurrence process. In order to facilitate your review, Ms. Faith Miyamoto of the Transportation Planning Division will be contacting you to schedule a meeting where we can discuss your input and review.

Should you have any questions regarding this matter, please contact Kenneth Hamayasu at (808) 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosures

cc: Mr. Leslie Rogers, Federal Transit Administration (without enclosures)

AR00016371

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

JUN 12 2000

In Reply Refer To: OCS

Cheryl Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Blvd. Suite 1200
Honolulu HI 96813

Re: Primary Corridor Transportation Project

Dear Ms. Soon:

The U.S. Fish and Wildlife Service (Service) has reviewed the portions of the Draft Environmental Impact Statement (DEIS) sent to us for early participation in the environmental review process of the Primary Corridor Transportation Project. The project sponsors are the Federal Transit Administration and the City and County of Honolulu. A variety of transportation improvements are proposed that would result in a one kilometer long tunnel under the Fort Armstrong Channel of Honolulu Harbor and replacement of the existing Kalihi Channel Bridge with either an enlarged new bridge or a tunnel under the Kalihi Channel.

The Service is a signatory agency to the 1995 Memorandum of Understanding (MOU) that integrates the environmental review process of the National Environmental Policy Act (NEPA) and the Clean Water Act (CWA) section 404 for transportation projects in the State of Hawaii. This MOU provides structured coordination for resources agencies, including the Service, to participate in the project development and review process when aquatic resource impacts may be substantial. The MOU also requires that the Service provide written concurrence or non-concurrence on: NEPA-defined purpose and need, CWA section 404 basic and overall project purpose, criteria for alternative selection, project alternatives to be considered in the draft EIS, and the preferred alternative.

The Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP) alternative, which includes a tunnel under the entrance to Honolulu Harbor, will substantially impact aquatic resources; especially during the construction phase of the project. These impacts will require careful review by the Service as specific construction plans are developed, and in coordination with other federal environmental review agencies, such as the National Marine Fisheries Service, U.S.

Environmental Protection Agency, and the U.S. Army Corps of Engineers. Based upon the documents we have reviewed, the Service concurs that the information presented to us is adequate in describing NEPA project purpose and need, CWA section 404 basic and overall purpose, criteria for alternative selection, criteria to be considered in the DEIS, and the preferred alternative.

As described in the MOU, participation by the Service in the coordinated environmental review of this transportation project does not imply endorsement of all aspects of the plan. The Service will work with all federal and state agencies involved to place a high priority on the avoidance of adverse impacts to waters of the US, coral reef ecosystems, associated sensitive species, and threatened and endangered species.

The Service appreciates the opportunity to provide comments on the proposed project. If you have questions regarding these comments, please contact Fish and Wildlife Biologist Gordon Smith at 808/541-3441.

Sincerely,

for Paul Henson
Field Supervisor
Ecological Services

CC: NMFS-PAIO
USEPA, Honolulu
DLNR-DAR, Honolulu
DOH-CWB, Honolulu
DBEDT-CZM, Honolulu
FTA, San Francisco

AR00016372

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE: (808) 523-4529 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

July 19, 2000

TPD 00-00367

Mr. Paul Henson, Field Supervisor
Ecological Services
Pacific Islands Ecoregion
Fish and Wildlife Service
U.S. Department of the Interior
Box 50088
Honolulu, Hawaii 96850

Attention: Mr. Gordon Smith

Dear Mr. Henson:

Subject: Primary Corridor Transportation Project

In May of this year, your assistance and formal participation was requested in the project development process for the Primary Corridor Transportation Project. This was done pursuant to the "Memorandum of Understanding (MOU), National Environmental Policy Act and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii". The Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP) Alternative, which included a tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing, was the trigger for the MOU coordination. As the agency review of the project progressed, concerns were expressed regarding SISP's role. Therefore, this letter is to inform you that the SISP portion of the subject project will not be pursued at this time. The BRT/SISP Alternative will be deleted from consideration in the Major Investment Study/Draft Environmental Impact Statement that is being prepared.

We thank you for the time and effort expended to review the project documents in a timely manner. Although the decision to defer SISP will annul the MOU process, we will continue to keep you informed about the subject project.

Should you have any questions concerning this matter, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Ms. Donna Turchie
Federal Transit Administration – Region IX

AR00016373

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4525 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD00-00239

May 4, 2000

Mr. David J. Farrel, Chief (CMD-2)
Federal Activities Office
Region IX
U. S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105

Dear Mr. Farrel:

Subject: Primary Corridor Transportation Project

We are writing to request your assistance and formal participation in an important transportation project in the City and County of Honolulu known as the Primary Corridor Transportation Project. We understand that the "Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii" (copy enclosed), looks towards consultation in the project development process. Initial discussions regarding this project have taken place with Dr. Wendy Wiltse of your Honolulu office.

The Federal Transit Administration and the City and County of Honolulu are currently preparing a NEPA environmental impact statement (EIS) for the subject project. Transportation improvements are being proposed for the primary transportation corridor, which stretches from Kapolei to Kahala. One of the alternatives being considered (Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP)) includes an approximately one kilometer (0.6 mile) tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing. These actions would require an individual permit from the U.S. Army Corps of Engineers. The NEPA EIS that is being prepared for the subject project proposes increasing bridge capacity across Kalihi Channel. However, the preferred option is a tunnel to replace the Kalihi Channel Bridge, as recommended in the State of Hawaii's long-range harbor master plan. Initial studies of this tunnel are currently being conducted and its impacts will be documented in a separate environmental document by the State of Hawaii Department of Transportation.

As set forth in the MOU, the involvement of the signatory agencies would be limited to issues pertaining to waters of the United States, including wetlands, and associated sensitive species, including threatened and endangered species, regarding the BRT/SISP Alternative. Although the SISP component would not have any long-term impacts, construction related impacts are

anticipated. The impacts to water quality from the dredging of the Fort Armstrong Channel would be similar in many respects to the water quality impacts of normal maintenance dredging in Honolulu Harbor. Widening of the existing Kalihi Channel Bridge and construction of a new bridge would require pile driving and demolition, which may result in increased turbidity. The impacts of the proposed construction in the Fort Armstrong and Kalihi Channels would be mostly indirect and limited to those associated with increased suspended solids and turbidity loads. The project should not impact any sensitive species.

Enclosed are copies of the following components of the Draft EIS that is being prepared:

Chapter 1 Purpose and Need
Chapter 2 Alternatives Considered
Appendix B Conceptual Design Drawings, Bus Rapid Transit
Appendix C Conceptual Design Drawings, Sand Island Scenic Parkway and Marina Road
Appendix D Screening of Alternatives

Your expeditious review of these documents and concurrence on the NEPA purpose and need, Section 404 basic and overall project purpose, criteria for alternative selection and project alternatives to be evaluated in the Draft EIS will be greatly appreciated.

The MOU states that concurrence or non-concurrence must be a written determination that either the information to date is adequate for this stage and the project may proceed to the next stage without modification, that the information to date is not adequate for this stage, or that the potential adverse impacts of the project are severe.

We ask for your attention to this matter to expedite the concurrence process. In order to facilitate your review, Ms. Faith Miyamoto of the Transportation Planning Division will be contacting you to schedule a meeting where we can discuss your input and review.

Should you have any questions regarding this matter, please contact Kenneth Hamayasu at (808) 527-6978.

Sincerely,

CHERYL D. SOON
Director

Enclosures

cc: Mr. Leslie Rogers, Federal Transit Administration (without enclosures)
Dr. Wendy Wiltse, U. S. Environmental Protection Agency (with enclosures)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

June 14, 2000

Cheryl Soon, Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

The Environmental Protection Agency (EPA) has reviewed the City and County of Honolulu's Purpose & Need statement, Range of Alternatives, and associated materials for the **Primary Corridor Transportation Project**. Our review is pursuant to the Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii. Wendy Wiltse of our Honolulu office has also participated in this review.

Chapter 1: Purpose & Need and *Chapter 2: Alternatives Considered* do an excellent job of explaining the extensive public participation process that has contributed to this project. In addition, we are particularly pleased with the goals of the *Islandwide Mobility Concept Plan*, which focuses on improved transit, strengthened connections between communities, and fostering livable communities. It appears that this project will provide significant long-term benefits to both the residents of and visitors to Oahu.

While we support the purpose and need of this project in concept, we have significant concerns about the details of both the Purpose & Need statement and the Range of Alternatives. For this reason, the intent of this letter is to state our **non-concurrence** on both the Purpose & Need statement and the Range of Alternatives. We would be pleased to work with you to resolve these issues. Our concerns and recommendations are stated below:

Purpose & Need Statement #5: "Improve access to Sand Island and to the Koko Head end of the PUC, including Waikiki." This statement is very broad and includes five "sub-objectives": 1) improve access to Sand Island to increase the efficiency of the movement of goods, 2) open up the use of Sand Island's recreational resources, 3) rejuvenate the urban waterfront of Sand Island, 4) improve the entryway and access to and from Waikiki along a scenic coastal route, and 5) provide a Downtown bypass for those travelers who travel between Keehi Interchange and Kakaako/Waikiki.

We have two main concerns. First, this Purpose & Need statement is far too broad, and second, only the Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP) Alternative fully meets the five "sub-objectives" laid out in the Purpose & Need statement #5. Neither of the other alternatives fully meet the purposes of Purpose & Need statement #5. The Transportation System Management (TSM) Alternative does not address any of the issues laid out in Purpose & Need statement #5, and the Bus Rapid Transit (BRT) Alternative only partially fulfills the "sub-objectives" laid out in Purpose & Need statement #5.

Recommendation: Re-draft a more concise Purpose & Need statement #5 that focuses on supportable community needs, which are clearly laid out in the "Need" section of the Purpose & Need statement.

Range of Alternatives: The BRT/SISP Alternative is the only alternative that currently meets all of the Purpose & Need statements. Our concern is that the range of alternatives is much too narrow. In addition, the BRT/SISP Alternative includes a major highway component, which could have significant environmental impacts as a result of creek crossings, proximity to fragile, coastal ecosystems, road runoff, beach erosion, etc.

Recommendation: Once the Purpose & Need statement is re-drafted, re-visit each alternative to ensure that they all meet Purpose & Need. In addition, any significant highway component under consideration should analyze the potential environmental impacts, and an appropriate number of alternatives should be developed accordingly.

Bus Priority/Express Improvements: The TSM Alternative, BRT Alternative, and BRT/SISP Alternative all call for bus priority/express improvements. Our concern is that these improvements may impact curbside parking.

Recommendation: Address the impacts to parking, including a demonstration of how the park and ride stations will accommodate both lost curbside parking spaces, as well as increased park and ride demand.

Transit Technology for the In-Town BRT System: Embedded plate technology is being considered for the In-Town BRT system. Our concern is for the environmental consequences of the additional electricity demanded by this system.

Recommendation: Describe the source of electricity for the embedded plate technology system, and discuss any environmental impacts that may be associated with the generation of the additional electricity needed to operate the embedded plate system.

BRT/SISP Induced Demand: The BRT/SISP Alternative will increase road capacity relative to the BRT Alternative, reducing the level of BRT service needed. Our concern is that the BRT/SISP Alternative will result in more cars entering Kakaako at Ala Moana and South Street, as well as Waikiki.

Recommendation: Analyze the ability of Ala Moana Blvd. to handle increased traffic between South Street and Waikiki, especially with the BRT in operation.

BRT/SISP Lane Numbers & Traffic Flow: The BRT/SISP Alternative calls for a four lane tunnel under the Fort Armstrong Channel and an eight lane bridge over the Kalihi Channel. Hawaii Department of Transportation (HDOT) and the Corps of Engineers (COE) are currently working on initial studies of the development of a tunnel under Kalihi Channel. Our concern is that the BRT/SISP Alternative does not specify the number of lanes contemplated by HDOT and COE for the Kalihi tunnel.

Recommendation: Clarify the number of lanes planned by HDOT and COE for the Kalihi tunnel to demonstrate the compatibility of the BRT/SISP Alternative and the HDOT/COE Kalihi tunnel project.

Thank you for this opportunity to comment. Again, we are happy to work with you to modify the Purpose & Need statement and Range of Alternatives so that EPA can concur on this stage of the project. Please have your staff contact Nova Blazej, our principal reviewer on this project, should you have any questions concerning our comments or recommendations. Nova can be reached at 415-744-2089 or *blazej.nova@epa.gov*.

Sincerely,

Dave Farrel, Chief
Federal Activities Office

cc: Leslie Rogers, FTA
Donna Turchie, FTA
Laura Kong, FHWA

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 17, 2000

TPD6/00-02880R

Mr. Dave Farrel, Chief
Federal Activities Office
Region IX
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105-3901

Dear Mr. Farrel:

Subject: Primary Corridor Transportation Project

Thank you for your June 14, 2000 letter that provided comments on the Purpose and Need statement, Range of Alternatives, and associated materials for the subject project. This was done pursuant to the "Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii." The Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP) Alternative, which included a tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing, was the trigger for the MOU coordination. As the agency review of and consultation on the project progressed, it was agreed that the Sand Island Scenic Parkway would best be reviewed in the context of the Oahu Regional Transportation Plan. Therefore, this letter is to inform you that the discussion of Sand Island Scenic Parkway will continue in that arena and that it will be separated from the Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

The time and effort expended to review the project documents in a timely manner are greatly appreciated. In order to bring closure to the MOU process, the following responses to your comments are provided:

Purpose and Need Statement #5 - As a result of the decision to separate Sand Island Scenic Parkway from the MIS/DEIS for the subject project, this statement has been eliminated.

Range of Alternatives - The BRT/SISP Alternative is no longer being considered in the MIS/DEIS. Chapter 2 of the MIS/DEIS includes a description of the alternatives evaluated and a discussion of the alternatives that were considered and eliminated.

Bus Priority/Express Improvements - The parking impacts are discussed in Section 4.3 of the MIS/DEIS.

Transit Technology for the In-Town BRT System - The additional electricity demanded by the embedded plate technology is discussed in Section 5.9 of the MIS/DEIS.

BRT/SISP Induced Demand - The BRT/SISP Alternative is no longer being considered in the MIS/DEIS.

BRT/SISP Lane Numbers and Traffic Flow - The BRT/SISP Alternative is no longer being considered in the MIS/DEIS.

A copy of the MIS/DEIS will be transmitted for your review.

Should you have any questions regarding this matter, please contact Kenneth Hamayasu at (808) 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Wendy Wiltse
Environmental Protection Agency - Honolulu

Donna Turchie
Fedral Transit Administration - Region IX

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD00-00244

May 4, 2000

Mr. Kazu Hayashida, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

Subject: Primary Corridor Transportation Project

We are writing to request your assistance and formal participation in an important transportation project in the City and County of Honolulu known as the Primary Corridor Transportation Project. We understand that the "Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii" (copy enclosed), looks towards consultation in the project development process.

The Federal Transit Administration and the City and County of Honolulu are currently preparing a NEPA environmental impact statement (EIS) for the subject project. Transportation improvements are being proposed for the primary transportation corridor, which stretches from Kapolei to Kahala. One of the alternatives being considered (Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP)) includes an approximately one kilometer (0.6 mile) tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing. These actions would require an individual permit from the U.S. Army Corps of Engineers. The NEPA EIS that is being prepared for the subject project proposes increasing bridge capacity across Kalihi Channel. However, the preferred option is a tunnel to replace the Kalihi Channel Bridge, as recommended in the State of Hawaii's long-range harbor master plan. Initial studies of this tunnel are currently being conducted and its impacts will be documented in a separate environmental document by the State of Hawaii Department of Transportation.

As set forth in the MOU, the involvement of the signatory agencies would be limited to issues pertaining to waters of the United States, including wetlands, and associated sensitive species, including threatened and endangered species, regarding the BRT/SISP Alternative. Although the

SISP component would not have any long-term impacts, construction related impacts are anticipated. The impacts to water quality from the dredging of the Fort Armstrong Channel would be similar in many respects to the water quality impacts of normal maintenance dredging in Honolulu Harbor. Widening of the existing Kalihi Channel Bridge and construction of a new bridge would require pile driving and demolition, which may result in increased turbidity. The impacts of the proposed construction in the Fort Armstrong and Kalihi Channels would be mostly indirect and limited to those associated with increased suspended solids and turbidity loads. The project should not impact any sensitive species.

Enclosed are copies of the following components of the Draft EIS that is being prepared:

Chapter 1 Purpose and Need
Chapter 2 Alternatives Considered
Appendix B Conceptual Design Drawings, Bus Rapid Transit
Appendix C Conceptual Design Drawings, Sand Island Scenic Parkway and Marina Road
Appendix D Screening of Alternatives

Your expeditious review of these documents and concurrence on the NEPA purpose and need, Section 404 basic and overall project purpose, criteria for alternative selection and project alternatives to be evaluated in the Draft EIS will be greatly appreciated.

The MOU states that concurrence or non-concurrence must be a written determination that either the information to date is adequate for this stage and the project may proceed to the next stage without modification, that the information to date is not adequate for this stage, or that the potential adverse impacts of the project are severe.

We ask for your attention to this matter to expedite the concurrence process. In order to facilitate your review, Ms. Faith Miyamoto of the Transportation Planning Division will be contacting you to schedule a meeting where we can discuss your input and review.

Should you have any questions regarding this matter, please contact Kenneth Hamayasu at (808) 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosures

cc: Mr. Leslie Rogers, Federal Transit Administration (without enclosures)

AR00016378

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

LEADING HAWAII INTO THE NEW MILLENNIUM
1959 2000+

June 22, 2000

IN REPLY REFER TO:
STP 8.9581

Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza, Suite 1200
711 Kapiolani Boulevard
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project

Thank you for your letter of May 4, 2000, requesting our participation as a consulting agency under the "Memorandum of Understanding (MOU). National Environmental Policy Act (NEPA) and Clean Water Act Section 404 Integration Process for Surface Transportation Projects in the State of Hawaii."

We are pleased with the City's initiative in developing an islandwide mobility concept. However, we cannot concur at this stage because we believe that there are other transportation alternatives and needs which should be considered.

Some of our specific concerns include:

1. Purpose No. 5, regarding improved access to Sand Island is inconsistent with the other purposes as it relates to the performance of the proposed alternatives. Only one alternative, the BRT/SISP, seems to fully satisfy this purpose; and thus, the project presentations are biased toward that alternative.

2. We have serious concerns with the BRT/SISP alternative. These would include the right-of-way requirements and its impact on the planned surface facilities for our harbor operations; potential conflicts of the landside access to Fort Armstrong with our passenger and cargo movements in the Pier 1 and 2 areas; and the loss of lands and the loss of best use revenues which could be generated through the development of these lands (e.g., KIPA, Kapalama storage areas, Keehi Industrial Lots project).

3. The goals and objectives of our 2020 Commercial Harbor Plan, which addresses the efficient movement of goods and freight in the area, should be recognized. Aside from accommodating the stakeholders' needs, the harbor plans address safety concerns, and call for the separation of cargo and cruise ship movements. We do not want to compromise our harbor requirements.

4. There would be a significant impact of the Project's funding requirements on the rest of the transportation program. Also, it would appear that the requirements are understated in that it assumes certain improvements to be part of the state's program. HDOT has not committed to implement or fund any proposal or component at this time.

5. The impact of the reduction of lanes on Nimitz Highway/Ala Moana Boulevard, and the reduced capacity on other highway facilities have not been adequately addressed.

6. The purpose is too narrow, pre-empting the consideration of even those roadway improvements which have been identified in the Oahu Regional Transportation Plan (e.g., Nimitz Viaduct project).

We strongly recommend that joint meetings with all affected agencies be held to facilitate coordination. We are aware that there have been briefings held on the various components of the project, but an overview of all the impacts and concerns related to the entire project would be most helpful. We look forward to working with you to resolve these issues so that we can concur on this stage of the project.

Very truly yours,

Kazu Hayashida

KAZU HAYASHIDA
Director of Transportation

c: Hon. Calvin K. Kawamoto
Hon. Kenneth T. Hiraki
Hon. Sam Callejo, Office of the Governor
Mr. Abraham Wong, Federal Highway Administration
Mr. Leslie T. Rogers, Federal Transit Administration
Mr. Gordon G. W. Lum, Oahu Metropolitan Planning Organization

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 17, 2000

TPD6/00-03050R

Mr. Kazu Hayashida
Director of Transportation
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Hayashida:

Subject: Primary Corridor Transportation Project

Thank you for your June 22, 2000 letter regarding participation during the project development process under the "Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) and Clean Water Act Section 404, Integration Process for Surface Transportation Projects in the State of Hawaii." The Bus Rapid Transit/Sand Island Scenic Parkway (BRT/SISP) Alternative, which included a tunnel under the Fort Armstrong Channel of Honolulu Harbor and improvements to the Kalihi Channel crossing, was the trigger for the MOU coordination. As the agency review of and consultation on the project progressed, it was agreed that the Sand Island Scenic Parkway would best be reviewed in the context of the Oahu Regional Transportation Plan. Therefore, this letter is to inform you that the discussion of Sand Island Scenic Parkway will continue in that arena and that it will be separated from the Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS).

The time and effort expended to review the project documents are greatly appreciated. Close coordination will continue to ensure that the comments and concerns that were not addressed by the elimination of the BRT/SISP Alternative are resolved.

Should you have any questions regarding this matter, please contact Kenneth Hamayasu at 527-6978.

Sincerely,

CHERYL D. SOON
Director

cc: Ms. Donna Turchie
Federal Transit Administration - Region IX

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

15

November 10, 1999

TPD99-00647

Mr. Edwin Hayashi, Stadium Manager
Aloha Stadium
State of Hawaii
P. O. Box 30666
Honolulu, Hawaii 96820

Dear Mr. Hayashi:

Subject: Primary Corridor Transportation Project

The Federal Transit Administration and the City and County of Honolulu are currently preparing an Environmental Impact Statement (EIS) for the subject project.

The purpose of this letter is to initiate Section 4(f) coordination regarding the potential use of the Aloha Stadium parking lot by the subject project. We would like to meet with you to discuss our preliminary plans and issues of concern to your agency.

Ms. Faith Miyamoto of the Transportation Planning Division will be contacting you to schedule a convenient time for this meeting. We look forward to working together on this project.

Sincerely,

CHERYL D. SOON
Director

cc: Mr. Robert Hom, Federal Transit Administration, Region IX

AR00016380

BENJAMIN J. CAYETANO
Governor

ALOHA STADIUM
An Agency of the State of Hawaii

EDWIN K. HAYASHI
Stadium Manager

MILTON HIROHATA
Deputy Manager

August 21, 2000

Ms. Cheryl D. Soon, Director
Department of Transportation Services
CITY AND COUNTY OF HONOLULU
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project

We have reviewed the updated information on the proposed transit facilities at Aloha Stadium provided in the Major Investment Study/Draft Environmental Impact Statement for the Primary Corridor Transportation Project, and concur with the assessment of the impact of the proposed facilities as stated in the document.

Continued coordination will be imperative to ensuring that both our goals are realized. We look forward to working together with you.

Sincerely,

Edwin K. Hayashi
Stadium Manager

EKH:dh

P.O. Box 30666 • Honolulu, Hawaii 96820-0666 • Tel: 808.486.9555 • Fax 808.486.9520

AR00016381

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

TPD00-00397

August 21, 2000

Mr. Gary Munsterman
Western Region
National Park Service
U. S. Department of Interior
600 Harrison Street, Suite 600
San Francisco, California 94107-1372

Dear Mr. Munsterman:

Subject: Primary Corridor Transportation Project

In its May 25, 2000 letter, the Federal Transit Administration (FTA) initiated coordination with the National Park Service regarding the subject project. The focus of the letter was the possible project impact on Sand Island State Recreation Area, a Section 6(f) property. Sand Island State Recreation Area would be impacted only if the Bus Rapid Transit/Sand Island Scenic Parkway Alternative is implemented. Subsequent to lhe May 25, 2000 FTA letter, continued agency review of and consultation on the project progressed, resulting in agreement that Sand Island Scenic Parkway would best be reviewed in the context of the Oahu Regional Transportation Plan. Therefore, this letter is to inform you that the discussion of Sand Island Scenic Parkway will continue in that arena and that it will be separated from the Primary Corridor Transportation Project Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). This action will eliminate the need to discuss the project impact on Sand Island State Recreation Area.

The only other Section 6(f) property that would be affected by the subject project is Aloha Stadium. Both of the build alternatives evaluated in the MIS/DEIS include a park-and-ride lot at the site of the overflow parking lot. Presently, the existing overflow parking lot has space for about 1,000 cars. It is estimated that up to 500 spaces would be needed to service existing and potential transit patrons in the Pearl City to Foster Village region. The improved transit service that would be provided by both build alternatives would, in turn, improve transit access to the Stadium.

In terms of the possible impact of the proposed park-and-ride facility, the Aloha Stadium overflow parking lot would function both as a park-and-ride lot for the proposed transit system and as an overflow lot for Stadium activities. Because the times of use would be different for transit commuters and stadium patrons, both of these uses could be accommodated with little overlap. Continued coordination will be necessary to ensure that parking in the lot is available to Stadium patrons on those occasions when the Stadium activities overlap with the park-and-ride hours.

The Aloha Stadium property, which is a portion of the former Halawa/Aiea Veterans Housing Area, G.S.A. No. N-Haw-495A, was originally owned by the Department of the Interior and was transferred to the City and County of Honolulu with a reversionary clause that in the event of any breach of certain use conditions or covenants stated in the Quitclaim Deed dated June 30, 1967, the property would revert to the United States. Subsequently and with the approval of the Department of the Interior, the property was transferred on October 27, 1970 to the State of Hawaii with similar use provisions.

We are, therefore, requesting your concurrence that the use being proposed is consistent with the provision under which this property was acquired from the Federal government. Previously, by letter dated July 15, 1992, the National Park Service found that a similar proposed use (transit station, aerial guideway structure and park-and-ride facility) at the same location would be compatible with the terms of the transfer. We are hoping for a favorable response to the current request. Your immediate attention to this matter would be greatly appreciated.

Should you have any questions regarding this matter, please contact Kenneth Hamayasu at (808) 527-6978.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

cc: Mr. Edwin Hayashi, Stadium Manager
Aloha Stadium

Ms. Donna Turchie
Federal Transit Administration, Region IX

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4525 • FAX: (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH H. MAGALDI, JR.
DEPUTY DIRECTOR

TPD99-00563

September 28, 1999

Mr. Dean Y. Uchida, Administrator
Land Division
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Uchida:

Subject: Primary Corridor Transportation Project

As part of the subject project, the City and County of Honolulu Department of Transportation Services is studying the possibility of constructing a downtown bypass road on Sand Island, which would include a tunnel beneath the Fort Armstrong Entrance Channel to Honolulu Harbor. Members of your staff have attended meetings at which preliminary plans were presented. At one meeting, it was suggested that a boundary interpretation be requested to determine the potential involvement of conservation lands.

Enclosed is a map showing the proposed bypass road and tunnel. Although the precise roadway alignment has not yet been selected, all of the options include a tunnel beneath the Fort Armstrong Channel. Most of the options also involve an easement or other conveyance along the portion of the alignment that would extend through Sand Island State Recreation Area, with restoration of the park after completion of tunnel construction.

We therefore formally request a determination of the possible involvement of the project with conservation lands, and the need for a Conservation District Use Application.

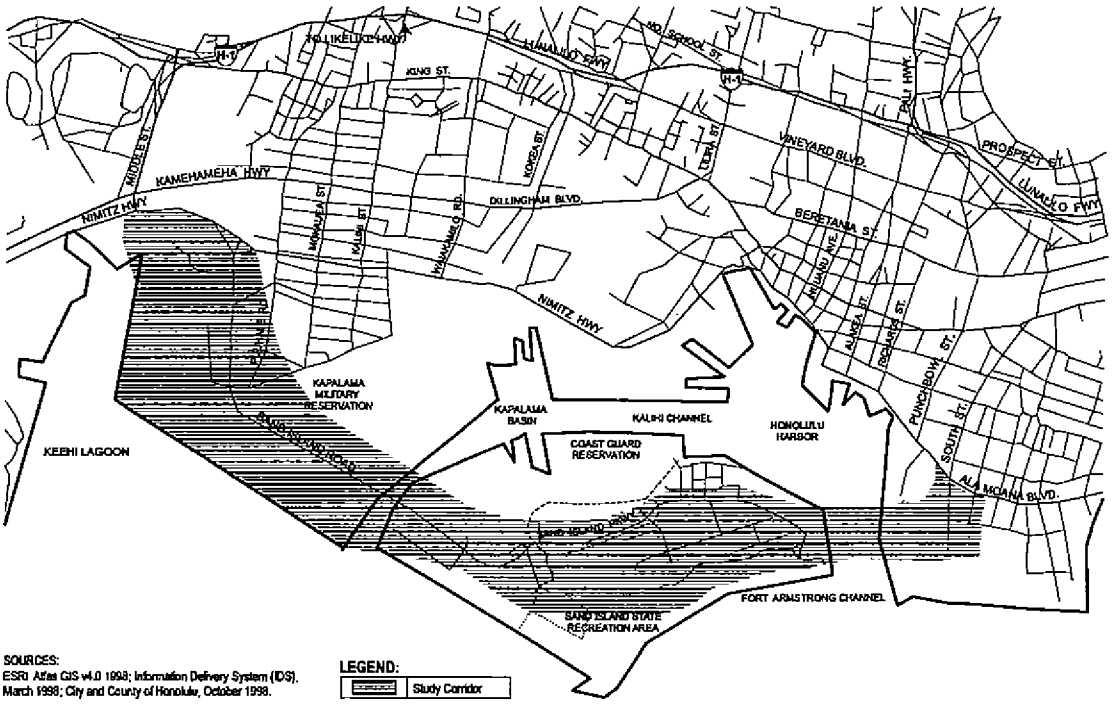
Please call Faith Miyamoto of the Transportation Planning Division at 527-6976 with any questions. We look forward to working together on this project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Enclosure



Sand Island Bypass — **Figure 1**

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

OCT 19 1999

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

Ref.: PB: SL

The Honorable Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza
711 Kapiolani Blvd., Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project

Thank you for your September 28, 1999 letter regarding the need for a Conservation District Use Application. It is our understanding that the proposed bypass road would extend under the Fort Armstrong Channel. Construction methods would involve excavation of the seabed and placement of reinforced concrete tunnel segments followed by backfilling. Since this project would cause substantial disturbance of the seabed, it meets the definition of land use under Title 13-5, Hawaii Administrative Rules. Therefore, a Conservation District Use Application would be required.

Please feel free to call Sam Lemmo of the Planning Branch at 587-0381, should you have any questions on this matter.

Aloha,

Dean Y. Uchida, Administrator
Land Division

cc: Chairperson's Office
Oahu Board Member

AR00016385

Appendix A

Exhibit A-4

EXHIBIT A-4. AGENCY COORDINATION UP TO SDEIS

This exhibit contains a record of agency correspondence and consultation regarding the Refined BRT Alternative. A summary of the correspondence and consultation activities is provided below. Copies of these documents are also provided in this exhibit.

SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Minutes of the September 13, 2001 meeting with the State Historic Preservation Division regarding the SDEIS, archaeology, and historic properties

Minutes of January 22, 2002 meeting with the State Historic Preservation Division regarding the archaeological survey

SAFE DRINKING WATER ACT

February 25, 2002 letter from DTS to U.S. Environmental Protection Agency requesting Section 1424(e) review of the Ground Water Impact Assessment for the Southern Oahu Basal Aquifer (SOBA) Sole Source Aquifer.

OTHER CORRESPONDENCE

Minutes of April 26, 2001 meeting with State of Hawaii Office of Hawaiian Affairs and Office of Environmental Quality Control regarding compliance with Act 50

August 2, 2001 meeting with State of Hawaii Office of Environmental Quality Control regarding the SDEISPN preparation. No minutes were prepared for this meeting.

Minutes of August 22, 2001 meeting with the Hawaii Department of Transportation regarding the Middle Street Transit Center ramp

Minutes of October 1, 2001 meeting with the U.S. Navy regarding the Luapele Drive ramp

Minutes of October 10, 2001 meeting with the Hawaii Department of Transportation regarding Middle Street ramp

Minutes of October 12, 2001 meeting with the U.S. Navy regarding the project, with emphasis on the Luapele Drive ramp access and impact of the Kamehameha Highway contra-flow lane on the Ford Island access

October 24, 2001 Hawaii Department of Transportation letter responding to the SDEISPN

November 6, 2001 U.S. Fish and Wildlife Service letter responding to the SDEIS NOI

Minutes of February 11, 2002 meeting with State of Hawaii Office of Environmental Quality Control regarding the SDEIS/FEIS process issues related to appendices and responses to comments

March 16, 2001 Hawaii Department of Transportation memo to the OMPO Policy Committee regarding the Oahu Regional Transportation Plan

PRIMARY CORRIDOR TRANSPORTATION PROJECT
STATE HISTORIC PRESERVATION DIVISION (SHPD) MEETING
THURSDAY, SEPTEMBER 13, 2001
9:00 A.M.
SHPD CONFERENCE ROOM

Attendees: Elaine "Muffet" Jourdane, SHPD Archaeologist
Sara L. Collins, SHPD Archaeologist
Tonia Moy, SHPD
Faith Miyamoto, Department of Transportation Services
Ann Koby, Parsons Brinckerhoff

Purpose: Discuss the potential bus rapid transit (BRT) archaeological component.

Summary: Faith Miyamoto gave a brief overview of the BRT project and the project refinements since the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) was published and the SHPD reviewed the MIS/DEIS and submitted comments. The project refinements are:

- Kamehameha Drive-In is no longer being considered as a transit center site. The Aloha Stadium/Luapele Ramp has replaced the ramp from the Kamehameha Drive-In site (Kaonohi ramp).
- The BRT alignment will now use Pensacola Street instead of Ward Avenue between S. King Street and Kapiolani Blvd.
- A new BRT alignment is being included. It is the Kakaako makai alignment operating from the Iwilei Transit Center on Iwilei Road, continuing on S. King Street, Hotel Street Transit Mall, Bishop Street, Richards Street, Aloha Tower Drive, Ala Moana Boulevard, Channel Street, Illalo Street, and Ward Avenue before connecting with the Waikiki alignment.

Ms. Miyamoto passed out the Regional and In-Town BRT alignment maps, including the Kakaako makai alignment map.

The SHPD personnel advised the following:

1. The potential underground sites should be "scoped out." The "old shoreline" should be used as a guideline as to where potential archaeological sites may occur. Typically, archaeological sites are more prevalent in the vicinity of fishponds and the late 19th Century Oahu coastline.
2. The area makai of Ala Moana Blvd. is typically a "high sensitivity area" where archaeological sites are encountered.
3. If fishponds are involved, core samples will need to be taken.

4. Recommend a two-step archaeological process: (a) collect data using secondary sources and field review (b) once this data is compiled, then the SHPD should be contacted regarding the next appropriate action.
5. A burial treatment plan will be required.
6. If the project is in a "high" sensitivity area in Waikiki, then the family group with ancestors buried in the area will need to be contacted. Michelle Bradley or –Van Diamond, SHPD, can set-up the meeting.
7. If the lava rock curbs are disturbed, then will need to be replaced.
8. If the project is taking land from Fort DeRussy, it is a "double" Section 106 because NAGPRA is invoked.
9. Recommend not widening on the makai side of Kalia Road in the Hale Koa vicinity because 40 graves were exhumed in this area and they had to be reinterred.
10. It is believed that the Ala Moana Regional Park wall was constructed in the 1930's.

The SHPD staff loaned Parsons Brinckerhoff a map of Oahu's sensitive archaeological areas to have reproduced and returned. They also gave Faith Miyamoto and Ann Koby a list of potential archaeological survey contractors.

The SHPD staff agreed to review the archaeological scope of work prior to it being sent to potential archaeological survey contractors.

AR00016388

PRIMARY CORRIDOR TRANSPORTATION PROJECT
State Historic Preservation Division (SHPD) Meeting
Tuesday, January 22, 2002

Attendees: Elaine "Muffet" Jourdane, SHPD Archaeologist
Sara L. Collins, SHPD Archaeologist
Faith Miyamoto, Department of Transportation Services (DTS)
Ann Koby, Parsons Brinckerhoff
Bob Spear, SCS
Bert Davis, SCS
Leann McGerty, SCS

Purpose: Discuss the PRIMCOR archaeological survey progress, report format, and SHPD guidance on interviews.

Summary: Bert Davis gave a brief review of what SCS has accomplished to date regarding the archaeological survey. The SHPD personnel were advised of the following:

- The Kapolei project components will not result in any archaeological effects.
- There appears to be nothing significant at the Aloha Stadium, but need to review the fire maps. The area was naval housing closer to the stadium, but there is a fishpond plus Halawa Stream in the vicinity.
- The Middle Street area contained over two dozen fishponds and a leprosarium. There are several named historic house sites in the area.
- Iwilei area appears to be fill over the Kuwili fishpond.
- The Waikiki area is of primary concern because project involves widening along Kalia Road, where archaeological resources are known to exist.

SHPD personnel responded positively to the above discussion and the report format, which Bert shared with them.

Leann McGerty requested guidance regarding who the SHPD personnel would like interviewed in conjunction with the archaeological survey. It was noted that extensive interviews were conducted as part of the Act 50 analysis. The SHPD felt that those interviews would probably be sufficient, but felt that the project team should coordinate with the Burial Council and possibly the Waikiki families.

The SHPD personnel also advised that they were not the entity responsible for Act 50 compliance. The OEQC was responsible.

The SHPD would review and comment on the Act 50 report, but only if requested to do so in writing. Also, it would not be a priority to complete such a request, since Act 50 compliance is not in their purview.

The SHPD reminded the project team that consultation should occur with the Office of Hawaiian Affairs and Hui Malama I Na Kupuna O Hawaii Nei. It was also suggested that the Historic Hawaii Foundation be consulted.

AR00016389

April 27, 2001

To: Pua Aiu, Office of Hawaiian Affairs
Wayne Kawamura, Office of Hawaiian Affairs
Nancy Heinrich, Office of Environmental Quality Control

Re: Act 50 and the Primary Corridor Transportation Project (PRIMCOR)

Mahalo for taking the time yesterday to consult with Faith Miyamoto (City Department of Transportation Services), Ann Koby (PB Consulting) and me on the proposed process to implement a cultural practices assessment for PRIMCOR.

As discussed, we plan to proceed in a three-step process. First, a panel of experts/scholars will be convened to develop a working definition of "cultural practice", and develop criteria that will establish the affected "study area". Second, individuals knowledgeable about cultural practices within geographic areas, ethnicities, and/or cultural categories will be brought together to talk story and describe cultural practices in the study area. Third, practices potentially "adversely affected" would be identified and measures developed to lessen any adverse impacts.

On OHA's part, you emphasized areas that may be built out, such as substations, access ramps, and street widening. OHA is particularly concerned about potentially sensitive areas that may contain burials, mentioning Waikiki, Pearl Harbor, and the Kakaako area near Queen Street and Pohukaina Street.

In our discussion of what might constitute a cultural practice, Nancy suggested that the emphasis be placed on traditional cultural practices that arise from traditional cultures; i.e., the anthropological view rather than the sociological view. While we understand that the legal definition in Act 50 is not conclusive, we appreciate this guidance in proceeding with this assessment.

Nancy requested that an effort be made to include small cultural groups that may not be as outspoken about the protection of their practices; Laotians and Vietnamese, for example. OHA emphasized the need to be as broad-based as possible in our consultation.

Are there are any other issues that you would like us to be aware of as we begin this process? In particular, please let us know as soon as possible if there are any people and/or groups that we should consider in comprising the panel of experts, as well as people that would be good resources on the cultural practices along the urban corridor.

We will, of course, keep you advised as we proceed. Mahalo again for your time and consideration.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
HAWAII DEPARTMENT OF TRANSPORTATION (HDOT) MEETING
WEDNESDAY, AUGUST 22, 2001
1:30 P.M.
HDOT 5TH FLOOR CONFERENCE ROOM

Attendees: Brian Minaai, HDOT
Toru Hamayasu, Department of Transportation Services (DTS)
Norman Kawachika, DTS
Bob Bramen, PB Consult
Clyde Shimizu, PBQD
Greg Hiyakumoto, RM Towill
Warren Sato, SSFM

Purpose: Discuss ramp to the Middle Street Transit Center

Summary: HDOT expressed the following concerns:

- Ramp exiting on left-hand side
- Did not like freeway ramp going directly into a facility
- Poor soil conditions in area of proposed ramp
- Potential queuing back onto ramp if robotic parking facility cannot process arriving autos quickly enough
- Middle Street driveways for buses and autos too close to one another

PRIMARY CORRIDOR TRANSPORTATION PROJECT
US NAVY MEETING
MONDAY, OCTOBER 1, 2001
9:30 A.M.
NAVY PUBLIC WORKS CENTER CONFERENCE ROOM

Attendees: Art Antolin, PACDIV PLN 215
Connie Chang, PACDIV PLN 23
Lansing Sugita, PWF 400 – Engineering
Melvin Kaku, PACDIV PLN 23
Faith Miyamoto, Department of Transportation Services (DTS)
Ann Koby, Parsons Brinckerhoff
Lydia Yee, RM Towill
Greg Hiyakumoto, RM Towill

Purpose: Discuss the bus rapid transit (BRT) project, including the Luapele ramp and Aloha Stadium overflow parking facility.

Summary: Faith Miyamoto gave a brief overview of the BRT project as presented in the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS). She explained that the Regional BRT component includes express bus service, extending the AM zipper lane, a PM zipper lane, transit centers and access ramps. Ms. Miyamoto briefly presented the In-Town BRT alignments to Waikiki and the University of Hawaii – Manoa. Ms. Miyamoto then explained that since the MIS/DEIS was released for review and comment, the DTS formulated working groups in several of the areas along the alignments. She explained that the Navy – Lansing Sugita – participated in the Pearl City/Aiea Working Group. The working groups resulted in several project refinements, as follows:

- Kamehameha Drive-In is no longer being considered as a transit center site. The Aloha Stadium/Luapele Ramp has replaced the ramp from the Kamehameha Drive-In site (Kaonohi Ramp).
- The BRT alignment will now use Pensacola Street instead of Ward Avenue between S. King Street and Kapiolani Blvd.
- A new BRT alignment is being included. It is the Kakaako makai alignment operating from the Iwilei Transit Center on Iwilei Road, continuing on S. King Street, Hotel Street Transit Mall, Bishop Street, Richards Street, Aloha Tower Drive, Ala Moana Boulevard, Channel Street, Ilalo Street, and Ward Avenue before connecting with the Waikiki alignment.

Ms. Miyamoto passed out the Regional and In-Town BRT alignment maps, including the Kakaako makai alignment map. She explained that a Supplemental Draft Environmental Impact

Statement (SDEIS) was being prepared and gave the Navy personnel copies of the SDEIS Environmental Impact Statement Preparation Notice (EISPN), published in the August 23, 2001 The Environmental Notice and a copy of the Notice of Intent (NOI) published in the September 26, 2001 Federal Register. One of the Navy personnel asked if the DTS had received any response on the EISPN from the neighborhood. Ms. Miyamoto replied that they had not.

Greg Hiyakumoto then presented the proposed Luapele ramp design. He explained that the ramp would be a single lane, reversible ramp that would feed the buses into the H-1 median.

The Navy personnel had following comments:

1. The Navy intends to deed Luapele Road to either the State or City.
2. The queue at the gates is relatively short and since there are lots of people trying to access the base during peak hours this results in long traffic queues.
3. The queue at St. Elizabeth School is ten cars and that is not long enough and this results in traffic problems.
4. The traffic queues at the gates are worse since the September 11, 2001 terrorist attacks because security has been heightened. The Navy personnel believe that the heightened security will be in place for an indefinite time period and should be considered in the traffic analysis.
5. The Luapele gate is open from 5-8 a.m. and 3-6 p.m. and traffic queues onto Salt Lake Blvd.
6. Navy personnel wanted to know how the buses are going to integrate/affect Navy traffic.
7. Are any other alternatives being considered for the Luapele ramp? Faith Miyamoto explained that during the Pearl City/Aiea Working Group meetings several options were analyzed and Luapele was the preferred site.
8. The DTS should contact the area residents regarding the proposed Luapele ramp/BRT project.
9. There is Navy housing in the area where numerous admirals and other high-ranking Navy personnel live and they can be very vocal.
10. How recent are the traffic counts? If the traffic analysis uses traffic counts taken before September 11, 2001, the information will not be valid as the traffic patterns have changed.
11. City Councilmember Gary Okino has sent the Navy a letter regarding his concerns that the proposed Ford Island Development would have an adverse effect on the BRT

AR00016391

project and the bus priority lanes proposed on Kamehameha Highway. Councilmember Okino recently presented his objections at a neighborhood board meeting. The Navy personnel indicated that a BRT alignment on Kamehameha Highway was news to them. They also indicated that the Hawaii Department of Transportation indicated their concern regarding through traffic on Kamehameha Highway with BRT.

12. The Navy personnel advised that they have met with Wayne Yoshioka and Cheryl Yoshida, Parsons Brinckerhoff, regarding traffic movements at intersections near Pearl Harbor.
13. There is a proposed Veteran's Center on Kamehameha Highway.
14. The Navy's tunnel is active. Ideally the Luapele ramp should be designed to go over the tunnel. The tunnel is very old and carries fuel from Red Hill to the Navy yards. The tunnel goes under the Navy's main buildings.
15. Connie Chang will be reviewing the BRT environmental documents for NEPA compliance.
16. The Navy needs to determine whether or not they want to be a co-lead on the EIS.
17. Stanford Yuen at the Navy is the intergovernmental liaison.
18. Commander Summer is responsible for environmental issues.

Since traffic is one of the Navy's concerns, it was agreed that once the traffic analysis for the Luapele ramp area was completed an additional meeting would be scheduled to review the analysis.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
HAWAII DEPARTMENT OF TRANSPORTATION (HDOT) MEETING
WEDNESDAY, OCTOBER 10, 2001
9:00 P.M.
HDOT 5TH FLOOR CONFERENCE ROOM

Attendees: Brian Minaai, HDOT
Glenn Yasui, HDOT
Toru Hamayasu, Department of Transportation Services (DTS)
Norman Kawachika, DTS

Purpose: Discuss alternative to proposed Middle Street ramp

Summary: BRT project team presented an alternative to the proposed Middle Street ramp. This alternative was proposed by HDOT during a previous meeting to mitigate some of HDOT's concerns, such as the left-hand exit and the need for a major flyover structure. Some design concerns associated with the ramp, such as requiring buses to weave across three highly congested lanes to exit and sight distance restrictions, were discussed and G. Yasui stated that he would review the design in detail.

B. Minaai expressed his support for the proposed transit improvements, but cautioned that the project should not impact capacity on State facilities.

The revised Kakaako alignment was also discussed in detail. HDOT expressed concern about BRT vehicles blocking Nimitz Highway after leaving Aloha Tower Marketplace to go mauka on Alakea Street. G. Yasui was also concerned about the reduction of intersection capacity, if signal preference was given to transit. B. Minaai mentioned the future State plans, but did not elaborate. The Kakaako Makai alignment needs to be further coordinated with the HDOT-Harbors Division regarding the Channel Street land acquisition.

AR00016392

PRIMARY CORRIDOR TRANSPORTATION PROJECT
U.S. NAVY MEETING
FRIDAY, OCTOBER 12, 2001
2:30 P.M.
NAVY PUBLIC WORKS CENTER CONFERENCE ROOM

Attendees: Captain Jennifer Mustain, Commanding Officer, Navy PWC and Facilities Engineer for Commander Navy Region Hawaii
Becky Hommon, Navy Region Hawaii Counsel
Melvin Kaku, PACDIV PLN 23
Connie Chang, PACDIV PLN 23
Lansing Sugita, PWF 400 – Engineering
Toru Hamayasu, Department of Transportation Services (DTS)
Norman Kawachika, DTS

Purpose: Discuss project with Navy Public Works staff

Summary: An overview of the project was presented.

The Luapele ramp access was specifically discussed. Luapele Road is used as the primary access to the facility from the north. New security measures and transit use of the road as the ramp access must be coordinated with the Navy.

The Navy expressed concern regarding the impact of the proposed Kamehameha Highway contra-flow lane on the Ford Island access. The proposed BRT project does not impact the causeway traffic operation at Salt Lake Boulevard. A follow-up meeting will be scheduled when the Navy completes the Ford Island EIS.

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
HWY-PS
2.4594

OCT 2 4 2001

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project, Supplemental Draft Environmental Statement (DEIS) Preparation Notice

Thank you for the opportunity to review the Preparation Notice for the Supplemental DEIS.

We request that you respond to our previous comments (DIR 1.110300, dated 11/3/00) on the Draft EIS and (DIR 1.015, dated 3/16/01), which includes further comments regarding the Primary Corridor Transportation project. Further comments are listed below:

1. Because our statewide needs far exceed our limited resources, we cannot commit State highway funds for the Bus Rapid Transit (BRT)project.

2. The Supplemental DEIS needs to update previous information about where and when the City proposes to convert existing traffic lanes to contra-flow and/or to BRT use.

3. At the time traffic lanes are initially converted to exclusive use of the proposed In-Town BRT:
   - Which intersections and roadways will have reduced levels of service?
   - What will be the cumulative impacts on the duration and severity of traffic congestion at screenlines?
   - How many drivers will be worse off and how much more travel delay will they experience?
   - How many bus riders will be better off and how much less travel delay will they experience?

4. The Supplemental DEIS needs to address the impacts of the proposed makai Kakaako BRT route on cargo and cruise ship operations at Pier 2.

5. At the westbound approach to the Waiawa Interchange, deployment of the eastbound zipperlane reduces Interstate H-1 to a single westbound lane. The Supplemental DEIS should determine necessary improvements so that deployment of the eastbound zipperlane does not cause a bottleneck for morning westbound traffic in 2025. Proposed improvements also must not preclude construction of an additional lane to off-ramp 8-B to Waipahu.

6. Please describe the timing and nature of improvements needed on Nimitz Highway to accommodate the proposed extension of the eastbound zipperlane into Keehi Interchange.

7. Please evaluate the noise impacts resulting from increased peak afternoon traffic volumes when the proposed westbound zipperlane is deployed on Interstate H-1.

8. Within the existing Waiawa and Waiau Interchanges, where there is no shoulder lane, deployment of the proposed westbound zipperlane would narrow Interstate H-1 to three eastbound lanes. Please verify that there will be acceptable levels of service for eastbound traffic through these interchanges when the proposed westbound zipperlane is initially deployed. We also request that you evaluate when and how these Interchanges will need to be widened so that deployment of the proposed westbound zipperlane will not cause a bottleneck for increasing eastbound traffic volumes.

9. Full compliance with Interstate Standards is normally a reasonable alternative to Design Exceptions. Hence, you need to compare the benefits, costs, and drawbacks of full compliance with Interstate Standards with the benefits, costs, and drawbacks for each proposed Design Exception. Unless compelling justification is provided, we may not support and FHWA may not grant even a temporary Design Exception for substandard at-grade highway shoulders.

10. According to the Preparation Notice, new ramps and freeway widening are proposed for exclusive BRT access to Interstate Route H-1 from a proposed Kapolei Interchange, a proposed transit center near the Kunia Interchange, Luapele Drive near the Stadium, and the Radford Drive overpass. According to the Preparation Notice, a new ramp is also proposed for unrestricted vehicular access from Interstate Route H-1 to a proposed City transit center near Middle Street.

For each of these locations, we request that the Supplemental DEIS separately:

- provide updated plans showing proximity to other ramps.
- provide updated cost estimates.
- describe temporary construction-related impacts to freeway traffic and what mitigation measures are proposed.
- describe long-term environmental impacts and mitigation measures.
- describe what traffic movements would be allowed on the proposed ramp.
- explain how the BRT would be rerouted if no zipperlane were deployed and/or the proposed ramp were temporarily unusable.
- estimate daily bus riders using the proposed ramp, both when initially constructed and in 2025.
- estimate the drop in projected daily bus ridership if the proposed ramp were not constructed.
- estimate peak traffic volume on the proposed ramp and the lane into which the ramp would merge in 2025.
- assess design features and traffic controls necessary for articulated buses to safely enter and exit the proposed ramp.

Much of this information will also be needed for a formal Justification Report which must be submitted for our concurrence and FHWA approval before new access is allowed to our Interstate system.

If you have any questions, please contact Ronald Tsuzuki, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours;

BRIAN K. MINAAI
Director of Transportation

Enclosures (DIR 1.110300 and DIR 1.015)

c: Office of Environmental Quality Control (w/attach.), FHWA (w/attach.)

AR00016394

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3122
Box 50088
Honolulu, Hawaii 96850

In Reply Refer To ER-01-915

NOV - 6 2001

Dr. Laura Kong
Environmental Specialist
Federal Highway Administration
300 Ala Moana Boulevard
Box 50206, Room 3-306
Honolulu, HI 96850

Re: Notice of Intent to Prepare a Supplemental Draft Environmental Impact Statement on Transportation Improvements in the Primary Transportation Corridor of the City and County of Honolulu, Hawaii

Dear Dr. Kong:

The U.S. Fish and Wildlife Service (Service) has reviewed the September 26, 2001, Federal Register notice that a Supplemental Draft Environmental Impact Statement (SDEIS) will be prepared for the proposed project referenced above. The proposed project is sponsored by the Federal Transit Administration, Federal Highway Administration, and the Hawaii Department of Transportation. This letter has been prepared under the authority of and in accordance with provisions of the National Environmental Policy Act of 1969 [42 U.S.C. 4321 *et seq.*; 83 Stat. 852], as amended, the Fish and Wildlife Coordination Act of 1934 [16 U.S.C. 661 *et seq.*; 48 Stat. 401], as amended, the Endangered Species Act of 1973 [16 USC 1531 *et seq.*; 87 Stat. 884], as amended, and other authorities mandating Department of the Interior concern for environmental values. Based on these authorities, the Service offers the following comments for your consideration.

The proposed project has been modified since the Draft EIS. The SDEIS will address the following proposed changes to the Bus Rapid Transit (BRT) Alternative selected as the Locally Preferred Alternative by the City and County of Honolulu on November 29, 2000: (1) addition of an In-Town BRT branch to serve Aloha Tower Marketplace and Kakaako Makai, (2) realignment of a section of the In-Town BRT alignment from Ward Avenue to Pensacola Street, and (3) relocate the H-1 BRT freeway ramp from the Kaonohi Street overpass to a section of the freeway near Aloha Stadium.

The Service has reviewed the information that was provided in the Federal Register Notice and pertinent information in our files. Federally listed species are not known to occur at the sites of the proposed modifications.

Nevertheless, the Service recommends that the SDEIS address potential project-related impacts to native Hawaiian marine species known to exist adjacent to the Kakaako Makai area and native aquatic life known to occur in streams near the Aloha Stadium. Measures to avoid unnecessary impacts and Best Management Practices to minimize unavoidable impacts to native organisms and habitat should be incorporated into the project. For example, we recommend that these measures include the use of effective sediment containment devices and the revegetation of cleared ground as quickly as possible to minimize project-related sedimentation of stream and coastal waters.

The Service appreciates the opportunity to comment on the Notice of Intent. If you have questions regarding these comments, please contact my Environmental Review Coordinator, Michael Molina, by telephone at (808) 541-3441 or by facsimile transmission at (808) 541-3470.

Sincerely,

Paul Henson
Field Supervisor

cc: ACOE-HED, Fort Shafter
USEPA-Region IX, Honolulu
NMFS-PIAO, Honolulu
DAR, Hawaii
CZMP, Hawaii
CWB, Hawaii

AR00016395

PRIMARY CORRIDOR TRANSPORTATION PROJECT
OFFICE OF ENVIRONMENTAL QUALITY CONTROL (OEQC) MEETING
MONDAY, FEBRUARY 11, 2002
9:30 A.M.
PARSONS BRINCKERHOFF CONFERENCE ROOM

Attendees: Nancy Heinrich, Office of Environmental Quality Control (OEQC)
Faith Miyamoto, Department of Transportation Services (DTS)
Ann Koby, Parsons Brinckerhoff

Purpose: Discuss SDEIS/FEIS process issues related to appendices, responses to comments, etc.

Summary: Nancy Heinrich gave a brief overview of OEQC's standards for voluminous environmental impact statements (EISs). She used the Hawaiian Electric Company's (HECO's) Kamoku-Pukele Transmission Line Project as an example. For that EIS, the consultant sent letters to the EIS recipients asking them if they wanted all ten volumes, did not want to receive the EIS, or options to receive certain EIS volumes.

A discussion ensued regarding the numerous reports associated with the PRIMCOR project. The data in the technical reports has been superseded in many cases since the Draft EIS (DEIS) was published and the technical reports have not been redone to reflect the project changes. The public is apt to compare the technical report data to the Supplemental DEIS (SDEIS), and/or Final EIS (FEIS) and the information will not match.

At a minimum, OEQC requires that the reports are made available to the public. Faith Miyamoto explained that in the past, the DTS has placed the EIS and relevant technical reports in the libraries along the project corridor. DTS has made available the technical reports so that people can call and get copies.

Another option discussed was posting the EIS and supporting technical reports on the project website. Ms. Heinrich suggested a CD. Ms. Miyamoto stated that the Major Investment Study (MIS)/DEIS was reproduced onto CDs, but that people had problems being able to access the plans and profiles because they did not have the appropriate software available.

It was agreed that a list of PRIMCOR technical reports would be compiled for Nancy Heinrich's review.

Ms. Heinrich also stated that everyone who sent a substantive comment on the DEIS and/or SDEIS needed to receive a letter restating their comment(s), the responses as they appear in the FEIS, and the exact FEIS text changes that relate to the comment and response. When asked if a matrix with the comments and responses would suffice, Ms. Heinrich indicated it would not.

Ms. Heinrich also reminded attendees that the OEQC must approve the SDEIS and FEIS distribution lists and not to forget the signature sheet.

Action Items: The meeting resulted in the following action items.

1. Prepare a list of the PRIMCOR technical reports that will be made available to the public for OEQC review.
2. Discuss options for the comments/responses/FEIS text changes with OEQC and agree upon the format.

AR00016396

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

DIR 1.015

March 16, 2001

MEMORANDUM

TO: OMPO Policy Committee

Councilmember Duke Bainum, Chair	Senator Cal Kawamoto, Vice-Chair
Councilmember John DeSoto	Senator Fred Hemmings
Councilmember John Henry Felix	Senator Brian Kanno
Councilmember Steve Holmes	Representative Willie Espero
Councilmember Rene Mansho	Representative Mark Moses
Cheryl Soon, DTS Director	Representative Joseph Souki

FROM: Brian K. Minaai, Director of Transportation

SUBJECT: Oahu Regional Transportation Plan

As the OMPO Policy Committee begins to finalize the Oahu Regional Transportation Plan, (ORTP), it is important that Department of Transportation (DOT) identify its priority projects that must be included in the ORTP. These priorities include the following project categories: System preservation projects, safety projects, and highway system congestion relief projects.

First, funding of system preservation projects is vital in preserving and maintaining DOT's entire highway system. Projects in this category are not specifically identified in the draft ORTP, but adequate levels of funding for our aging highway system must be budgeted for.

Secondly, the following major safety projects must be included:

1. Farrington Highway Safety Improvements, Nanakuli to Makaha, Project No. W-8 is an important safety project for an area that has experienced many vehicular and pedestrian incidents.

2. Kalanianaole Highway, Rockfall Protection at Makapuu, Project No. U-1 is an extremely important safety project to prevent a closure of the highway similar to what occurred at Waimea Bay last year.

3. Kamehameha Highway Widening, Ke Uka to Lanikuhene, Project No. C-7 is urgently needed not only for congestion relief, but more importantly for safety purposes, as this area is the location of many major traffic incidents.

4. Kamehameha Highway Safety Improvements, Kahaluu to Waimea Bay, Modified Project No. K-9, is another much needed project to address the many vehicular and pedestrian incidents that have occurred along this coastal highway

5. Sand Island Bridge (replace with a tunnel), Project No. P-35 is vital in providing the State's primary harbor a needed second harbor entrance in case of a major accident blocking the present harbor channel. This project will remove the existing bridge and replace it with a tunnel to allow larger ships to utilize Honolulu Harbor, translating into lower cargo costs to our residents.

And finally, the Department of Transportation's congestion relief priority on Oahu is the H-1 corridor system from Urban Honolulu to the Leeward Oahu and up H-2 to Central Oahu.

1. H-1, Waiawa Interchange to Halawa Interchange:

   a. Project No. P-6, H-1 Widening, Waimalu Viaduct to Pearl City Viaduct.
   b. Project No. P-7, H-1 Widening (EB), Waiawe to Helawa. (white funding category)
   c. Project No. P42, H-1 Widen Waipahu Off-Ramp.
   d. Project No. U-2, H-1 Widening (WB) through Waiawa Interchange.
   e. Project No. U-3, H-1 Widening (WB), Waiau to Waiawa Interchange.
   f. Project No. U-4, Waiawa Interchange, Missing Ramp Movements.

All of these projects are part of a total system improvement. These projects are complementary and should be treated as a single project to improve an existing system. Deletion of any one of these projects would cause a system dysfunction.

2. H-1, Middle Street to Kapiolani Interchange and Nimtz Highway:

   a. Project No. P-8, H-1 WB Widening, Vineyard to Middle. (white funding category)
   b. Project No. P-9, H-1 WB Weave Modification, Lunalilo to Vineyard. (white funding category)
   c. Project No. P-10, H-1 EB Widening, Ward to Punahou, Close Piikoi On-Ramp.(white funding category)
   d. Project No. P-11, H-1 University Interchange Modifications. (white funding category)
   e. Project No. P-23, Nimitz Highway Improvements, Keehi to Pacific Street.

All of these projects are complementary and are elements of a systemwide improvement to make our oldest section of the H-1 Freeway operate more efficiently and safely. Deletion of any of these projects would hamper our efforts to improve traffic flow and safety. These projects should be treated as a single project to improve an existing system. Deletion of any one of these projects would cause a system dysfunction.

3. Kahekili Highway Widening, Project No. K-2 is badly needed to address the congestion that occurs daily. This project was originally in the dark blue funding category for deletion, but OMPO Policy Committee in the last meeting agreed at DOT's request to place the project in thewhite/yellow category. Further, this project should be redescribed to end at Ahuimanu (rather than Kamehameha Highway).

4. Intelligent Transportation Systems, Project No. I-3 is important because it allows DOT to operate our existing highway system more efficiently to provide critical congestion relief (white funding category).

At the next OMPO Policy Committee meeting on Monday, March 19, 2001, the Oahu Regional Transportation Plan (ORTP) will be financially constrained. Towards that end, the following are DOT's recommendations.

1. Include in the ORTP, and shift from the white funding category to the yellow funding category those previously identified DOT high priority projects which include modified K-9, P-7, P-8, P-9, P-10, P-11, K-12, I-3, and K-2, totaling approximately $730 million.

2. Delete Project No. W-1, Waianae Second Access across the Waianae Range - $515 million for the following reasons:

   a. High cost (which is underestimated - this project is comparable to another H-3 project, which cost more than a billion dollars), due to its steep and rough topography.
   b. Adverse environmental impacts on endangered species, streams, Kamaili Punenaula Heiaus, residences, farm lots and Hawaiian Homelands.
   c. Increased congestion on Kunia Road and Kunia Interchange may require improvements to those two facilities and add to the total project cost.

3. Delete Project No. P-30, Sand Island Scenic Parkway plus Marina Road plus Fort Armstrong Tunnel -$615 million for the following reasons:

   a. The proposed project severely conflicts with DOT Harbors development plans, which are designed for the efficient, economical and optimal use of the area.
   b. The widening of the Kalihi Channel Bridge will directly conflict with DOT's proposal to replace the existing bridge with a new, much needed DOT Harbors' tunnel (Project No. P-35).
   c. The Fort Armstrong Tunnel portal directly conflicts with the DOT Harbors Division's planned use in the vicinity of Piers 1 and 2.
   d. The Fort Armstrong Tunnel portal also conflicts with the Hawaii Community Development Authority's (HCDA) proposed Punchbowl Street Extension project and its Makai District development plans. HCDA has expressed strong opposition to the Sand Island Scenic Parkway project.
   e. DOT's project to replace the existing Sand Island Bridge with a new tunnel (Project No. P-35) will probably compete with the Sand Island Scenic Parkway for the same discretionary federal funds, which are limited. Funding of both projects is highly unlikely.

   DOT strongly opposes this project.

4. Delete Project No. P-33, Nimitz Highway Lane Reduction - $36.4 million for the following reasons:

a. This project is intended to be developed in conjunction with the Sand Island Scenic Parkway, which DOT opposes.

b. This project directly conflicts with our proposed congestion relief improvements to Nimitz Highway (Project No. P-23).

c. The proposed reduction in lanes on Nimitz Highway will have a tremendous adverse impact on our cargo and maritime operations along the Honolulu Harbor waterfront. The resulting increased congestion on Nimitz Highway will adversely impact all of the maritime users of Pier 10/11 through Piers 40, as well as the local circulation in the area.

DOT strongly opposes this project.

5. The following are comments regarding the Bus Rapid Transit (BRT) project – Regional Highway Portion, Project No. P2a:

a. DOT cannot commit funding for this project because our limited resources far exceed the statewide needs.

b. Wherever the BRT project causes a reduction in Interstate standards, the project cost must include work to restore these standards. Therefore, the BRT project cost is grossly underestimated.

6. As for the Bus Rapid Transit project – In-town BRT, Project No. P-2b, DOT is very concerned about the congestion impact that will be caused by the reduction of roadway lanes and the resulting reduction in roadway capacity. The City's Draft Environmental Impact Study does not adequately disclose this impact nor does it identify any mitigation measures to address this impact. DOT will scrutinize any proposed reduction of roadway lanes, especially on State highways, such as on Ala Moana Boulevard. Satisfactory mitigation measures must be implemented before the proposed project can be constructed.

The tremendous number of transportation projects that have been identified which far exceed our limited financial resources many times over; DOT must balance the transportation priorities statewide, including needs for the neighboring counties of Maui, Kauai, and the Big Island.

I hope this serves to clarify the State Department of Transportation's priorities regarding the formulation of OMPO's Oahu Regional Transportation Plan.

c: The Honorable Benjamin J. Cayetano, Governor
Mr. Gordon Lum, OMPO Executive Director
Mr. Abe Wong, FHWA Administrator
Ms. Jan Yokota, HCDA Executive Director
DOT, Harbors Division
DOT, Highways Division
DOT, Statewide Transportation Planning Office
Ms. Jennifer Goto-Sabas, Chief of Staff
Office of The Honorable Daniel K. Inouye, Congressmember
Mr. Alan Furuno, District Director
Office of The Honorable Neil Abercrombie, Congressmember

EXHIBIT A-5. AGENCY COORDINATION SINCE THE SDEIS

This exhibit contains a record of agency correspondence and consultation since the issuance of the SDEIS. A list of the correspondence and consultation activities is provided below. Copies of these documents are provided in this exhibit.

SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Minutes of May 3, 2002 meeting with Historic Hawaii Foundation

Minutes of June 24, 2002 meeting with the State Historic Preservation Division (SHPD)

July 17, 2002 letter from DTS to the State Historic Preservation Officer (SHPO) requesting concurrence on Effect Determinations for the BRT Alternative Historic Districts, Buildings, Structures, and Landscapes. Letter contains concurrence signature by the SHPO.

August 27, 2002 letter from DTS to the Office of Hawaiian Affairs submitting the archaeological assessment report for review and comment.

August 27, 2002 letter from DTS to the SHPD submitting the archaeological assessment report for review and comment.

November 6, 2002 letter from the SHPO to DTS providing concurrence with the results of the archaeological assessment report.

February 14, 2003 letter from DTS to Hui Malama I Na Kapuna O Hawaii Nei requesting a meeting to discuss project impacts to historic properties

March 19, 2003 letter from the SHPD regarding completion of initial consultation with the Oahu Island Burial Council.

Section 106 Memorandum of Agreement between the FTA and Hawaii SHPO, with DTS concurrence.

FARMLAND PROTECTION POLICY ACT

July 17, 2002 letter from DTS to U.S. Department of Agriculture regarding Farmland Protection Policy Act Form AD-1006

SAFE DRINKING WATER ACT

March 27, 2002 letter from U.S. Environmental Protection Agency to DTS for the Section 1424(e) review of Southern Oahu Basal Aquifer (SOBA) Sole Source Aquifer, requesting additional information on the proposed project.

March 5, 2003 letter from DTS to U.S. Environmental Protection Agency responding to March 27, 2002 letter.

April 28, 2003 letter from U.S. Environmental Protection Agency to DTS completing Section 1424(e) review.

COASTAL ZONE MANAGEMENT ACT

May 24, 2003 letter from DTS to State Department of Business, Economic Development and Tourism, Office of Planning (OP) submitting a Hawaii Coastal Zone Management (CZM) Program Assessment Form for the proposed project.

June 30, 2003 letter from OP to DTS providing concurrence with DTS's assessment that the grant agreement for the proposed project would be consistent with the Hawaii CZM Program.

OTHER CORRESPONDENCE

October 24, 2001 letter from Hawaii Department of Transportation to DTS regarding SDEISPN

April 15, 2002 letter from Hawaii Department of Transportation regarding Development Plan Public Facilities Map Amendment

April 29, 2002 letter from the State of Hawaii Department of Land and Natural Resources to DTS regarding Historic Preservation Review – Cultural Practices Assessment

May 7, 2002 memorandum from Department of Environmental Services to DTS regarding the SDEIS

May 24, 2002 letter from U.S. Army to DTS regarding the SDEIS

PRIMARY CORRIDOR TRANSPORTATION PROJECT (POP8)
HISTORIC HAWAII FOUNDATION (HHF) MEETING
Friday, May 03, 2002 9:00 A.M. at HHF Offices

Attendees: David Scott, HHF Executive Director
Faith Miyamoto, Department of Transportation Services
Ann Koby, Parsons Brinckerhoff

Purpose: Discuss the potential bus rapid transit (BRT) historic/cultural resources components.

Summary: Faith Miyamoto gave a brief overview of the BRT project and the project refinements since the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) was published. She advised Mr. Scott that the HHF received the MIS/DEIS, but did not receive a copy of the Supplemental DEIS (SDEIS).

Ms. Miyamoto passed out the Regional and In-Town BRT alignment maps, including the Kakaako Ma Kai Alignment Map.

Ms. Miyamoto discussed the historic effects associated with the proposed project. These effects are limited to the BRT stops in the Capitol, Chinatown and University Historic Districts. She explained that the Area of Potential Effect (APE) includes the streets where the BRT is operating and one building around the stops and stations. She told Mr. Scott that the goal is to have no adverse effects and that this is to be accomplished using sensitive design features in those areas.

Ms. Miyamoto also explained that a Draft - Act 50 Report was completed and gave Mr. Scott a copy. Mr. Scott also received copies of the MIS/DEIS and SDEIS Executive Summaries, Sections 3.10-Historic and Archaeological Resources, and Sections 5.10-Historic and Archaeological Resources Effects.

Mr. Scott advised the following:

1. The HHF is a nonregulatory entity that is funded from private donations. He gave Ms. Miyamoto and Ms. Koby brochures about the HHF.
2. The HHF's focus is primarily historic structures, but has broadened to traditional cultural practices and view planes.
3. His areas of concern are maintaining the coral curbs and that the BRT stop designs do not affect historic properties and are compatible with their surrounding environment.
4. He prefers electric BRT vehicles.
5. He feels a mass transit system for Honolulu is long overdue and that taking a traffic lane will entice folks to use mass transit instead of cars.
6. If the HHF does not have a problem with a project, they will not write a letter.

Faith Miyamoto and Ann Koby committed to send Mr. Scott copies of the BRT stop concepts that Urban Works developed. (These concepts were mailed to Mr. Scott on May 3, 2002.)

AR00016402

PRIMARY CORRIDOR TRANSPORTATION PROJECT [POP11]
MEETING WITH THE STATE HISTORIC PRESERVATION DIVISION (SHPD)
MONDAY, JUNE 24, 2002 @ 9:45AM

Attendees: Don Hibbard, SHPD
Tonia Moy, SHPD
Faith Miyamoto, DTS
Ann Koby, PB
Jason Yazawa, PB

Purpose: Brief the staff of the State Historic Preservation Division on the project status and continue consultation pursuant to Section 106 of the Natural Historic Preservation Act.

Summary: Highlights for this meeting follow, but this consultation did not include discussion of archaeological sites and resources, which will be held on a later date.

Ms. Miyamoto described the following changes to the project definition that were made following public release of the Supplement Draft Environmental Impact Statement (SDEIS):

- Eliminating the Kapolei, Kunia, and Middle Street bus ramps and the H-1 Express Lanes.
- Relocating the Ewa Park-and-Ride Facility from Kunia to a site near the future North-South Road, and
- Shifting the Kaka`ako Ma Kai Branch from Channel Street to Forrest Avenue.

Mr. Yazawa reminded the SHPD Staff that the project's Area of Potential Effect (APE) is limited to the streets that BRT would use. At transit centers or stop locations, the APE would extend to lots immediately adjacent to the facility because of potential visual impacts. The SHPD was previously consulted regarding this APE definition and concurred.

Enclosed with these minutes are historic and potentially historic properties within the APE preliminary effect determinations summary, excluding archaeological sites, which were presented to the SHPD Staff. The SHPD Staff agreed with the summary contents, including historic eligibility; except the following:

- The transit stops fronting the U.S. Post Office, Custom House and Court House Building, and the Hawaii State Library would cause adverse effects if structures (e.g. shelters) are used. SHPD asked for an explanation of why the segment near the S. King Street and Punchbowl Street intersection (existing bus stop) is not suitable for the Koko Head bound stop.
- The transit stop at Thomas Square would cause an adverse effect if structures are used; even though no park property would be affected. SHPD asked for an explanation of why the stop could not be placed at a different location.
- The transit stop at Sinclair Circle would not cause an adverse effect on the University of Hawaii Historic District.
- SHPD will field check the City & County of Honolulu Corporation Yard in Kaka`ako to determine its potential historic status.
- The Kapahulu transit stop may cause an adverse effect on Kapiolani Park due to its visual impact. SHPD asked that the Kapiolani Park Preservation Society be consulted with and for an explanation of why the stop could not be located in front of the Honolulu Zoo Parking Lot, which would not result in an adverse effect.

For the letter requesting State Historic Preservation Officer (SHPO) concurrence on effect determinations, Mr. Hibbard suggested that the letter list only those properties with adverse effect determinations. However, the letter could also provide the total number of historic properties along the BRT alignment(s) without having to name them all. Ms. Koby suggested that the SHPO concurrence request be a set of duplicate letters where the SHPO would counter-sign one of them to be returned to DTS. Mr. Hibbard stated that this process would be acceptable, but does not preclude the need for a Memorandum Of Agreement (MOA).

Action Items:

1. DTS to advise the SHPD on why there are no feasible alternatives to transit stops fronting the Downtown U. S. Post Office, Custom House and Court House Building (and not at the existing bus stop near Punchbowl Street), Thomas Square and Kapiolani Park (and not the Honolulu Zoo Parking Lot).
2. SHPD to determine historic eligibility of the City & County of Honolulu Corporation Yard in Kaka`ako.
3. DTS to submit request for SHPD concurrence on adverse effect determinations.

Distribution: Meeting Participants
Toru Hamayasu, DTS
Norman Kawachika, DTS
Bob Bramen, PB

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

July 17, 2002

TPD02-00327

Mr. Saku Nakamura
Soil Scientist
Natural Resources Conservation Service
U.S. Department of Agriculture
P.O. Box 50004
Honolulu, Hawaii 96850

Dear Mr. Nakamura:

Subject: Revised Site for City and County of Honolulu, Primary Corridor Transportation Project, Farmland Protection Policy Act, Form AD-1006

The City and County of Honolulu, Department of Transportation Services, in cooperation with the U.S. Department of Transportation, Federal Transit Administration, is proposing to construct a park-and-ride facility on the proposed North-South Road, between Farrington Highway and Interstate Route H-1. The proposed park-and-ride is part of the Primary Corridor Transportation Project. The facility would require the use of approximately four acres of agriculturally-zoned land.

In compliance with the Farmland Protection Policy Act, we need to determine the Farmland Conversion Impact Ratings for the project alternatives. Please find enclosed a revised Farmland Conversion Impact Rating form (AD-1006), with Parts I and III completed, per instructions. The attached maps indicate the location of the proposed park-and-ride facility.

The Primary Corridor Transportation Project proposes two build alternatives, both of which require the park-and-ride facility: the Bus Rapid Transit (BRT) and the Transportation System Management (TSM) Alternatives. The City and County of Honolulu zoning designation for this area is Restricted Agricultural (AG1). The No-Build Alternative would not require the use of farmland.

Please note that in September 2000, our consultant, Parsons Brinckerhoff, submitted an AD-1006 form for a transit center planned in the Waipahu area (on Kunia Road) as part of this project. That previously proposed site is no longer a part of the project and has since been replaced by the North-South Road park-and-ride now proposed.

We would appreciate your completing the appropriate parts of Form AD-1006 and returning it to us at your earliest convenience. If you should have any questions, please call Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

CHERYL D. SOON
Director

Enclosures:
1) Form AD-1006 with Parts I and III completed
2) Project location maps (two 11x17 sheets)

cc: Ann Koby, PB Consult, Inc.

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request
Name Of Project	Federal Agency Involved
Proposed Land Use	County And State
PART II *(To be completed by SCS)*	Date Request Received By SCS

Does the site contain prime, unique, statewide or local important farmland? Yes ☐ No ☐ *(If no, the FPPA does not apply – do not complete additional parts of this form).*		Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By SCS	

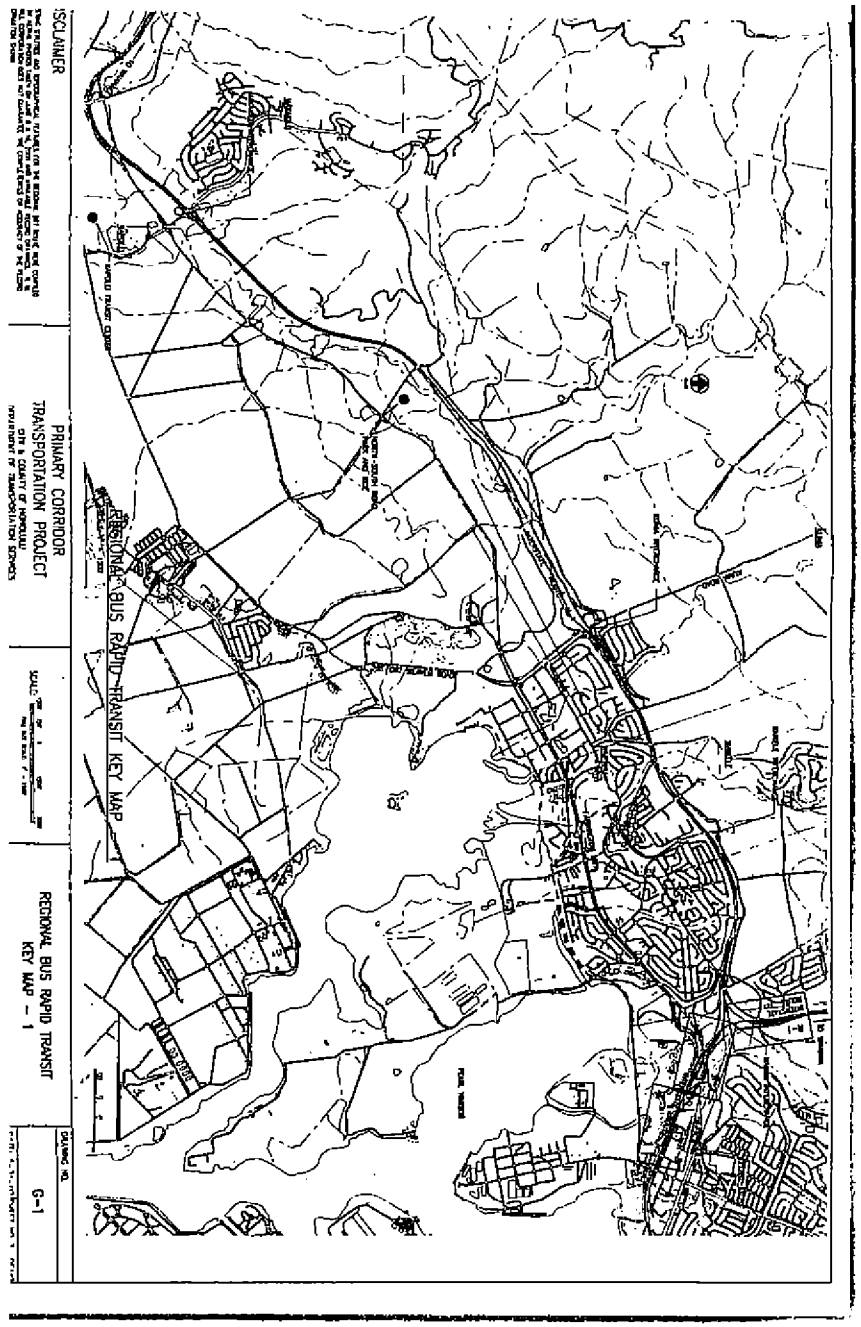
PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site				
PART IV *(To be completed by SCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by SCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*				
PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points			
1. Area In Nonurban Use				
2. Perimeter In Nonurban Use				
3. Percent Of Site Being Farmed				
4. Protection Provided By State And Local Government				
5. Distance From Urban Builtup Area				
6. Distance To Urban Support Services				
7. Size Of Present Farm Unit Compared To Average				
8. Creation Of Nonfarmable Farmland				
9. Availability Of Farm Support Services				
10. On-Farm Investments				
11. Effects Of Conversion On Farm Support Services				
12. Compatibility With Existing Agricultural Use				
TOTAL SITE ASSESSMENT POINTS	160			
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland *(From Part V)*	100			
Total Site Assessment *(From Part VI above or a local site assessment)*	160			
TOTAL POINTS *(Total of above 2 lines)*	260			

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

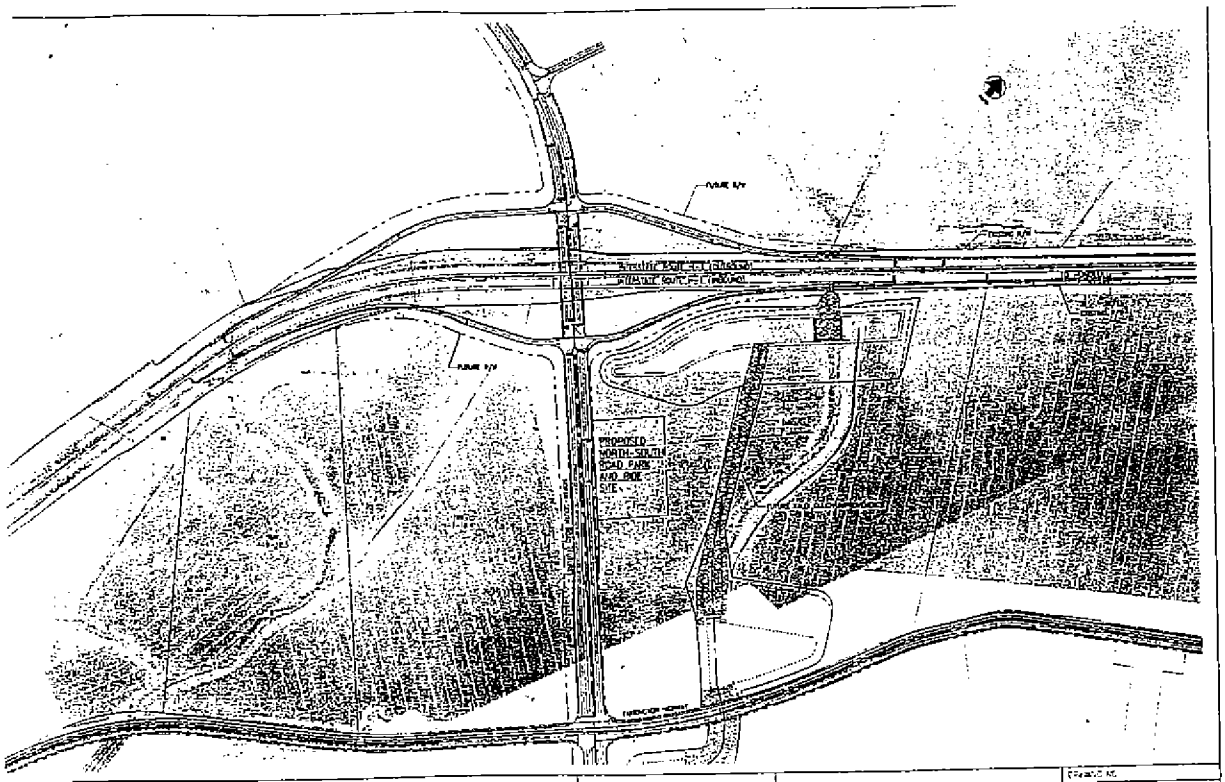
Reason For Selection:

(See Instructions on reverse side)

Form AD-1006 (10-83)



AR00016405



	PRIMARY CORRIDOR TRANSPORTATION PROJECT		NORTH–SOUTH ROAD PARK AND RIDE LOCATION PLAN	R–41

OCT 2 4 2001

DIR 1442
HWY-PS
2.4594

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Primary Corridor Transportation Project, Supplemental Draft Environmental Statement (DEIS) Preparation Notice

Thank you for the opportunity to review the Preparation Notice for the Supplemental DEIS.

We request that you respond to our previous comments (DIR 1.110300, dated 11/3/00) on the Draft EIS and (DIR 1.015, dated 3/16/01), which includes further comments regarding the Primary Corridor Transportation project. Further comments are listed below:

1. Because our statewide needs far exceed our limited resources, we cannot commit State highway funds for the Bus Rapid Transit (BRT)project.

2. The Supplemental DEIS needs to update previous information about where and when the City proposes to convert existing traffic lanes to contra-flow and/or to BRT use.

3. At the time traffic lanes are initially converted to exclusive use of the proposed In-Town BRT:
   - Which intersections and roadways will have reduced levels of service?
   - What will be the cumulative impacts on the duration and severity of traffic congestion at screenlines?
   - How many drivers will be worse off and how much more travel delay will they experience?
   - How many bus riders will be better off and how much less travel delay will they experience?

4. The Supplemental DEIS needs to address the impacts of the proposed makai Kakaako BRT route on cargo and cruise ship operations at Pier 2.

5. At the westbound approach to the Waiawa Interchange, deployment of the eastbound zipperlane reduces Interstate H-1 to a single westbound lane. The Supplemental DEIS should determine necessary improvements so that deployment of the eastbound zipperlane does not cause a bottleneck for morning westbound traffic in 2025. Proposed improvements also must not preclude construction of an additional lane to off-ramp 8-B to Waipahu.

6. Please describe the timing and nature of improvements needed on Nimitz Highway to accommodate the proposed extension of the eastbound zipperlane into Keehi Interchange.

7. Please evaluate the noise impacts resulting from increased peak afternoon traffic volumes when the proposed westbound zipperlane is deployed on Interstate H-1.

8. Within the existing Waiawa and Waiau Interchanges, where there is no shoulder lane, deployment of the proposed westbound zipperlane would narrow Interstate H-1 to three eastbound lanes. Please verify that there will be acceptable levels of service for eastbound traffic through these interchanges when the proposed westbound zipperlane is initially deployed. We also request that you evaluate when and how these Interchanges will need to be widened so that deployment of the proposed westbound zipperlane will not cause a bottleneck for increasing eastbound traffic volumes.

9. Full compliance with Interstate Standards is normally a reasonable alternative to Design Exceptions. Hence, you need to compare the benefits, costs, and drawbacks of full compliance with Interstate Standards with the benefits, costs, and drawbacks for each proposed Design Exception. Unless compelling justification is provided, we may not support and FHWA may not grant even a temporary Design Exception for substandard at-grade highway shoulders.

10. According to the Preparation Notice, new ramps and freeway widening are proposed for exclusive BRT access to Interstate Route H-1 from a proposed Kapolei Interchange, a proposed transit center near the Kunia Interchange, Luapele Drive near the Stadium, and the Radford Drive overpass. According to the Preparation Notice, a new ramp is also proposed for unrestricted vehicular access from Interstate Route H-1 to a proposed City transit center near Middle Street.

For each of these locations, we request that the Supplemental DEIS separately:

- provide updated plans showing proximity to other ramps.
- provide updated cost estimates.
- describe temporary construction-related impacts to freeway traffic and what mitigation measures are proposed.
- describe long-term environmental impacts and mitigation measures.
- describe what traffic movements would be allowed on the proposed ramp.
- explain how the BRT would be rerouted if no zipperlane were deployed and/or the proposed ramp were temporarily unusable.
- estimate daily bus riders using the proposed ramp, both when initially constructed and in 2025.
- estimate the drop in projected daily bus ridership if the proposed ramp were not constructed.
- estimate peak traffic volume on the proposed ramp and the lane into which the ramp would merge in 2025.
- assess design features and traffic controls necessary for articulated buses to safely enter and exit the proposed ramp.

Much of this information will also be needed for a formal Justification Report which must be submitted for our concurrence and FHWA approval before new access is allowed to our Interstate system.

If you have any questions, please contact Ronald Tsuzuki, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours;

BRIAN K. MINAAI
Director of Transportation

Enclosures (DIR 1.110300 and DIR 1.015)

c: Office of Environmental Quality Control (w/attach.), FHWA (w/attach.)

DM:mm

bc: DEP-J, PPB, STP, HWY, -T, -D, -PA, -PS (01-233) all w/attach.
DIR,HAR,HWY-O,-R w/attach

DIR 0518
HWY-PS
2.6197

APR 1 5 2002

The Honorable John DeSoto
Chair and Members
Honolulu City Council
City and County of Honolulu
530 South King Street
Honolulu, Hawaii 96813

Dear Chairman DeSoto and Members:

Subject: Development Plan Public Facilities Map Amendment (2002/DPPFM-5) for the Primary Urban Center Bus Rapid Transit (BRT) Iwilei to Waikiki Alignment, Honolulu, Oahu

Thank you for consulting us concerning the proposed Development Plan Facilities Map Amendment.

We support expanded provision of limited-stop bus service and conversion of overlapping bus routes to a hub-and-spoke system. However, before the City decides to take away traffic lanes from existing motorists, the City needs to fully disclose, and the public needs to be adequately informed of, traffic impacts which will occur at the time traffic lanes are initially converted to exclusive use by the proposed BRT. To date, this information has not been provided in the City's EIS documents.

All plans for work within the State highway right-of-way must be coordinated and submitted to our Highways Division for our review and approval. The proposed BRT alignment uses portions of Nimitz Highway and Ala Moana Boulevard—which are both State highways.

We consulted the Hawaii Community Development Authority (HCDA) and our Harbors Division concerning proposed BRT use of their property makai of Ala Moana Boulevard. The HCDA will not consent to the City proposal to extend Ilalo Street to Channel Street because the alignment would not be consistent with their adopted plan. However, they probably would welcome City assistance to implement their plan to extend Ilalo Street to Punchbowl Street. Our Harbors Division wishes to minimize constraints on container yard and cruise ship operations. Although the proposed Pier 2 Cruise Ship Terminal has been postponed, the City needs to consult the U.S. Coast Guard concerning design requirements, access limitations, and parking restrictions necessary to maintain security between the proposed Terminal and Ilalo Street.

If you have any questions, please contact Ronald Tsuzuki, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours,

BRIAN K. MINAAI
Director of Transportation

c: City Department of Planning and Permitting
City Department of Transportation Services
Hawaii Community Development Authority

DM: mm

bc: DEP-P, -S, STP, PPB, HAR, HWY, -O, -T, -D, -C, -R, -S, -PA, -PS (02-076)

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCES MANAGEMENT

DEPUTIES
ERIC T. HIRANO
LINNEL NISHIOKA

STATE OF HAWAII MAY 6 2002

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 555
601 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

April 29, 2002

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
411 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

LOG NO: 29753
DOC NO: 0204hm05

Attention: Ms. Faith Miyamoto

Dear Ms. Soon:

Subject: Historic Preservation Review (Chapter 6E, HRS) - Cultural Practices Assessment for the Primary Corridor Transportation Project (City and County of Honolulu)
Ewa to Waikiki, Oahu Island
TMK: Zones 1, 2, 3 and 9

Thank you for submitting for our review the draft report entitled *Act 50 - Cultural Practices Assessment Project Report* (PB Consult Inc. with N. Wong, December 2001). This study was undertaken to assess the potential impacts of the Primary Corridor Transportation Project on cultural practices as required under Chapter 343. We apologize for the delay in our review.

As you are probably aware, we limit our reviews of cultural practices assessments to those components which potentially fall within the jurisdiction of the historic preservation process as defined in Chapter 6E (HRS). Generally this means that we comment on three major components that have a bearing on the adequate identification, evaluation, and treatment of historic properties which are associated with traditions or practices. These include the methods used to identify individuals who are potentially knowledgeable of the project area's past; the description and assessment of any historic properties identified (i.e., those generally called traditional cultural properties); and the proposed treatment of identified properties. We do not, for example, comment on the adequacy with which studies assess a project's impacts on broadly based customary practices or native rights that are not associated with specific sites, places, or landscape features.

In this case, we appreciate the conceptual and methodological efforts made during the study to identify cultural practices within such a large and highly urbanized area and one in which multiple ethnic groups live or participate in activities. The approaches chosen to identify the study area, the kinds of practices to be considered, and the individuals or groups to be consulted is very clearly described and well reasoned. The information compiled and presented in the report is, however, still too general for us to determine if the identified practices contribute to the significance of particular historic properties or if the corridor project will specifically affect any these properties. We are hoping that the authors will be able to apply this study's results or methods to the more detailed historic property reports being prepared for the archaeological or architectural assessments.

If you have any questions, please call Nathan Napoka (587-0040) or Holly McEldowney (692-8028) of our History and Culture Branch.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

HM:jk

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
1000 ULUOHIA STREET, SUITE 308, KAPOLEI, HI 96707
(808) 692-5159, fax: (808) 692-5113

Jeremy Harris
Mayor

Timothy E. Steinberger, P.E.
Director

Frank J. Doyle, P.E.
Deputy Director

PRO 02-25

May 7, 2002

RECEIVED
02 MAY 13 A8:58
DIRECTOR'S OFFICE
DEPT. OF
TRANSPORTATION SERVICES

MEMORANDUM

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: TIMOTHY E. STEINBERGER, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

SUBJECT: PRIMARY CORRIDOR TRANSPORTATION PROJECT
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS)

We have reviewed the subject SDEIS, and have the following comments:

The project may potentially have an impact on the City's sewer lines that are located in the same alignment as the bus lanes, both during the construction phase and during future sewer maintenance activities. We are concerned about the potential impacts of nearby excavations, vibrations, and dewatering on the structural integrity of the sewer lines, especially the older ones. The design and construction of the subject project should be closely coordinated with the Department of Environmental Services, wherever the City's sewer lines may be impacted.

Should you have any questions, please call me at 692-5159, or Jack Pobuk, Program Coordinator, at 692-5727.

cc: OEQC

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

May 24, 2002

Office of the Garrison Commander

RECEIVED
02 JUN 7 P2:54
DIRECTOR'S OFFICE
DEPT. OF
TRANSPORTATION SERVICES

Ms. Cheryl D. Soon
Director, Department of Transportation Services
City and County of Honolulu
650 South King Street, Third Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

The Primary Corridor Transportation Project, sponsored by the City and County of Honolulu Department of Transportation Services, released its Supplemental Draft Environmental Impact Statement (SDEIS) on March 13, 2002. The Army, as represented by the U.S. Army Garrison, Hawaii (USAG-HI) and the Hale Koa Hotel (a major Army tenant at Fort DeRussy), appreciates the opportunity to review and provide comments on the SDEIS.

After reviewing this document, I would like to have further consultations concerning the portion of the proposed Revised Bus Rapid Transit (BRT) Alternative relating to Fort DeRussy and Kalia Road, as I believe the SDEIS must provide more information to the Army for adequately assess the impacts, if any, the project would have on the operations involving the Hale Koa Hotel. I am also concerned about the increase of vehicular and pedestrian traffic this project could cause as well as incorporating the unique military force protection requirements we now must consider and the potential negative impact they may have on our efforts to preserve open, green space at the entrance to Waikiki.

The Army is very interested in partnering with the City and County of Honolulu and the Department of Transportation Services to resolve our traffic problems in the most cost and effective manner while, at the same time, minimizing any potential adverse impacts. As a result. To this end, Colonel William E. Ryan III, my Director of Public Works, and his staff is ready to work with you in developing viable and mutually agreeable solutions to Honolulu's problems.

Please feel free to contact Colonel Ryan at 656-1289. Together, we can make a difference.

Sincerely,

William R. Putman
Colonel, U.S. Army
Commanding

AR00016411

Final Environmental Impact Statement

VOLUME 4 OF 4

Appendix B:

Initial Operating Segment
& Refined Locally
Preferred Alternative

Preliminary
Engineering Drawings

Primary Corridor Transportation Project

US Department of Transportation
Federal Transit Administration

City and County of Honolulu
Department of Transportation Services

JULY 2003

AR00016412

Final Environmental Impact Statement

VOLUME 4 OF 4

Appendix B:

Initial Operating Segment

Preliminary
Engineering Drawings

Primary Corridor Transportation Project

US Department of Transportation
Federal Transit Administration

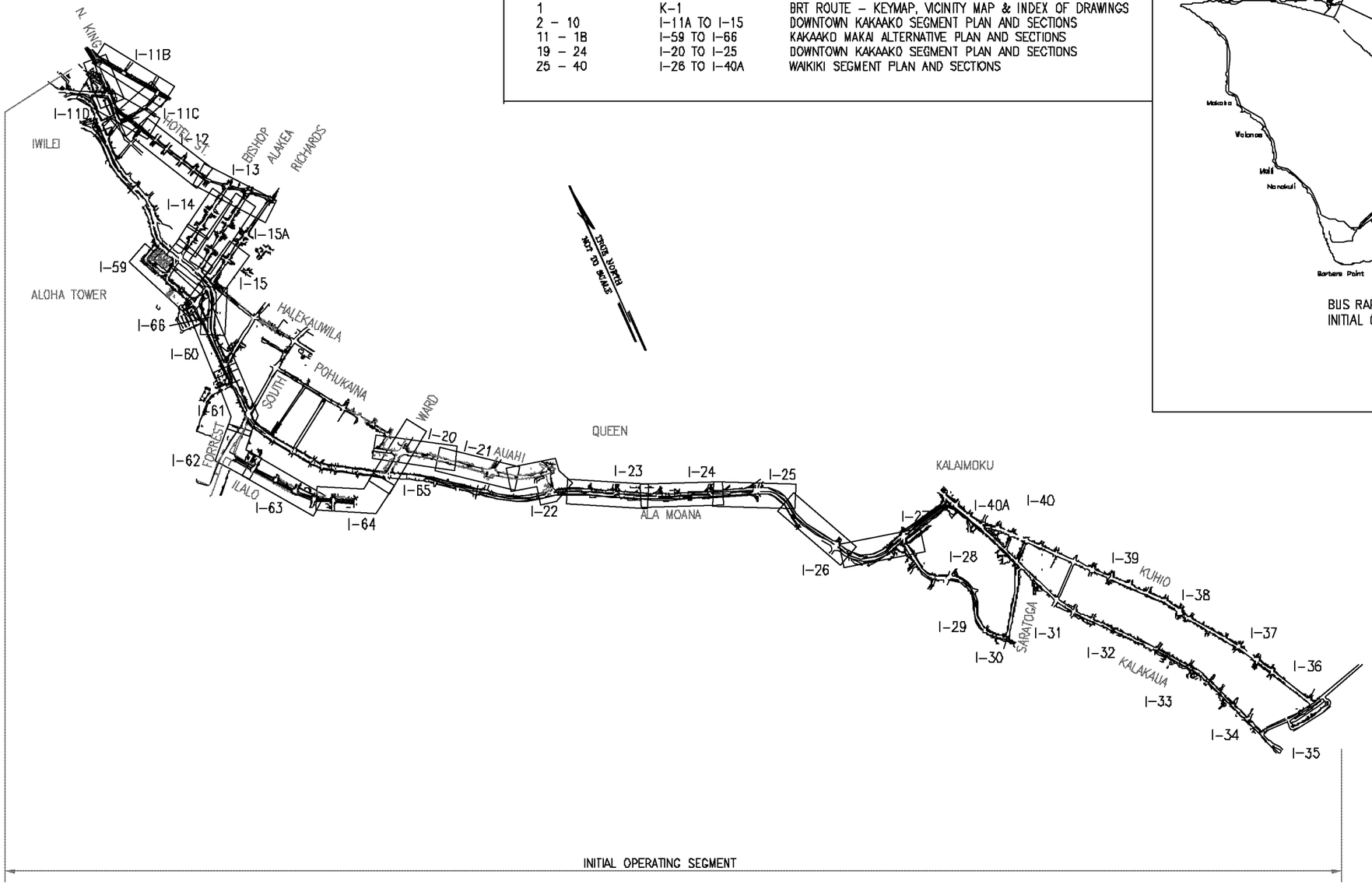
City and County of Honolulu
Department of Transportation Services

JULY 2003

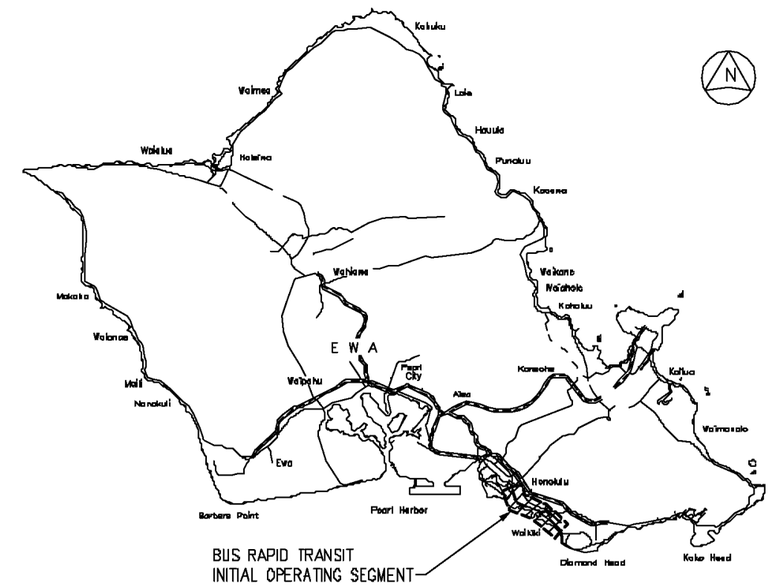
AR00016413

INDEX OF DRAWINGS

SHEET NO.	DWG NO.	DESCRIPTION
1	K-1	BRT ROUTE – KEYMAP, VICINITY MAP & INDEX OF DRAWINGS
2 – 10	I-11A TO I-15	DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS
11 – 18	I-59 TO I-66	KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS
19 – 24	I-20 TO I-25	DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS
25 – 40	I-26 TO I-40A	WAIKIKI SEGMENT PLAN AND SECTIONS



BRT ROUTE – KEY MAP
NOT TO SCALE



VICINITY MAP

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFN INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

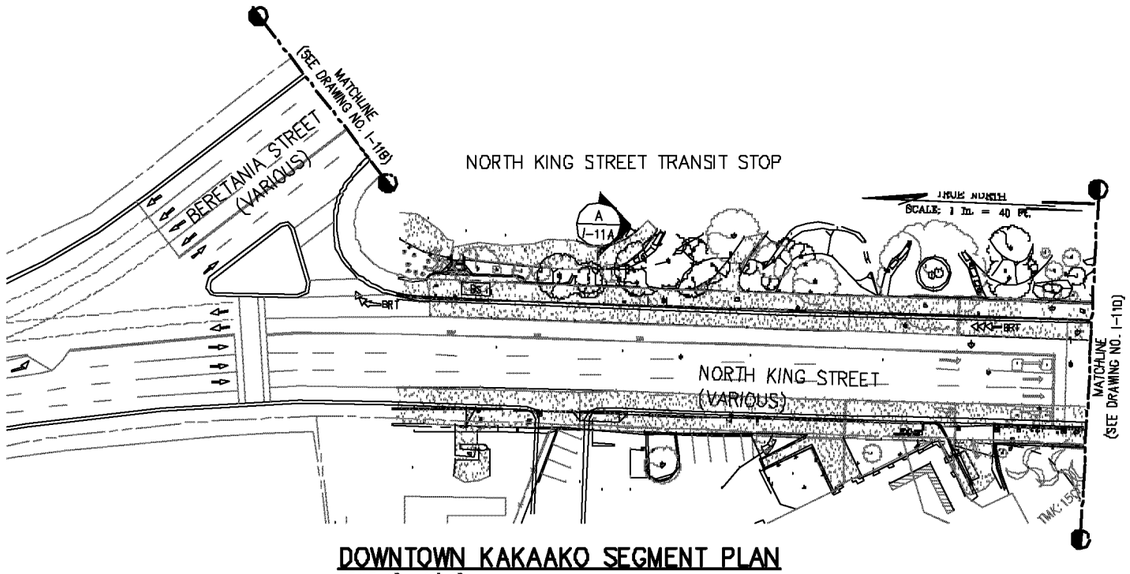
PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: NONE

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT

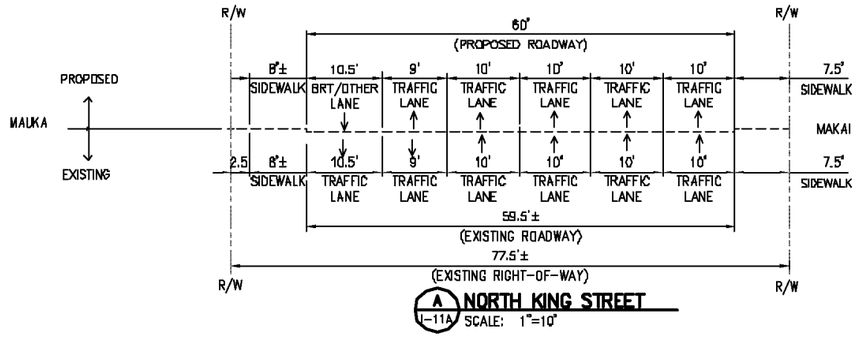
DRAWING NO.
K-1
DATE: 4-11-03 | SHT. NO. 1 OF 40

AR00016414



DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0"



A I-11A NORTH KING STREET
SCALE: 1"=10'

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE ODT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

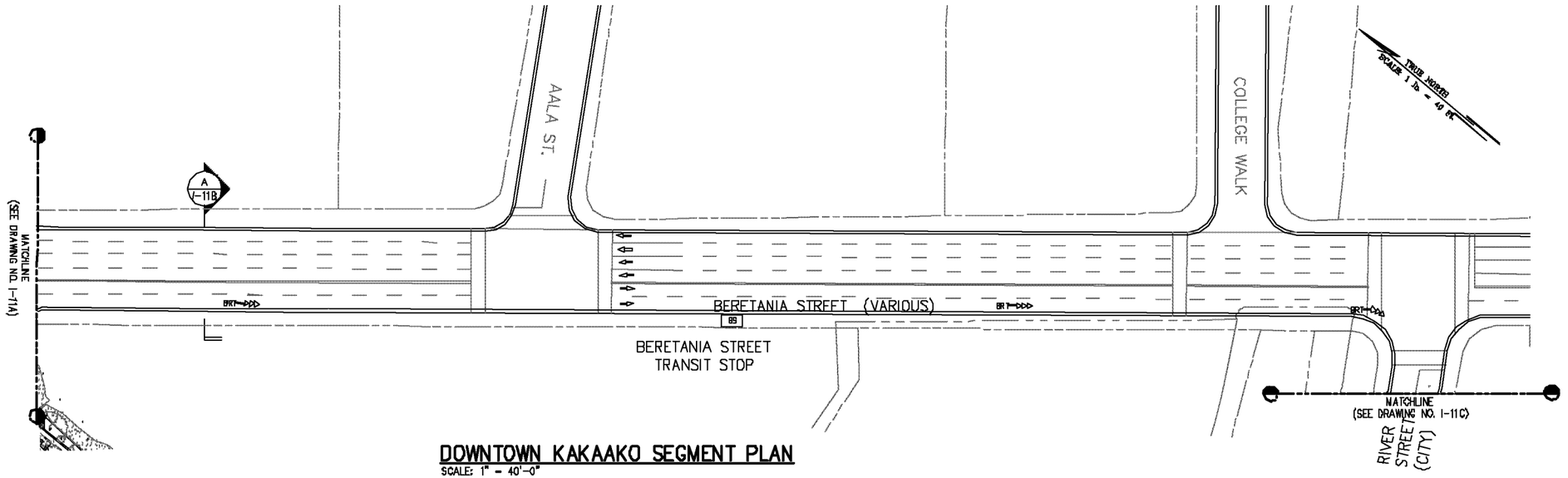
SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

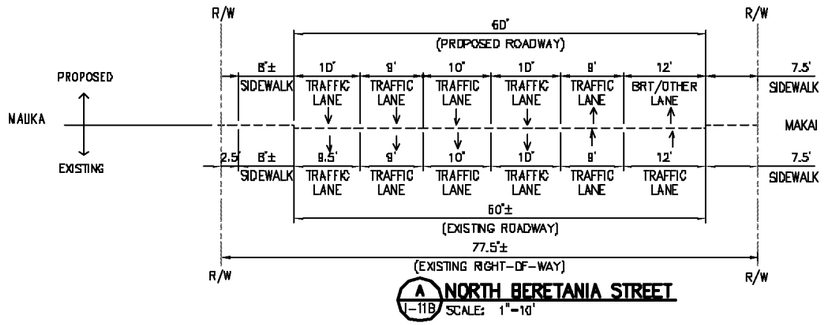
DRAWING NO. I-11A
DATE: 4-11-03 SHT. NO. 2 OF 40

E:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-11 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/25/01 15:15 WGH

AR00016415



DOWNTOWN KAKAAKO SEGMENT PLAN
SCALE: 1" = 40'-0"



A I-11B NORTH BERETANIA STREET
SCALE: 1"=10'

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
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17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT — BRT ROUTE
- ADA CURB RAMP
- BS — BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-11B
DATE: 4-11-03 | SHT. NO. 3 OF 40

E:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-11 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/25/01 15:15 WGH

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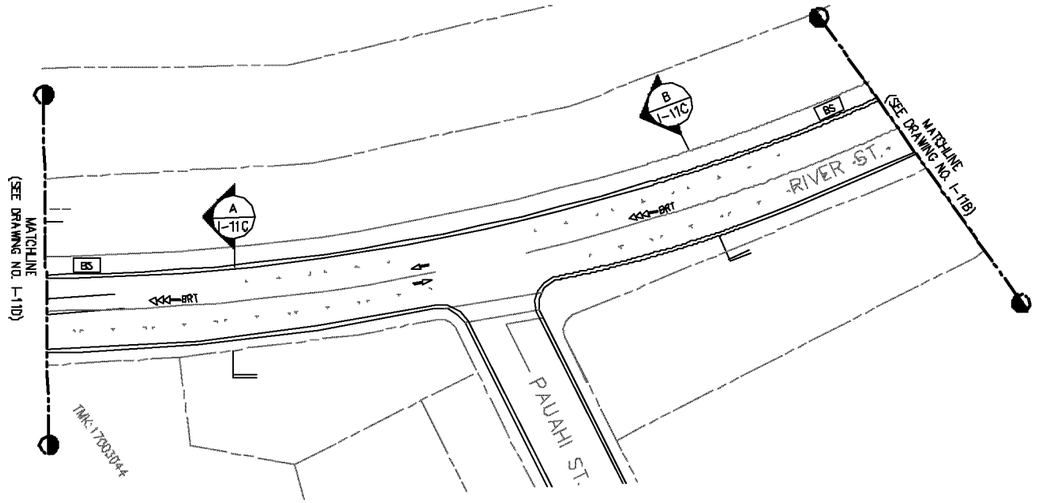
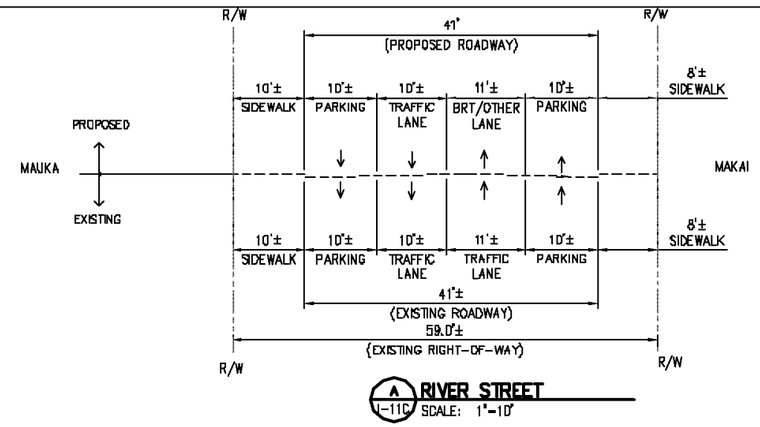
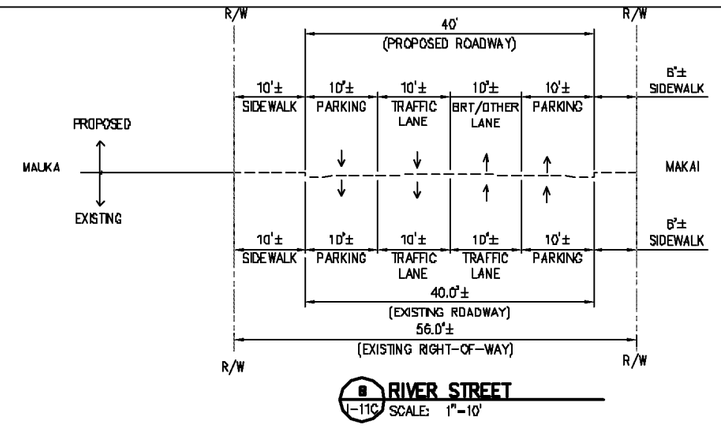


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0"



A I-11C RIVER STREET SCALE: 1"=10'



B I-11C RIVER STREET SCALE: 1"=10'

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LEGEND

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- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT ROUTE
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- EXISTING SIDEWALK
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- PAVEMENT/SLURRY LIMITS
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DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' (40' 20' 0 40' 80')

1" = 10' (10' 5' 0 10' 20')

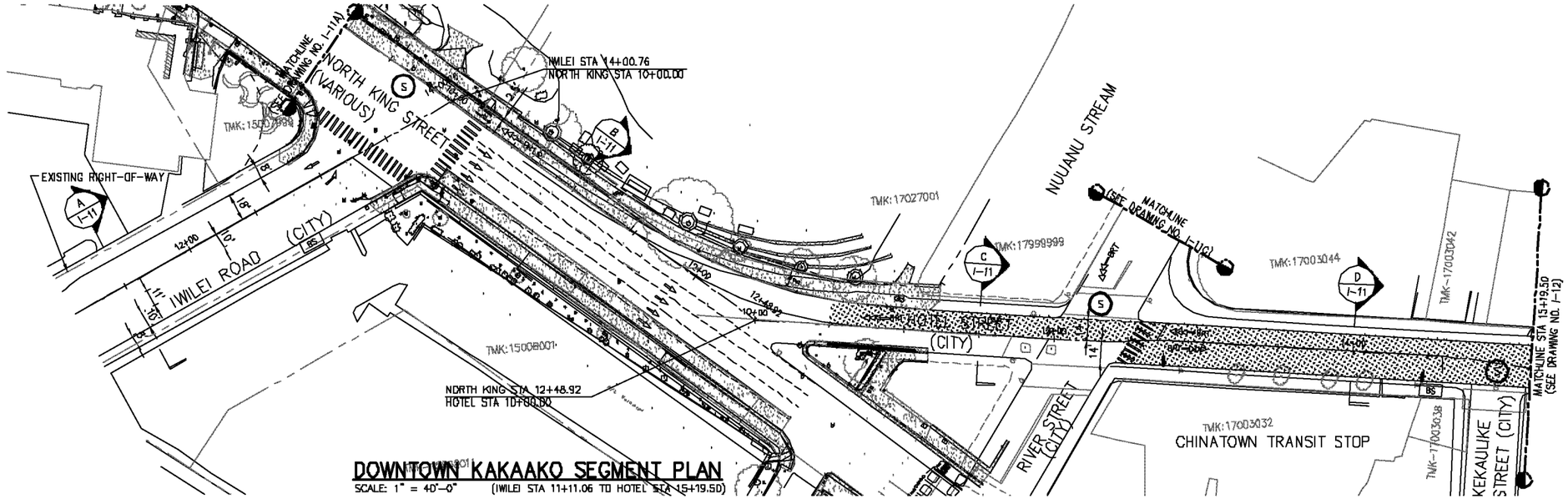
IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-11C

DATE: 4-11-03 | SHT. NO. 4 OF 40

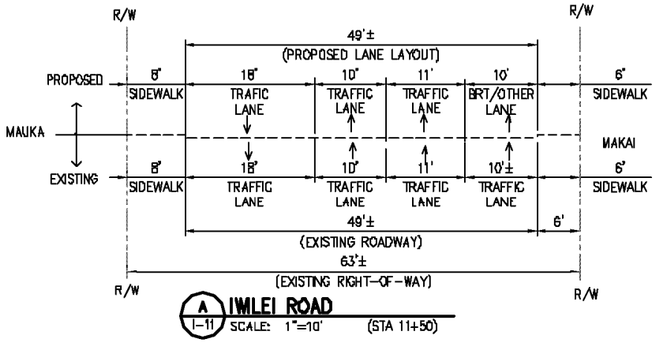
E:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-11 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/26/01 15:15 WGH

AR00016417

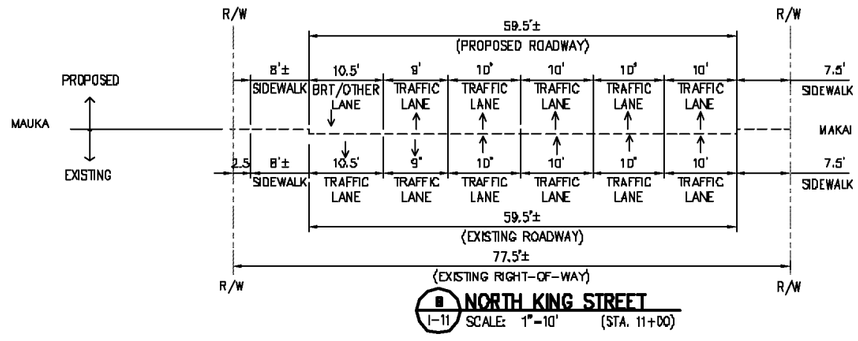


DOWNTOWN KAKAAKO SEGMENT PLAN

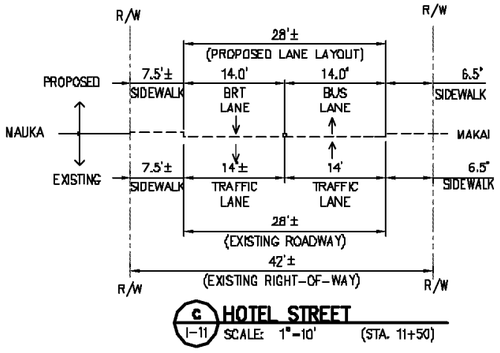
SCALE: 1" = 40'-0" (IWILEI STA 11+11.06 TO HOTEL STA 15+19.50)



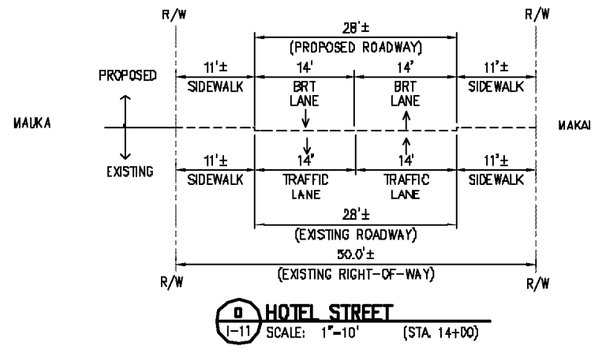
A I-11 IWILEI ROAD
SCALE: 1"=10' (STA 11+50)



B I-11 NORTH KING STREET
SCALE: 1"=10' (STA. 11+00)



C I-11 HOTEL STREET
SCALE: 1"=10' (STA. 11+50)



D I-11 HOTEL STREET
SCALE: 1"=10' (STA. 14+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
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6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

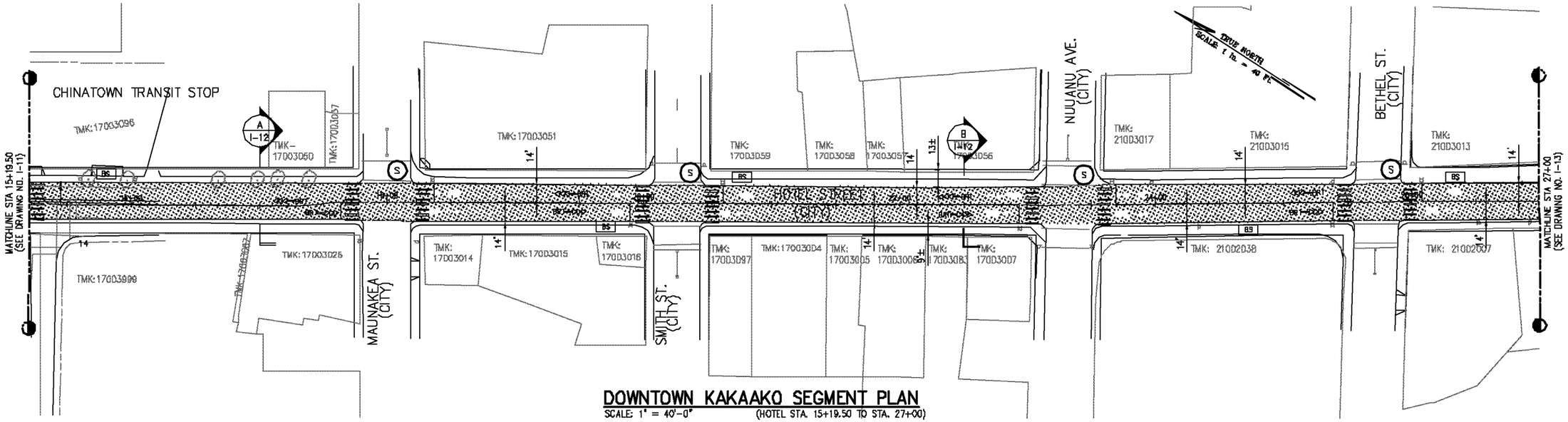
SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-11D
DATE: 4-11-03 SHT. NO. 5 OF 40

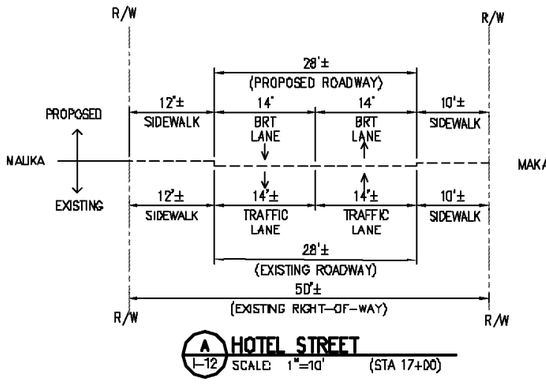
I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-11 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/25/01 15:15 WGH

AR00016418

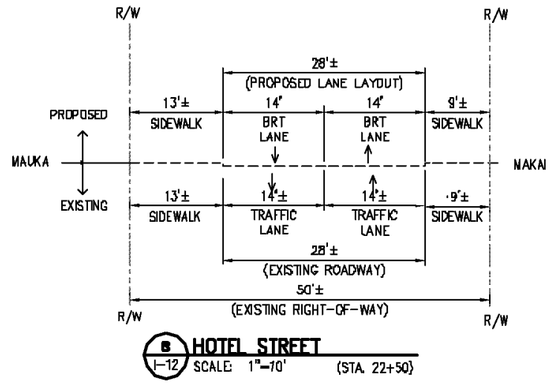


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (HOTEL STA. 15+19.50 TO STA. 27+00)



A HOTEL STREET
I-12 SCALE: 1"=10' (STA 17+00)



B HOTEL STREET
I-12 SCALE: 1"=10' (STA. 22+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (3) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-12

DATE: 4-11-03 SHT. NO. 6 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-12 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/15/01 08:24 DaY

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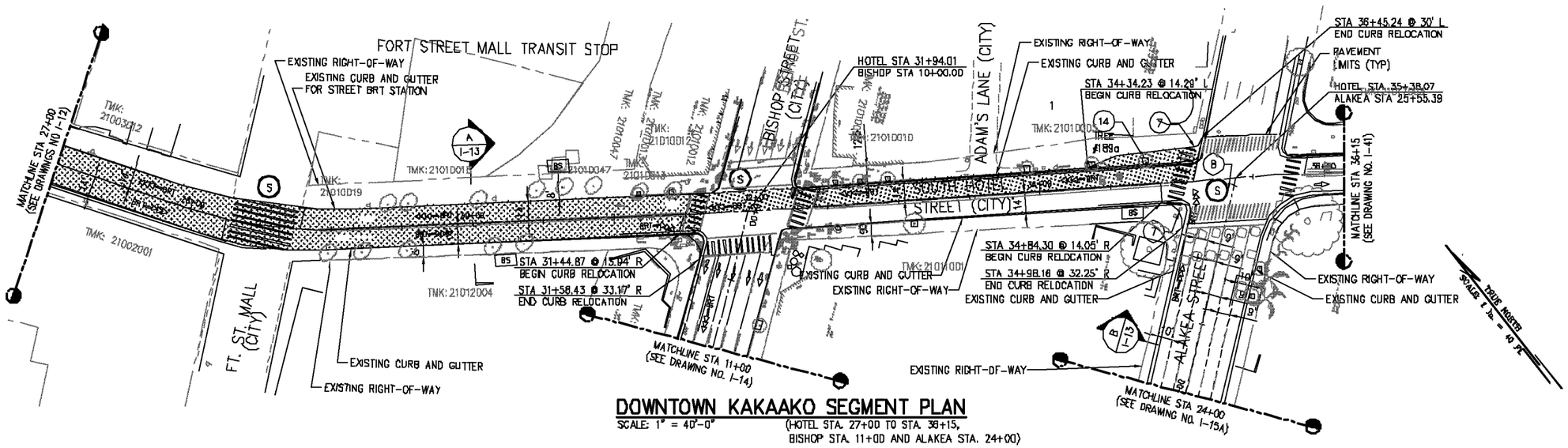
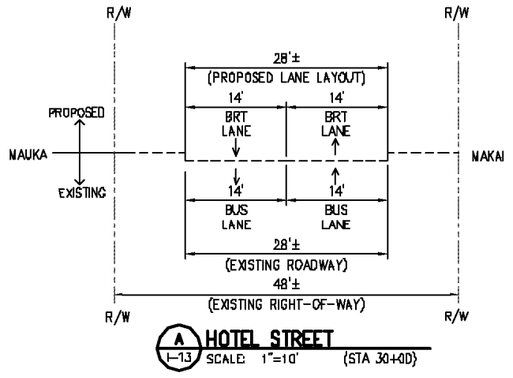
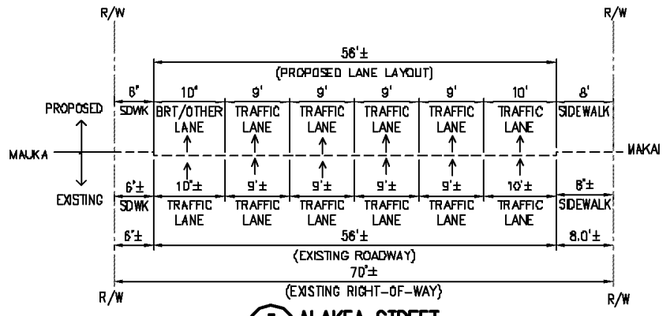


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (HOTEL STA. 27+00 TO STA. 36+15, BISHOP STA. 11+00 AND ALAKEA STA. 24+00)



A I-13 **HOTEL STREET**
SCALE: 1"=10' (STA 30+00)



B I-13 **ALAKEA STREET**
SCALE: 1"=10' (STA 24+25)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE ODT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
8. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-13

DATE: 4-11-03 SHT. NO. 7 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-13 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 10/23/02 14:15 WGH

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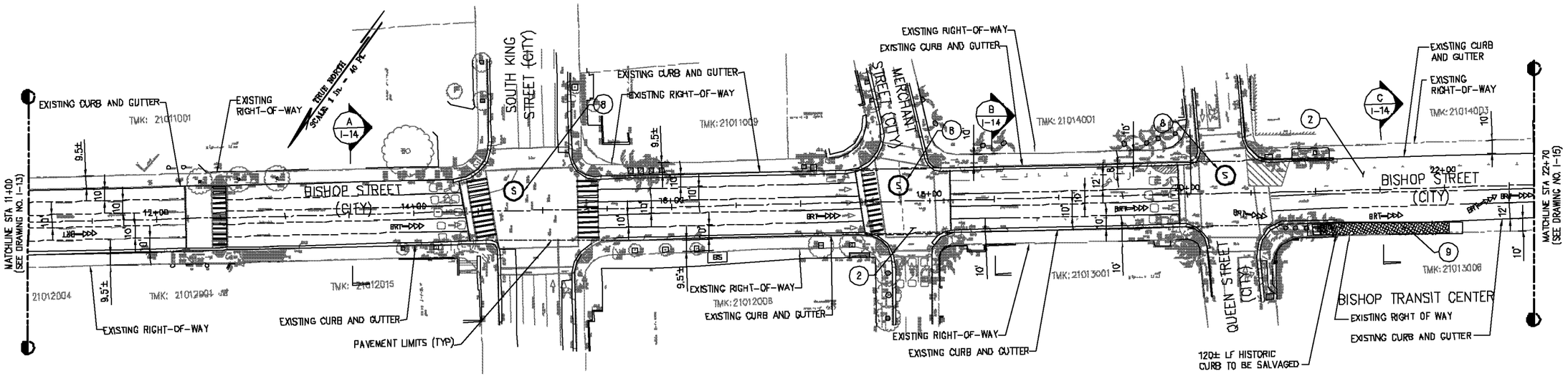
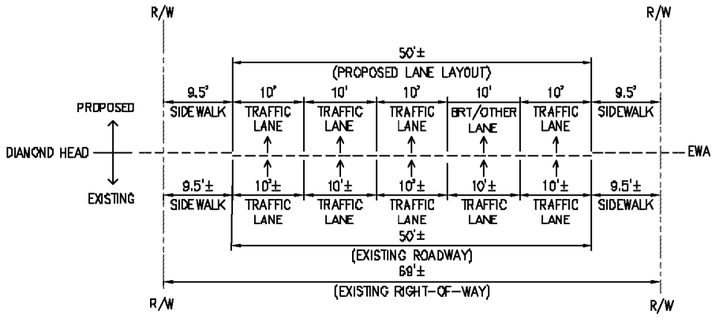
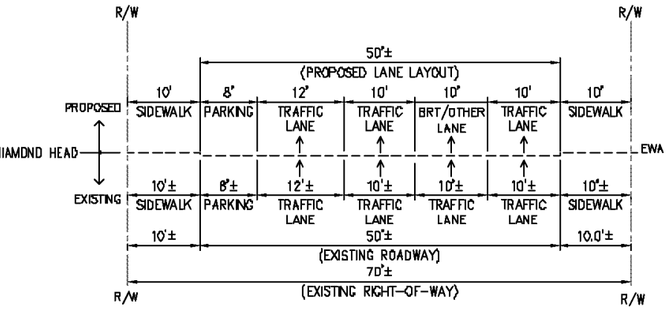


DOWNTOWN KAKAAKO SEGMENT PLAN

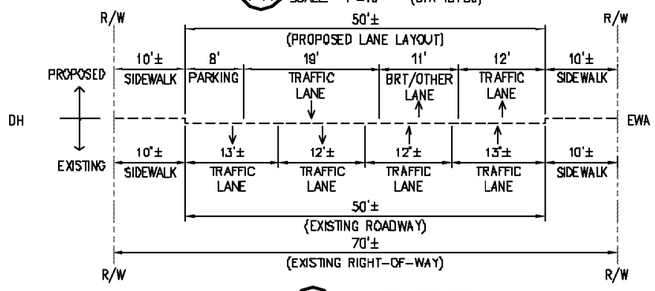
SCALE: 1" = 40'-0" (BISHOP STA. 11+00 TO STA. 22+70)



A I-14 **BISHOP STREET**
SCALE: 1"=10' (STA 13+50)



B I-14 **BISHOP STREET**
SCALE: 1"=10' (STA 18+50)



C I-14 **BISHOP STREET**
SCALE: 1"=10' (STA 21+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE ODT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (3) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-14
DATE: 4-11-03 SHT. NO. 8 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-14 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 05/28/02 11:15 WGH

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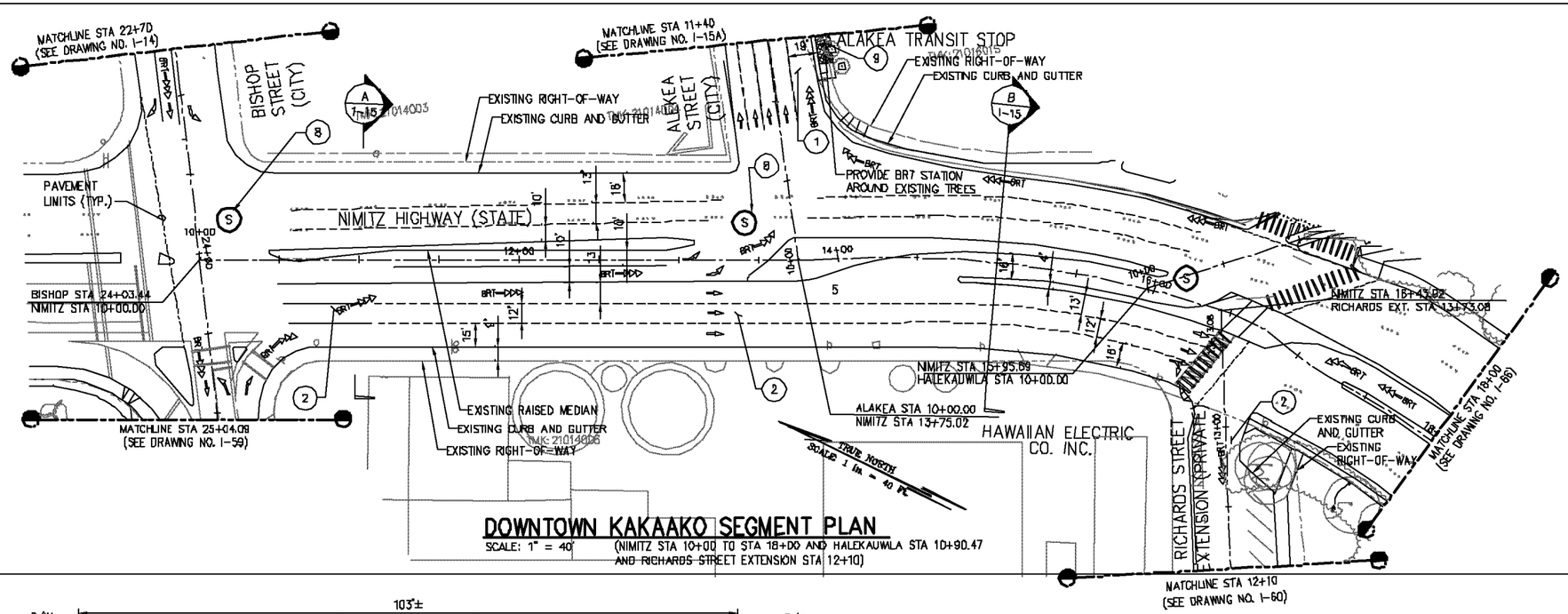
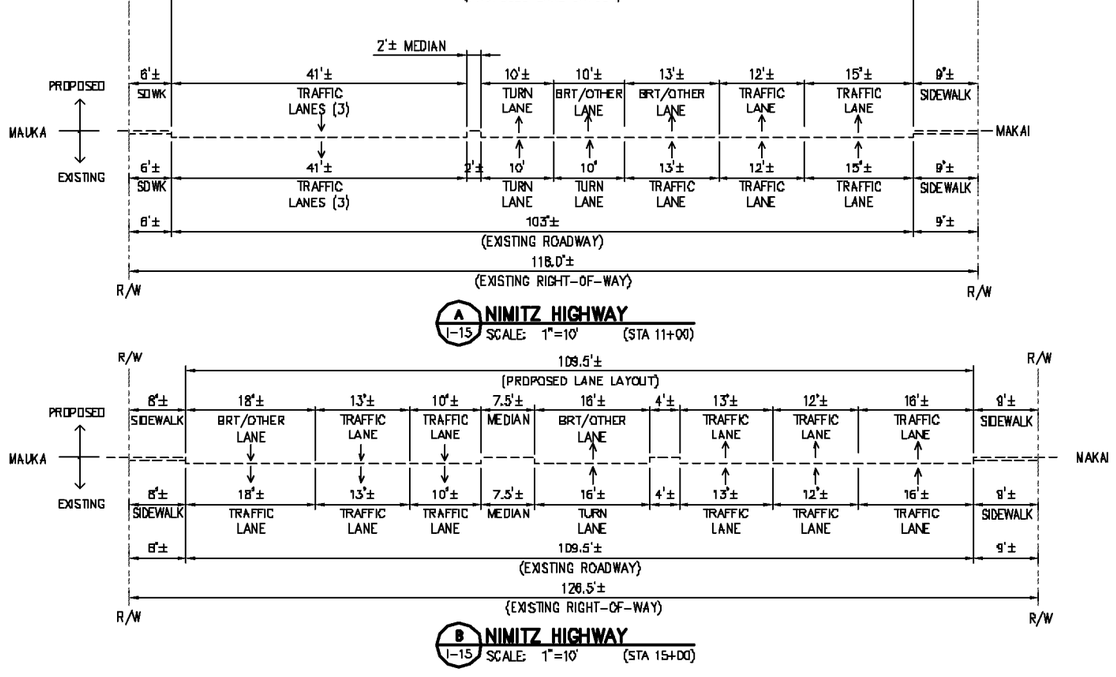


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40' (NIMITZ STA 10+00 TO STA 18+00 AND HALEKAUWILA STA 10+90.47 AND RICHARDS STREET EXTENSION STA 12+10)



CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-15
DATE: 4-11-03 | SHT. NO. 10 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-15 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 05/28/02 13:48 JCH

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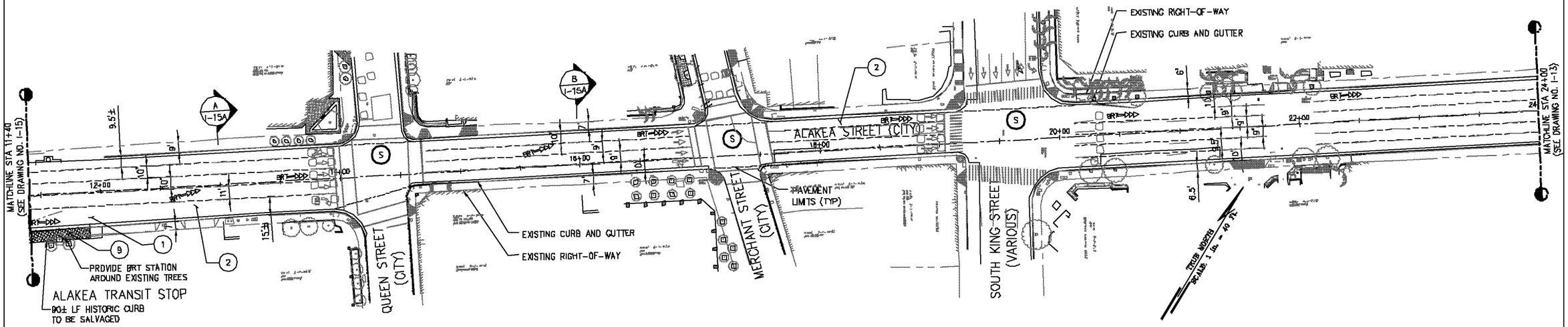
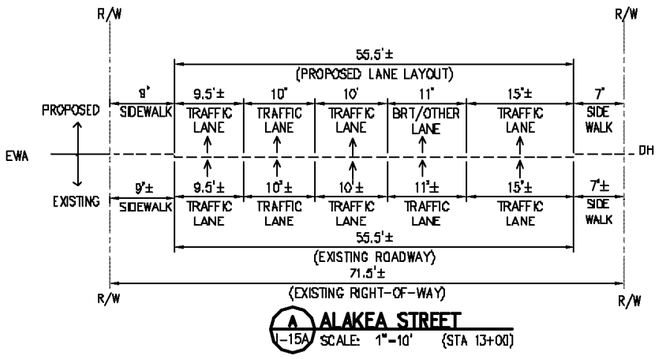
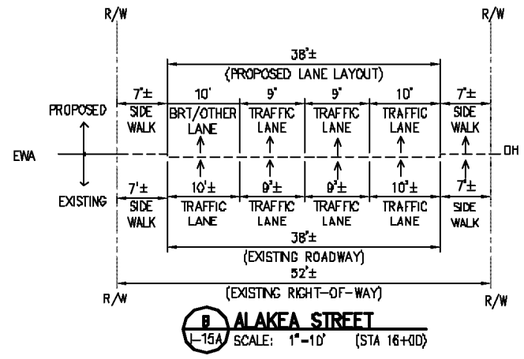


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (ALAKEA STA. 11+40 TO STA. 24+00)



A I-15A **ALAKEA STREET**
SCALE: 1"=10' (STA 13+00)



B I-15A **ALAKEA STREET**
SCALE: 1"=10' (STA 16+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (9) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-15A
DATE: 4-11-03 SHT. NO. 9 OF 40

h:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-15A DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 10/23/02 14:17 WGH

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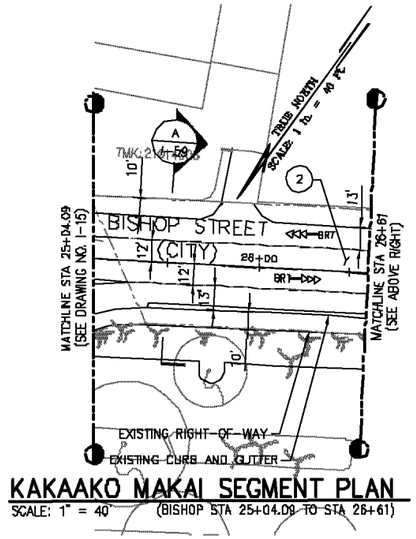
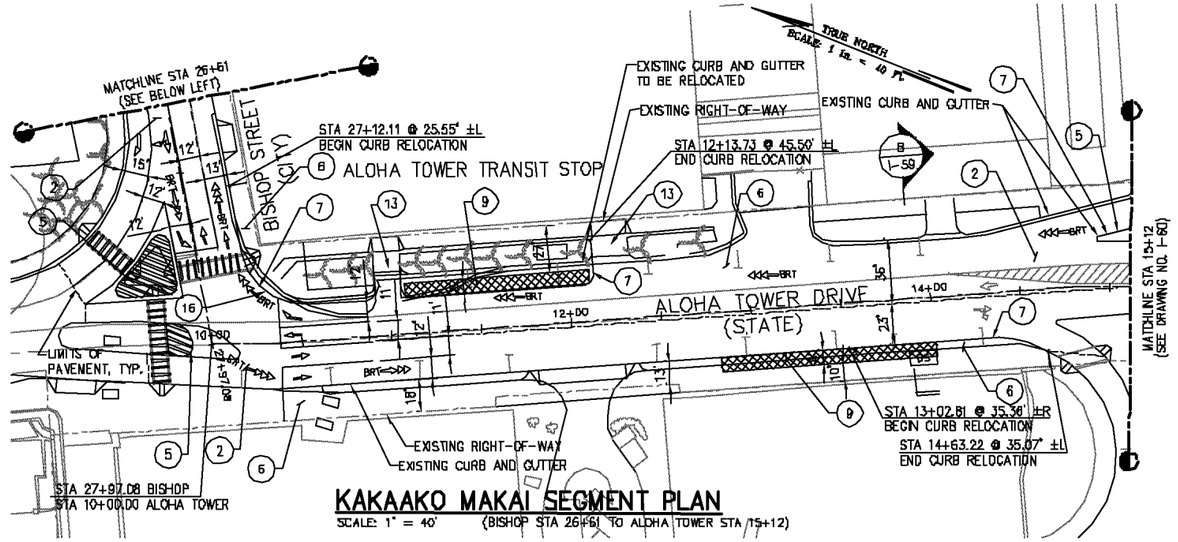


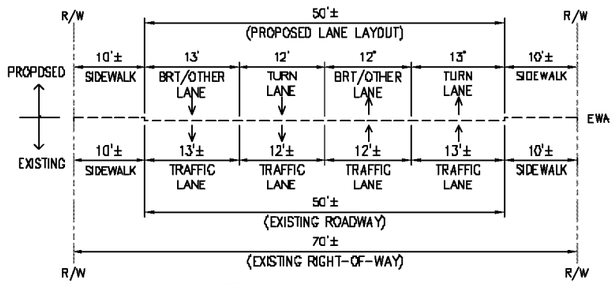
KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (BISHOP STA 25+04.09 TO STA 26+61)

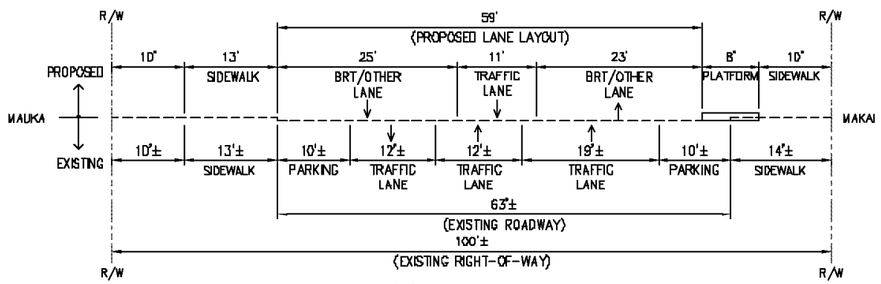


KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (BISHOP STA 26+61 TO ALOHA TOWER STA 15+12)



A I-59 **BISHOP STREET**
SCALE: 1"=10' (STA 25+50)



B I-59 **ALOHA TOWER DRIVE**
SCALE: 1"=10' (STA 13+89)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO.
I-59
DATE: 4-11-03 SHT. NO. 12 OF 40

E:\2000\2000_286.000 BRT\0 DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-59-KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/28/02 13:09 JCH

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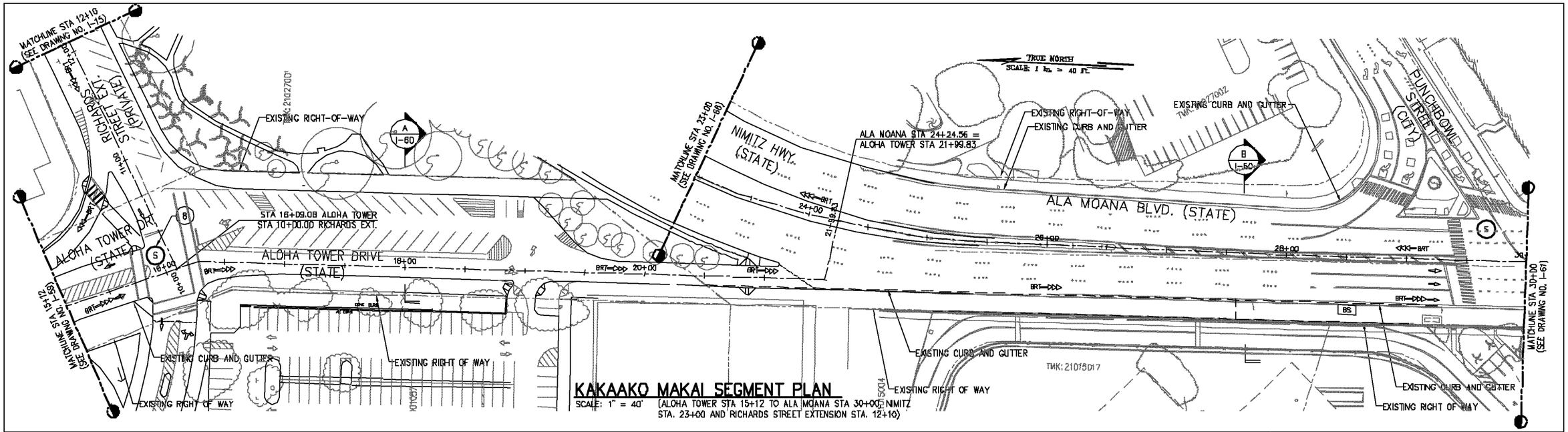
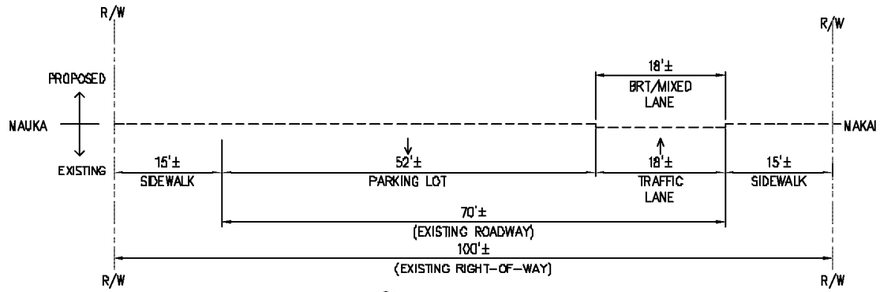
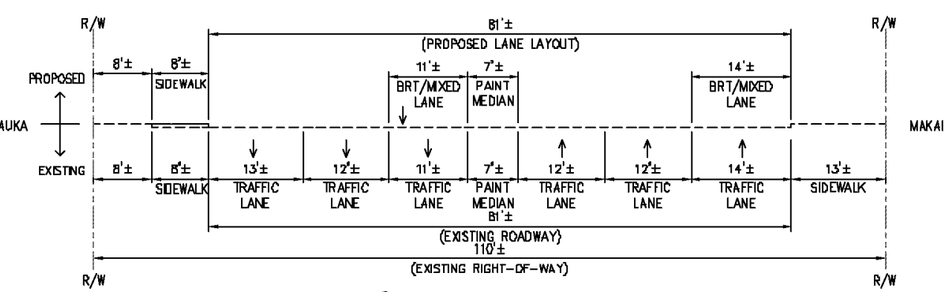


KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (ALOHA TOWER STA 15+12 TO ALA MOANA STA 30+00, NIMITZ STA. 23+00 AND RICHARDS STREET EXTENSION STA. 12+10)



A I-60 **ALOHA TOWER DRIVE**
SCALE: 1"=10' (STA 18+00)



B I-60 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 27+65)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-60
DATE: 4-11-03 SHT. NO. 13 OF 40

t:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-60 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/08/02 21:14 wgh

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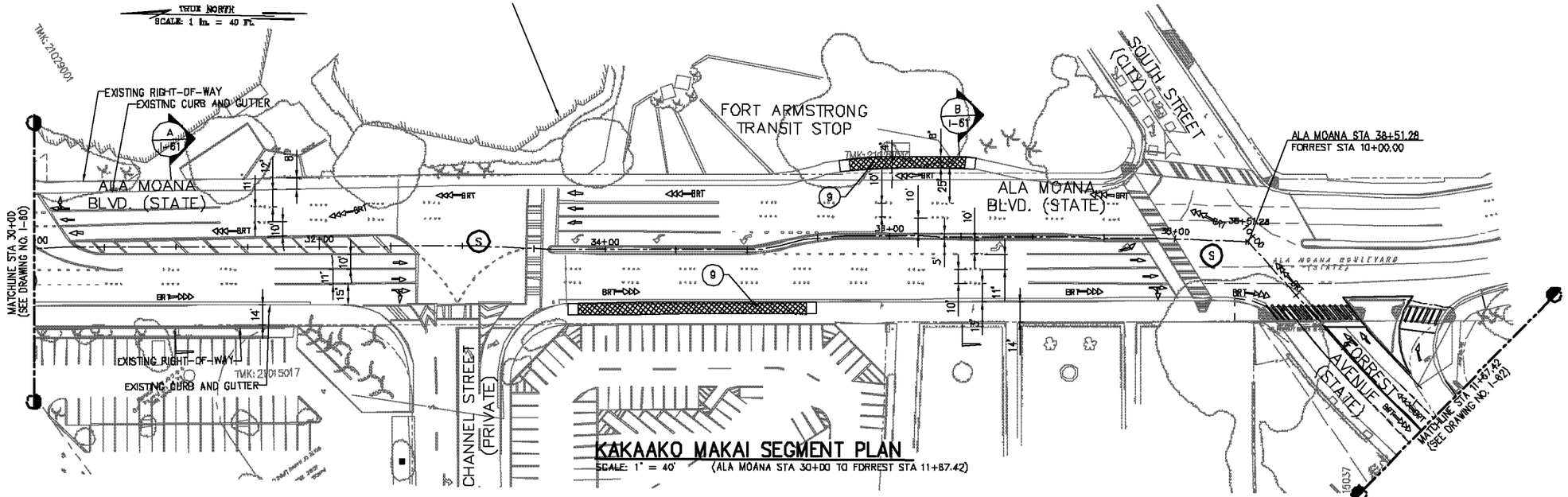
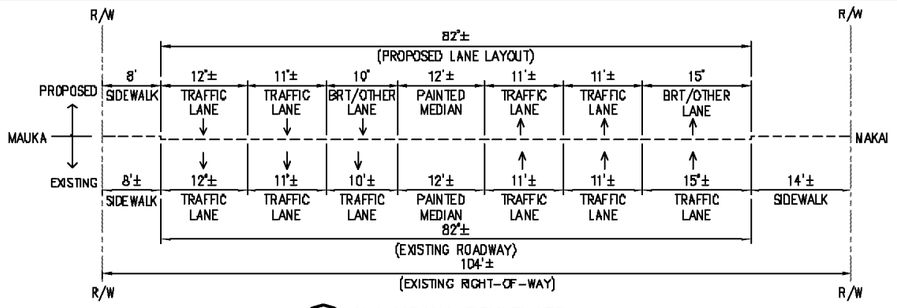
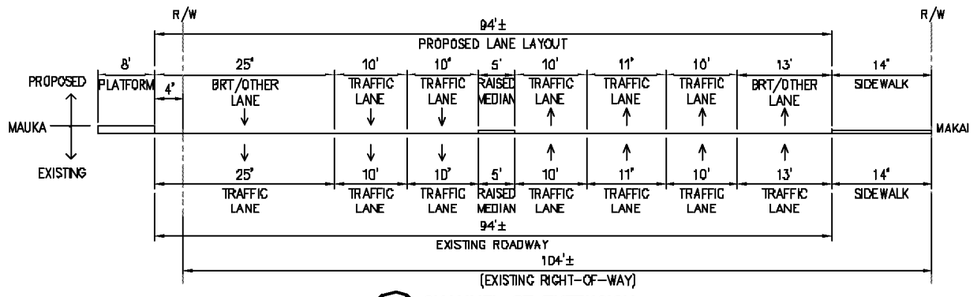




A I-61 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 30+97)



B I-61 **CHANNEL ST EXTENSION**
SCALE: 1"=10' (STA 16+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (9) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- 86 BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-61
DATE: 4-11-03 SHT. NO. 14 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-61 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 07/08/02 20:17 WGH

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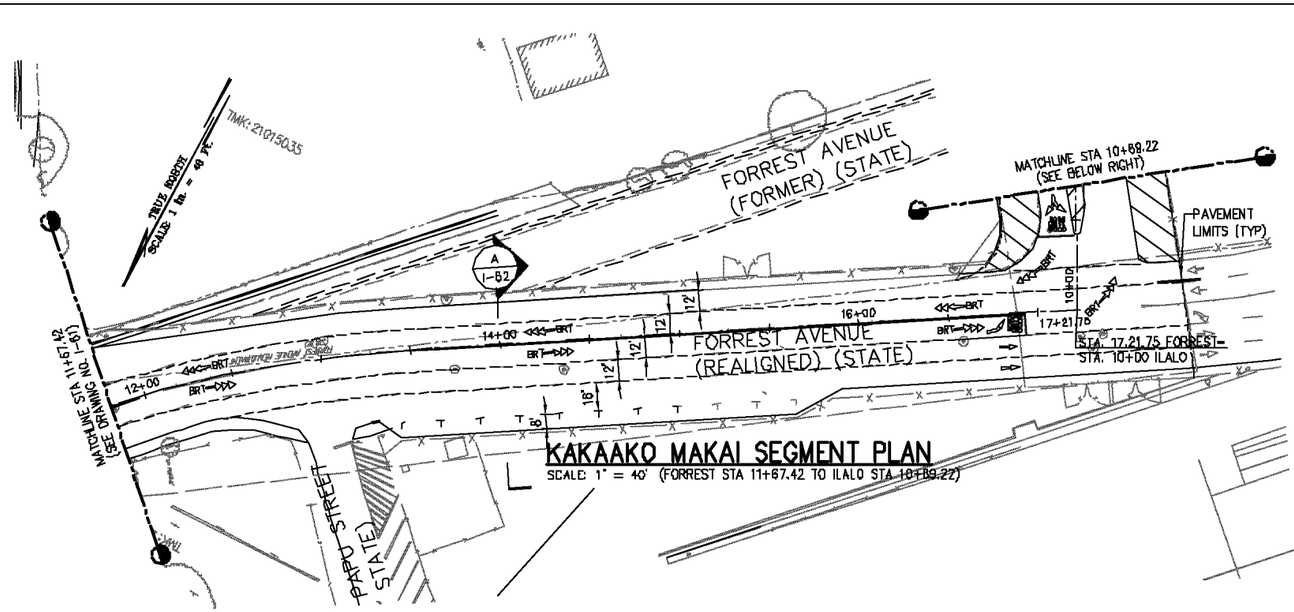
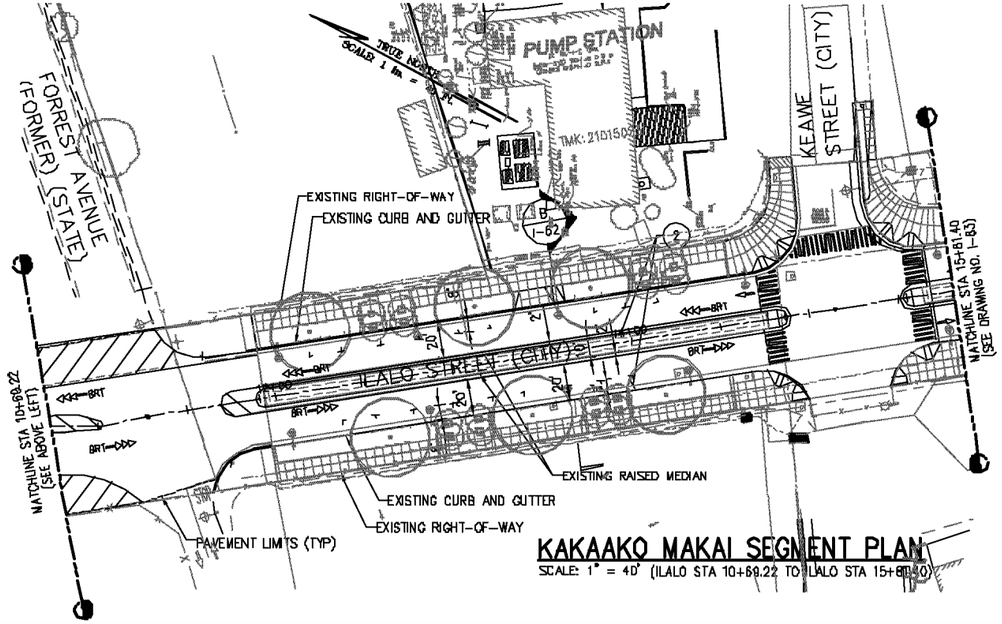


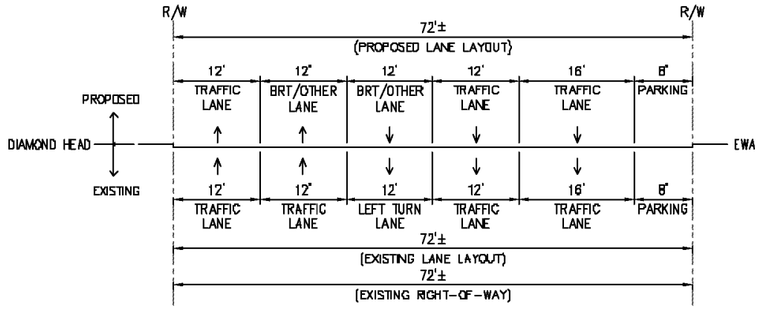
KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (FORREST STA 11+67.42 TO ILALO STA 10+89.22)



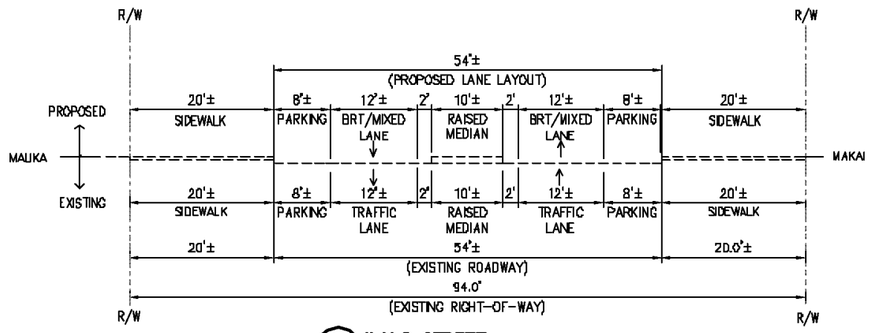
KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (ILALO STA 10+89.22 TO ILALO STA 15+61.40)



A I-62 FORREST AVENUE (REALIGNMENT)

SCALE: 1"=10' (STA 14+00)



B I-62 ILALO STREET

SCALE: 1"=10' (STA 13+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE ODT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-62
DATE: 4-11-03 SHT. NO. 15 OF 40

E:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-62 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/24/02 08:53 JCH

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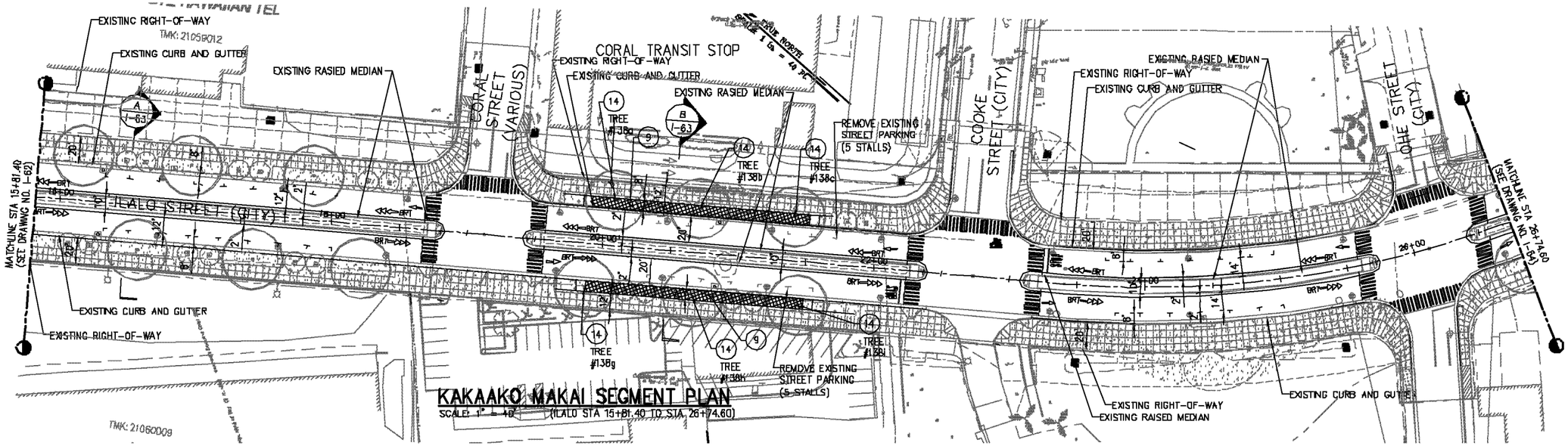
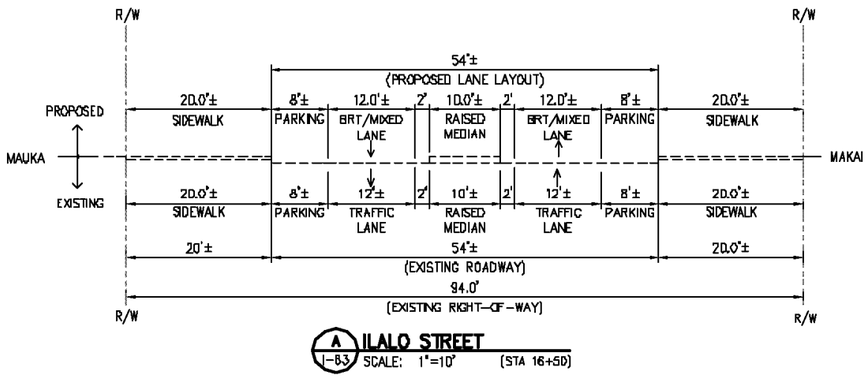
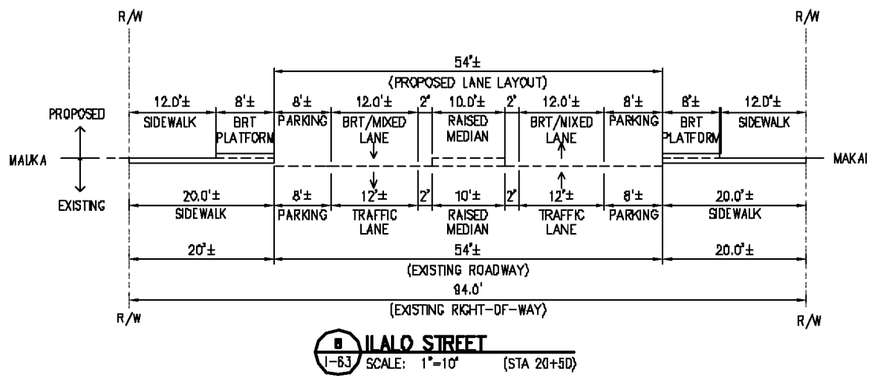




A I-63 ILALO STREET
SCALE: 1"=10' (STA 16+50)



B I-63 ILALO STREET
SCALE: 1"=10' (STA 20+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO.
I-63
DATE: 4-11-03 SHT. NO. 16 OF 40

E:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-63 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/20/02 11:47 JCH

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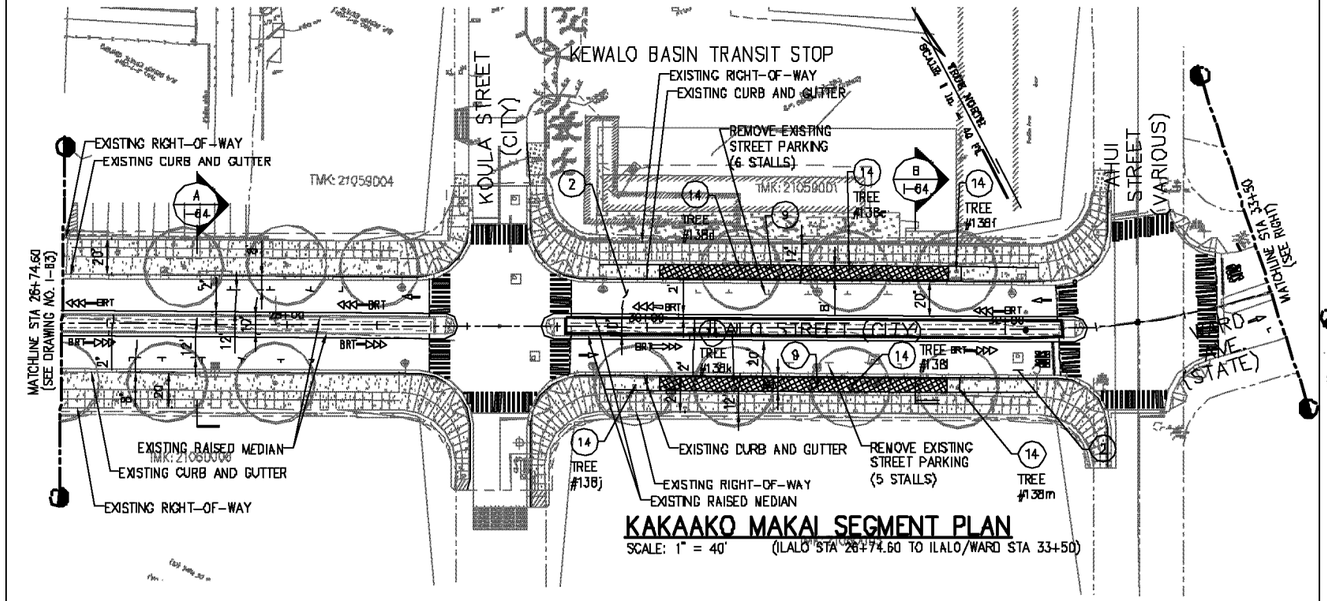

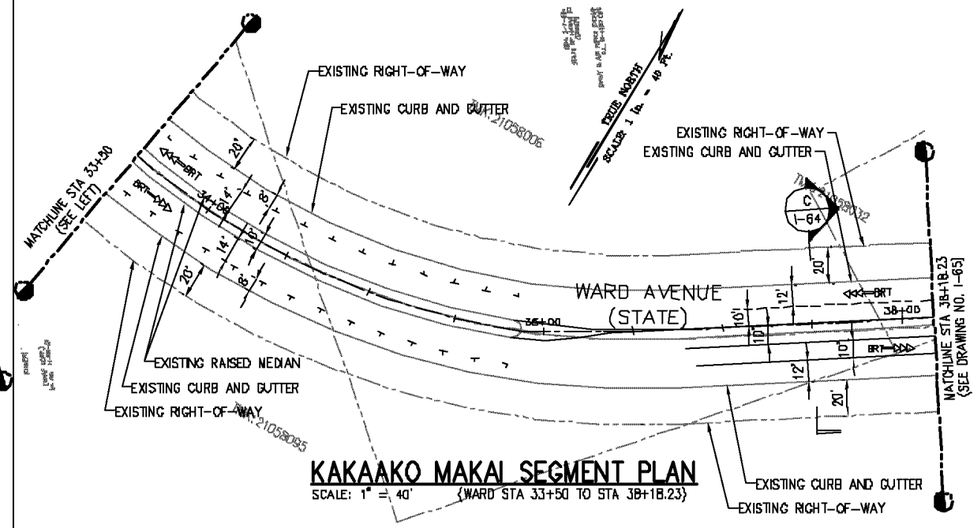

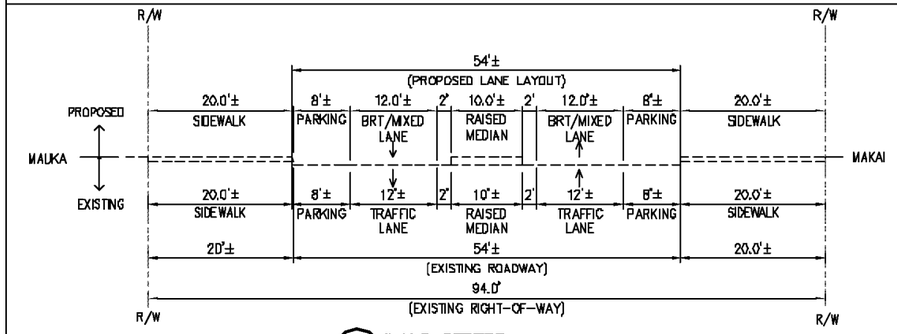

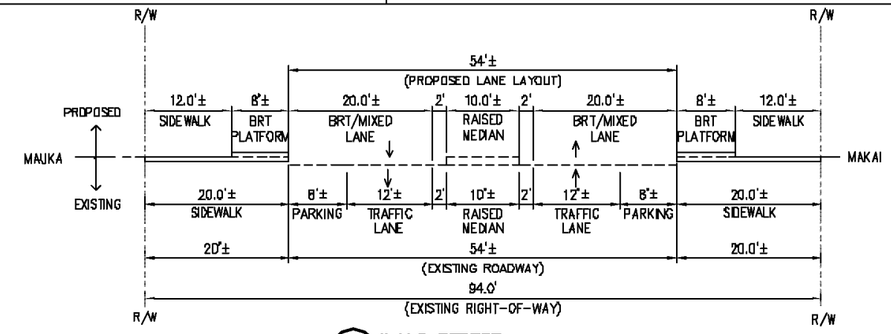

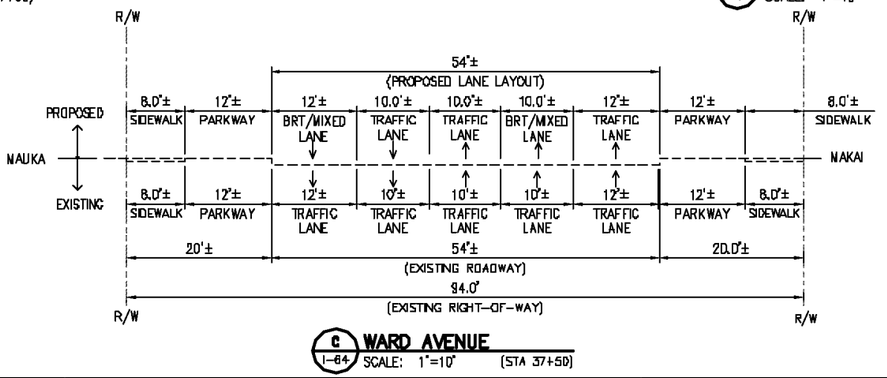

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (3) SIGNALIZED INTERSECTION
- BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-64

DATE: 4-11-13 SHT. NO. 17 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-64 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/20/12 11:47 JCH

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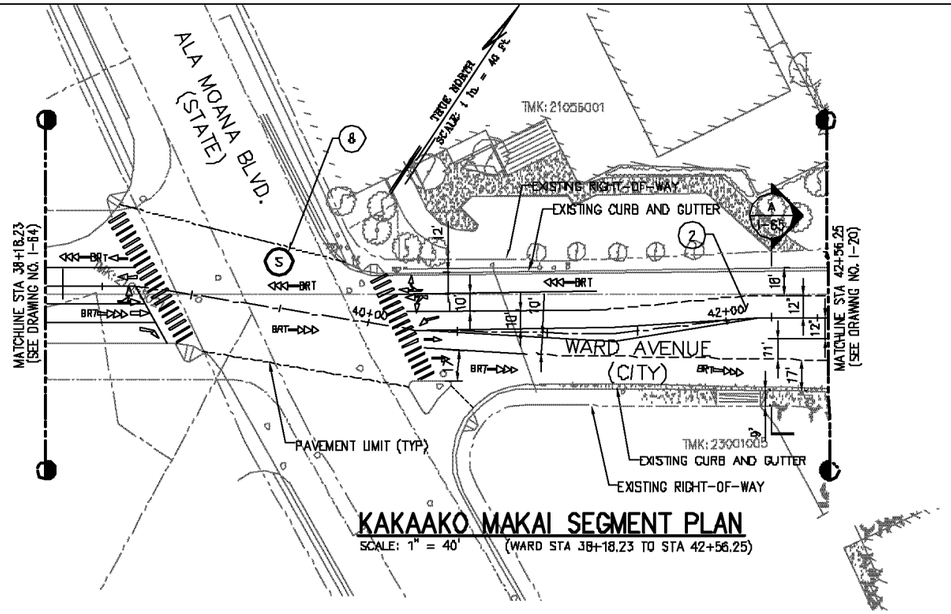
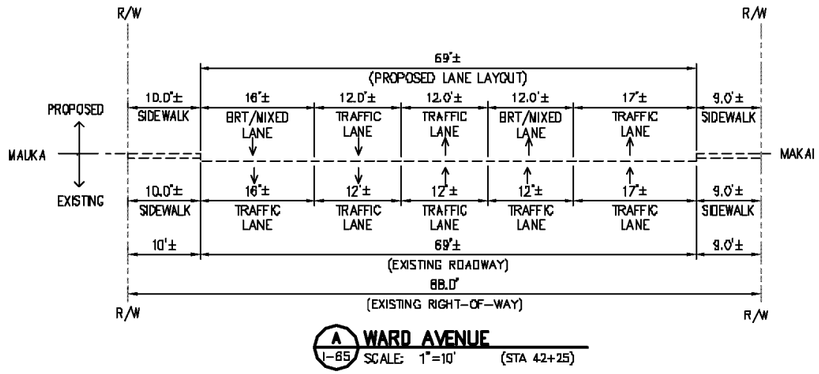


KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (WARD STA 38+18.23 TO STA 42+56.25)



A I-65 **WARD AVENUE**
SCALE: 1"=10' (STA 42+25)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-65

DATE: 4-11-03 SHT. NO. 18 OF 40

E:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-65-KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/20/02 11:57 JCH

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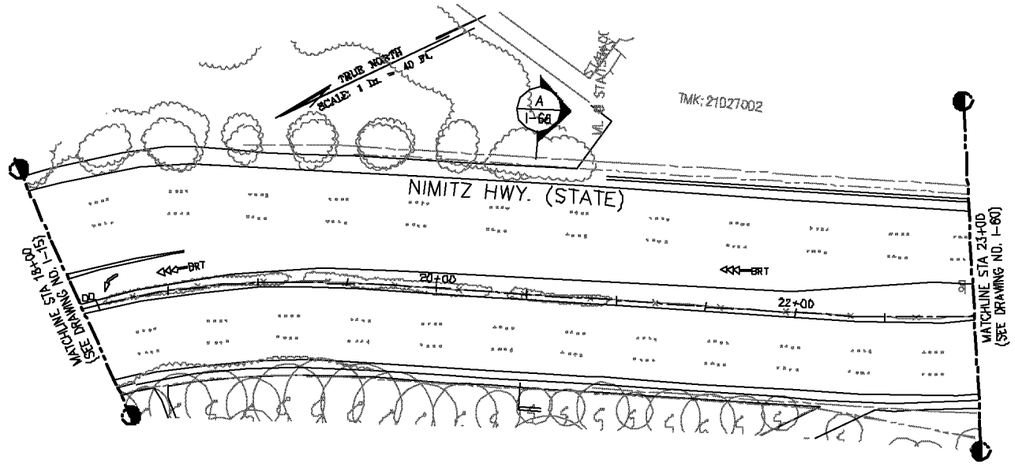
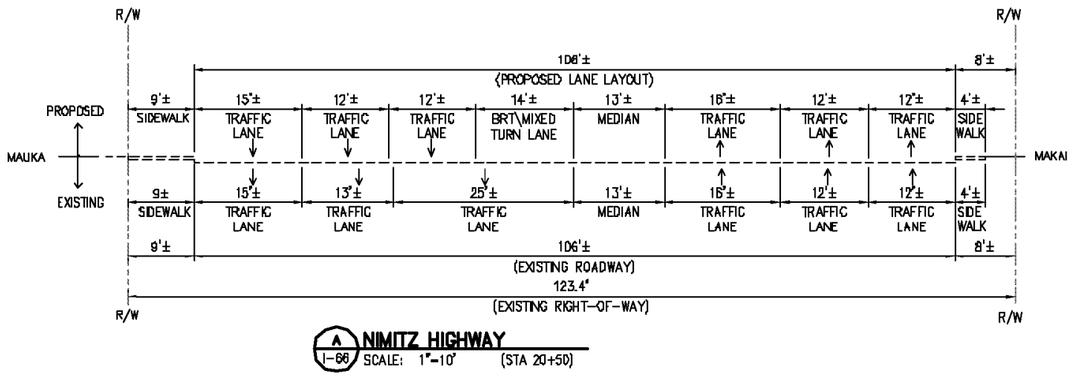


KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40'-0" (NIMITZ HWY. STA 18+00 TO 23+00)



A I-66 **NIMITZ HIGHWAY**
SCALE: 1"=10' (STA 20+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (3) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-66
DATE: 4-11-03 SHT. NO. 11 OF 40

E:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-66 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/08/02 21:21 wgh

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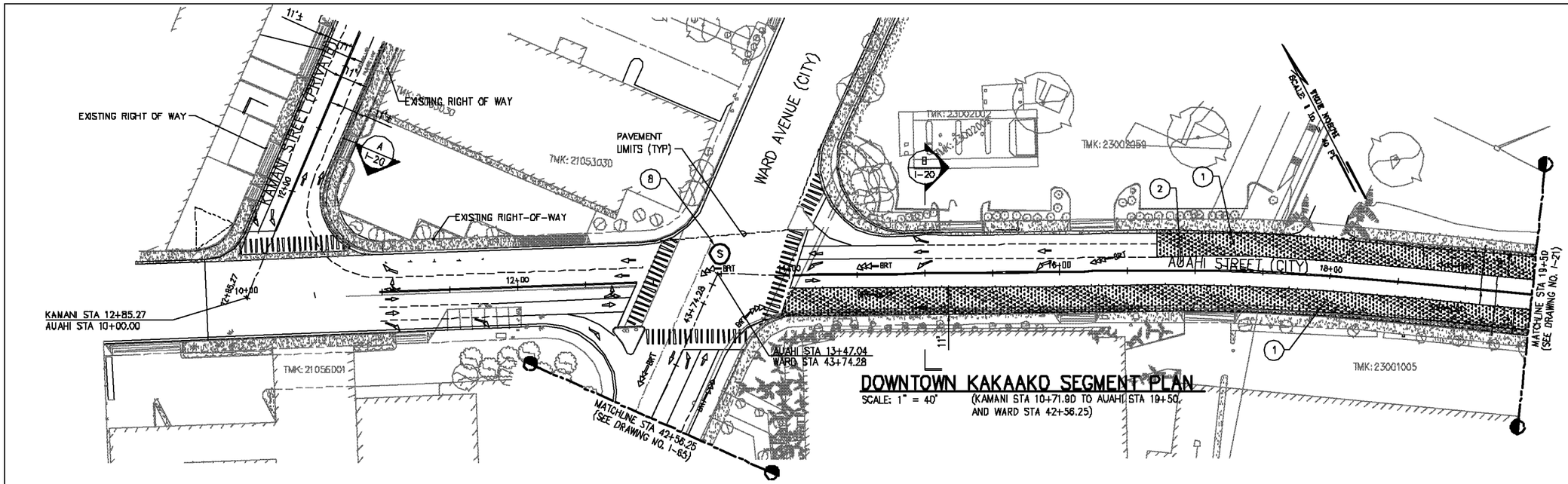
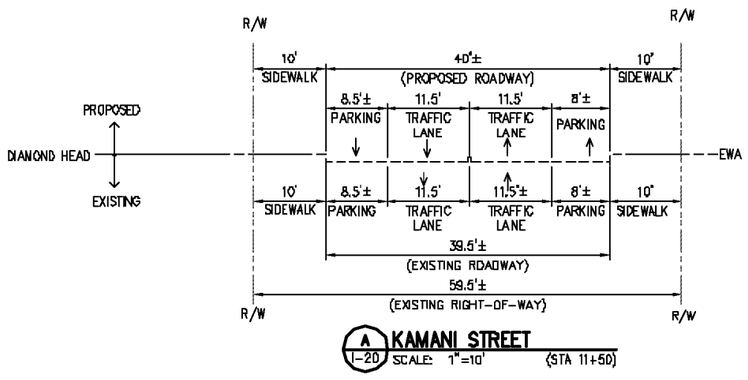
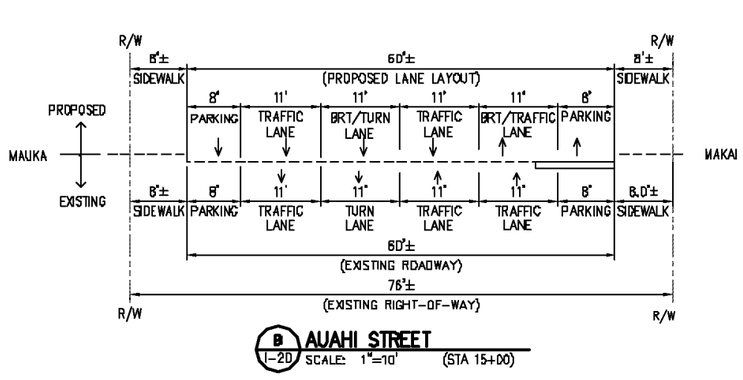


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40' (KAMANI STA 10+71.90 TO AUAHI STA 19+50, AND WARD STA 42+56.25)



A I-20 **KAMANI STREET**
SCALE: 1"=10' (STA 11+50)



B I-20 **AUAHI STREET**
SCALE: 1"=10' (STA 15+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
8. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-20
DATE: 4-11-03 SHT. NO. 19 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-20 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 05/28/02 09:13 JCH

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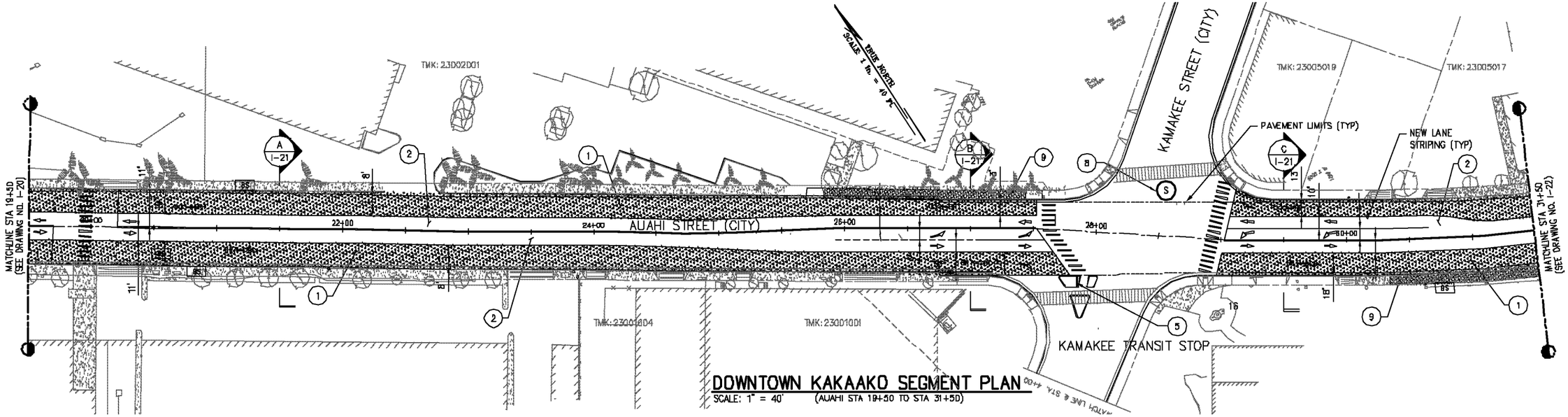
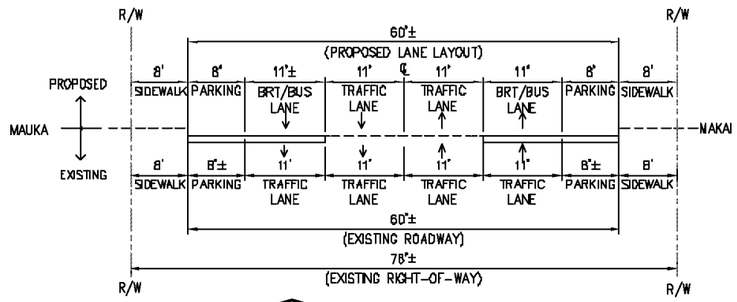
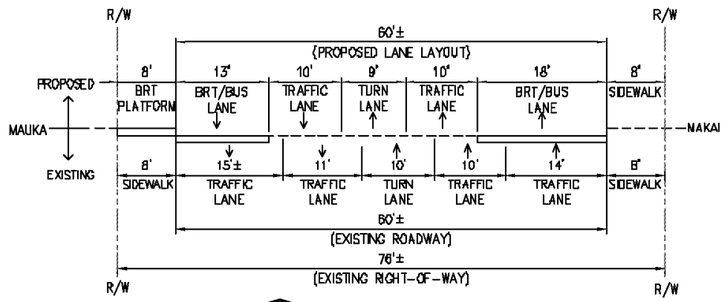


DOWNTOWN KAKAAKO SEGMENT PLAN

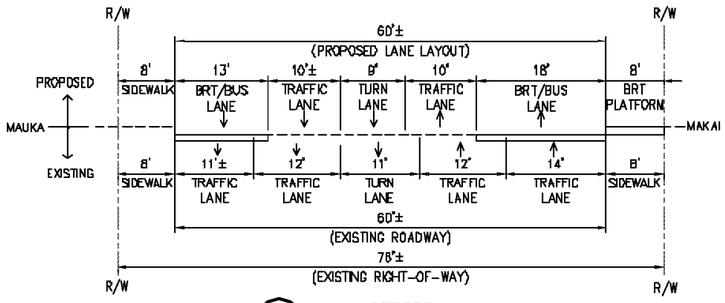
SCALE: 1" = 40' (AUAHI STA 19+50 TO STA 31+50)



A I-21 AUAHI STREET
SCALE: 1"=10' (STA 21+50)



B I-21 AUAHI STREET
SCALE: 1"=10' (STA 27+00)



C I-21 AUAHI STREET
SCALE: 1"=10' (STA 29+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (9) SIGNALIZED INTERSECTION
- BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

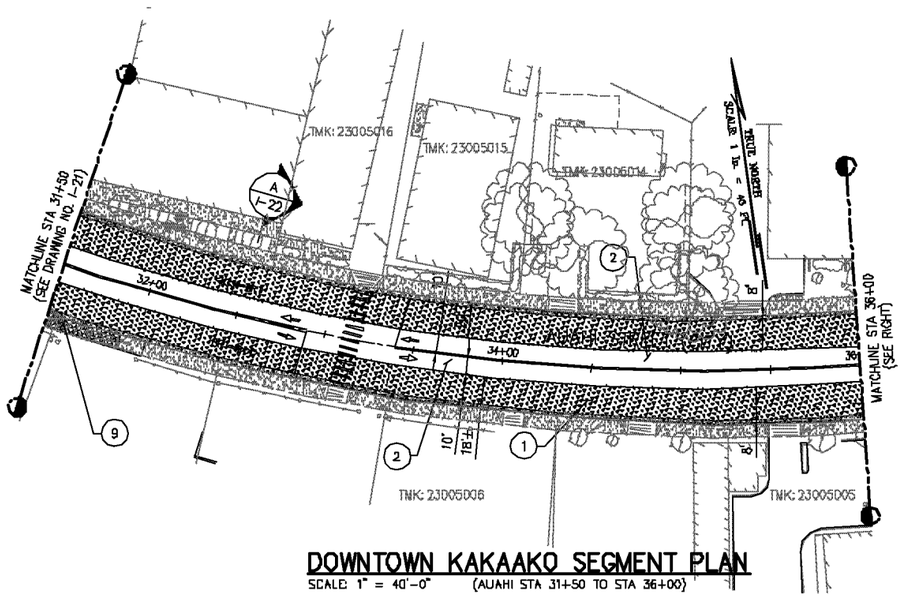
SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-21
DATE: 4-11-03 SHT. NO. 20 OF 40

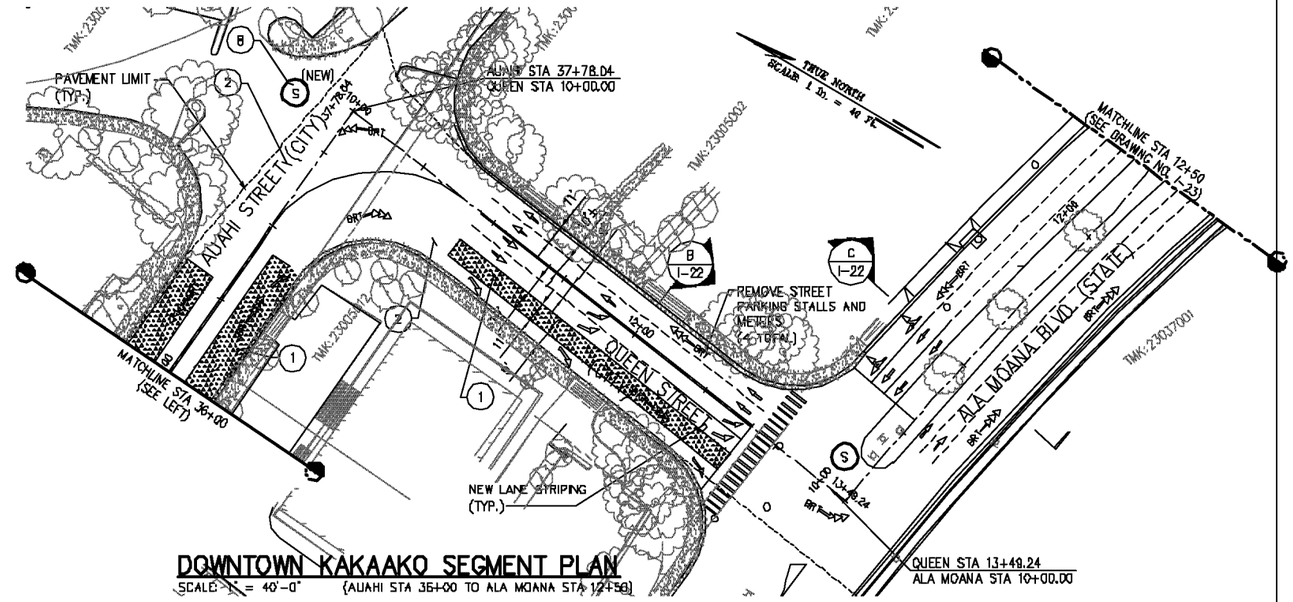
t:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\DGN I-21 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/13/01 20:01 DaY

AR00016433



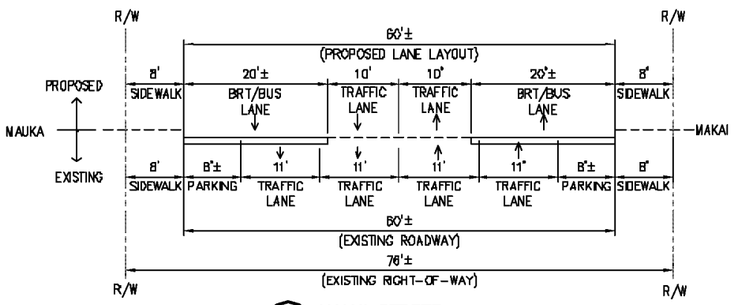
DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (AUAHI STA 31+50 TO STA 36+00)

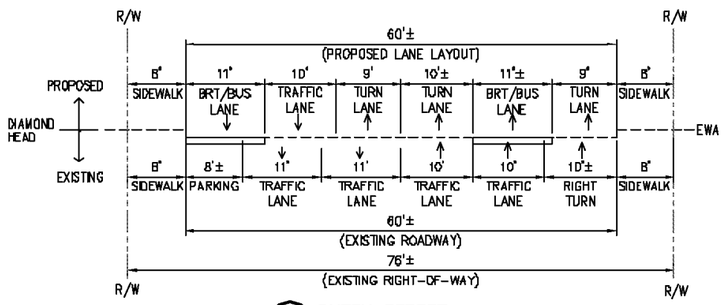


DOWNTOWN KAKAAKO SEGMENT PLAN

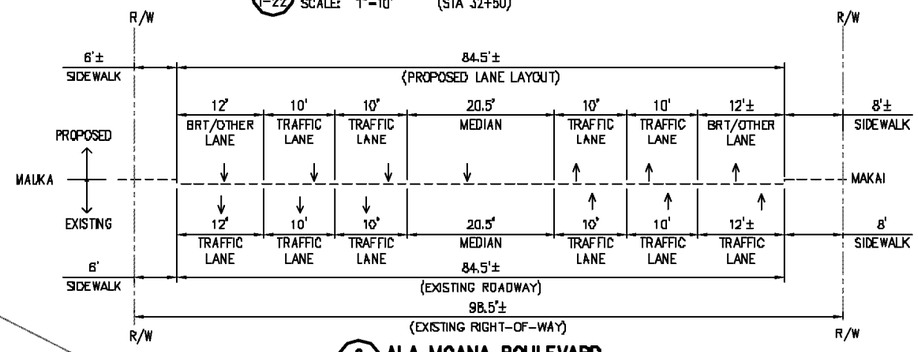
SCALE: 1" = 40'-0" (AUAHI STA 36+00 TO ALA MOANA STA 124+50)



A I-22 **AUAHI STREET** SCALE: 1"=10' (STA 32+50)



B I-22 **QUEEN STREET** SCALE: 1"=10' (STA 12+00)



C I-22 **ALA MOANA BOULEVARD** SCALE: 1"=10' (STA 11+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (3) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-22

DATE: 4-11-03 SHT. NO. 21 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-22 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 05/28/03 09:18 JCH

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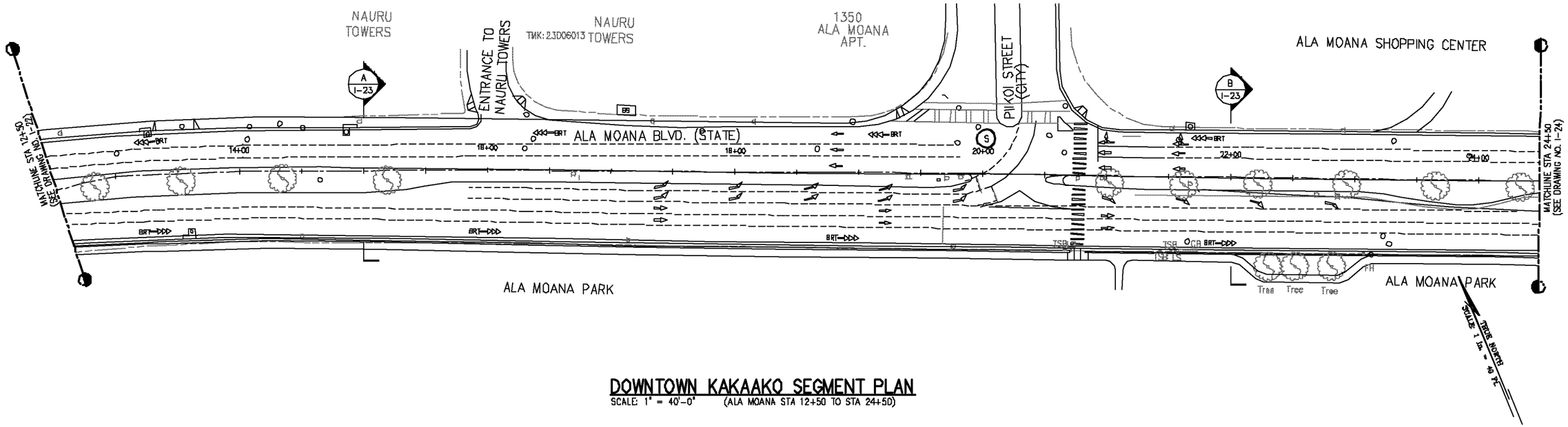
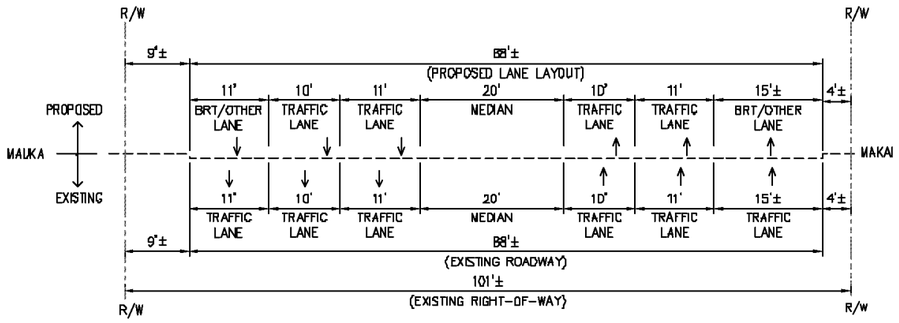
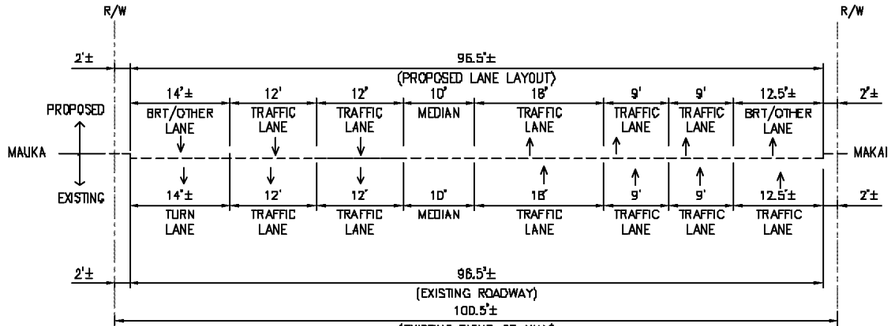


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (ALA MOANA STA 12+50 TO STA 24+50)



A I-23 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 15+00)



B I-23 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 22+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-23
DATE: 4-11-03 SHT. NO. 22 OF 40

E:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-23 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 07/08/02 09:46 wgh

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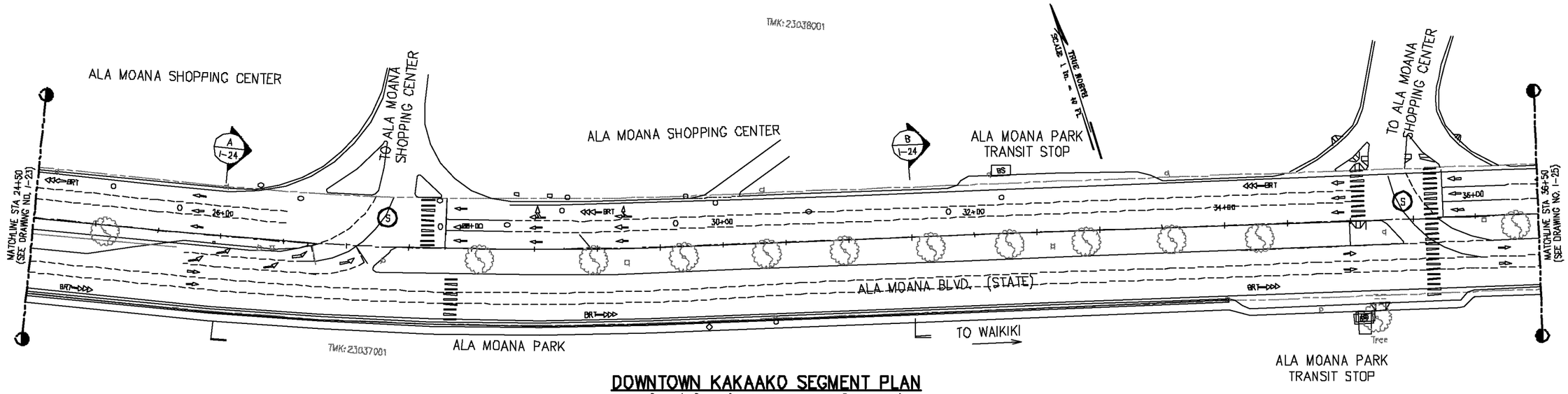
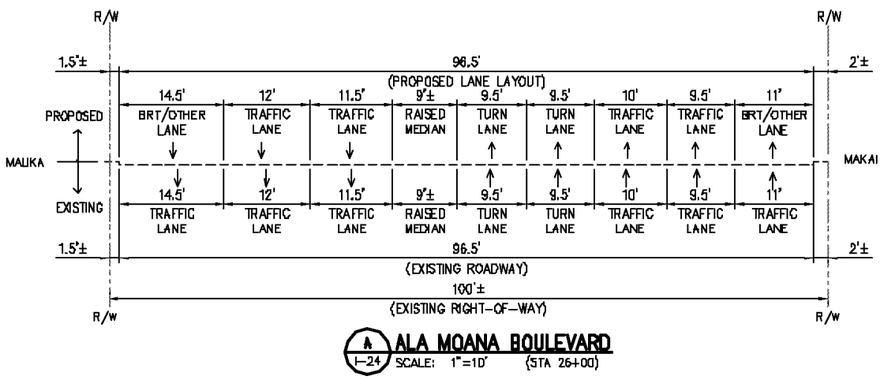
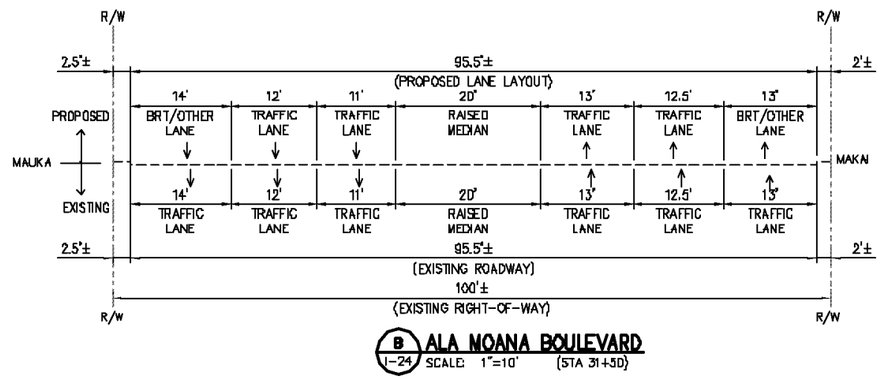


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (ALA MOANA STA 24+50 TO STA 36+50)



A I-24 ALA MOANA BOULEVARD
SCALE: 1"=10' (STA 26+00)



B I-24 ALA MOANA BOULEVARD
SCALE: 1"=10' (STA 31+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
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8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-24
DATE: 4-11-03 SHT. NO. 23 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-24 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 07/08/02 09:47 wgh

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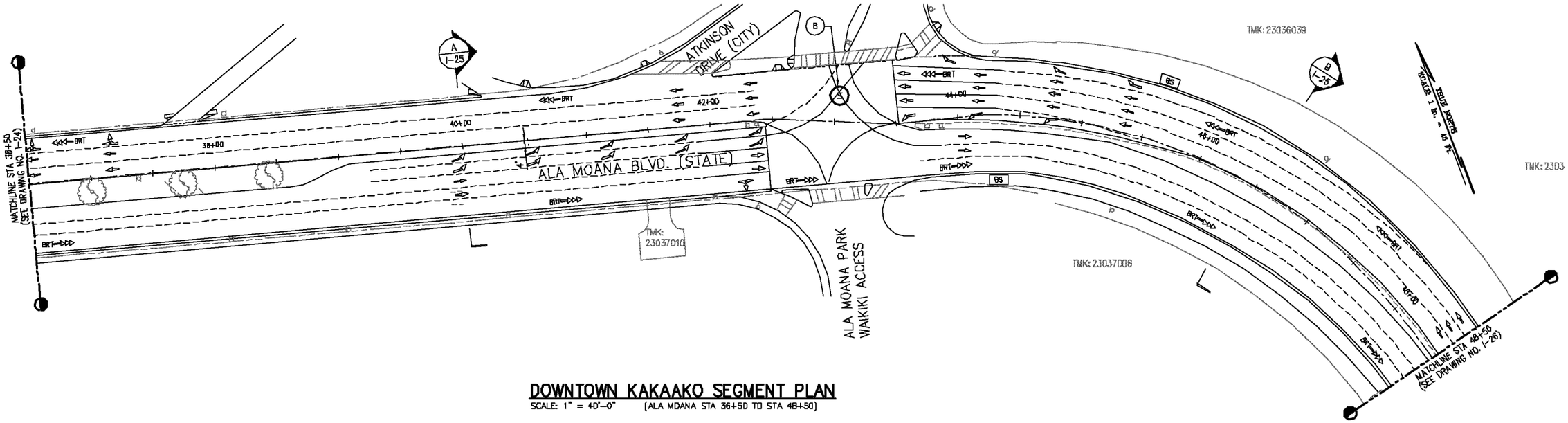
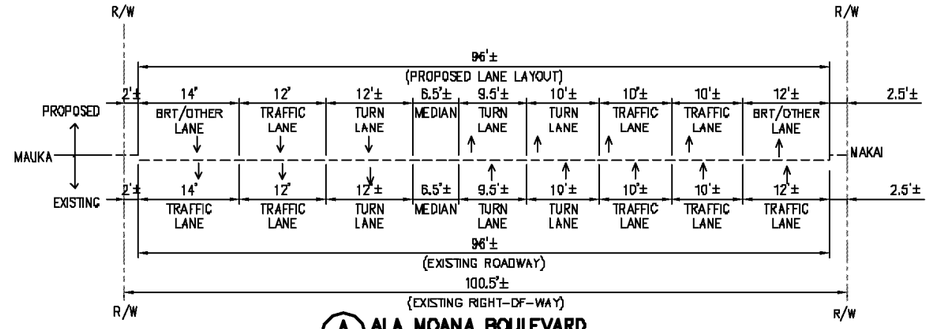
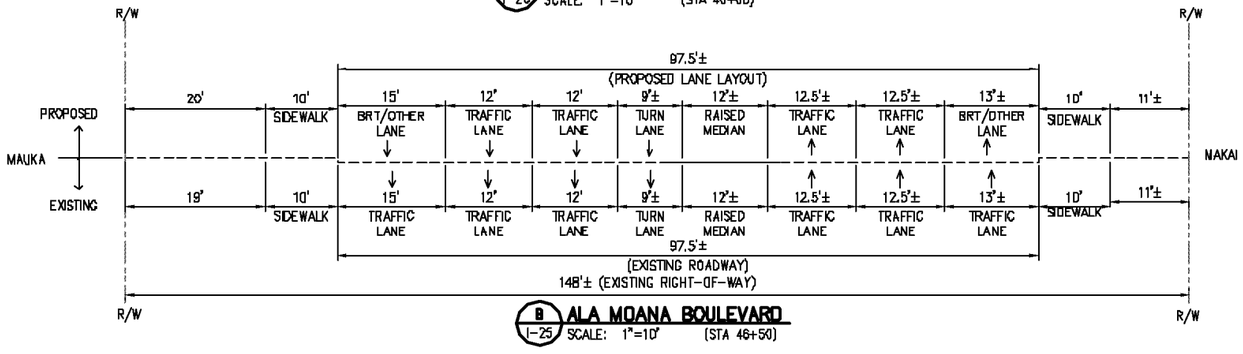


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (ALA MOANA STA 36+50 TO STA 48+50)



A I-25 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 40+00)



B I-25 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 46+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (9) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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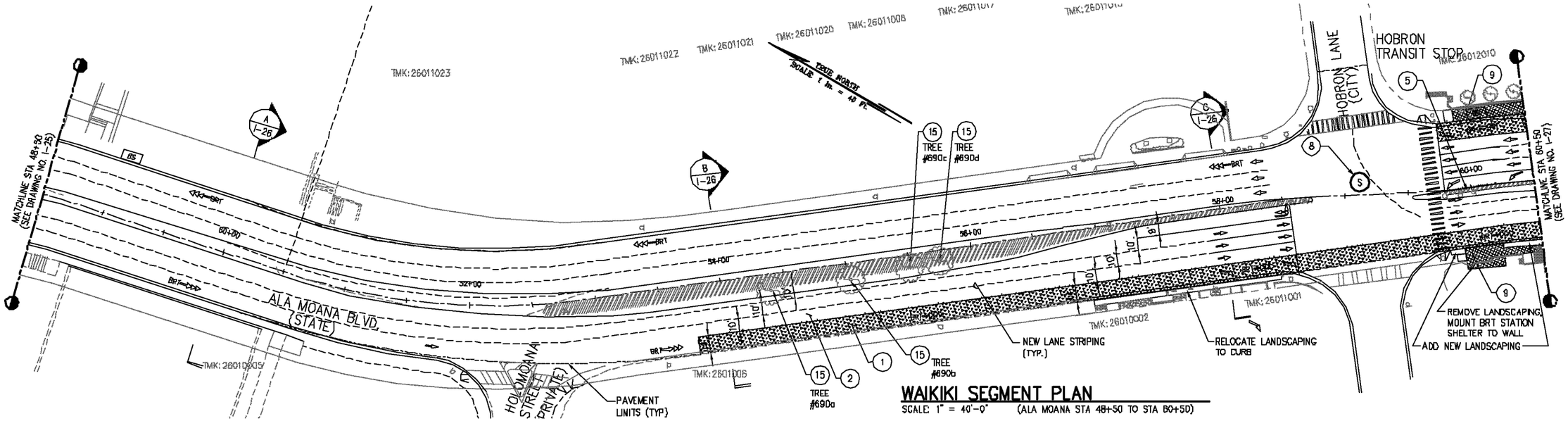
PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

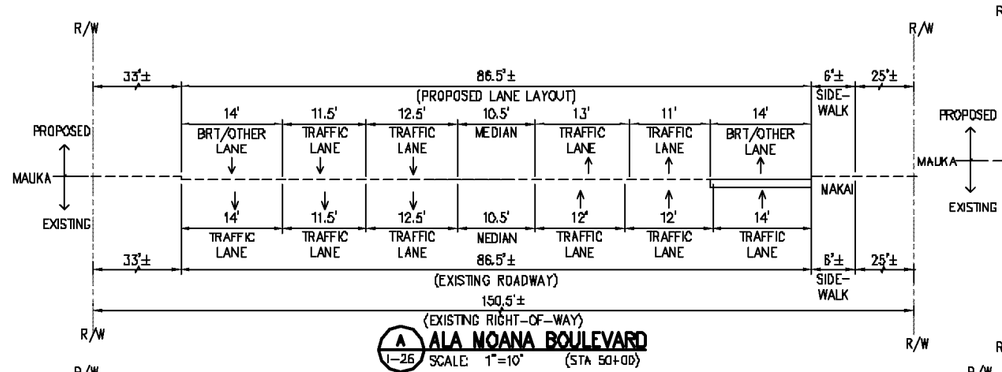
DRAWING NO.
I-25
DATE: 4-11-03 SHT. NO. 24 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-25 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 07/08/02 09:48 wgh

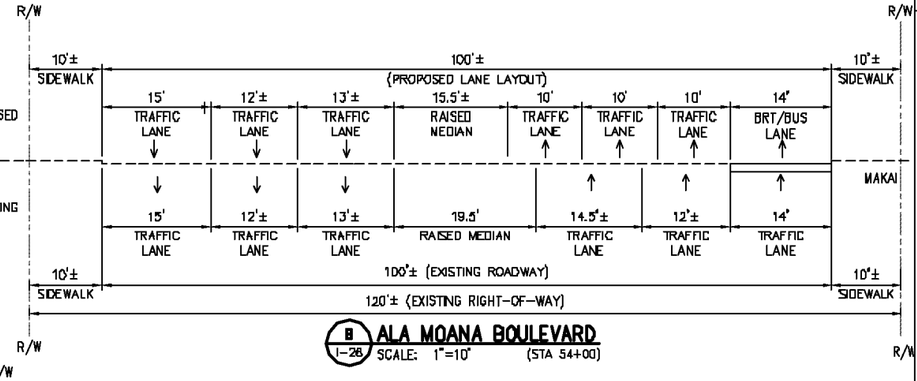


WAIKIKI SEGMENT PLAN

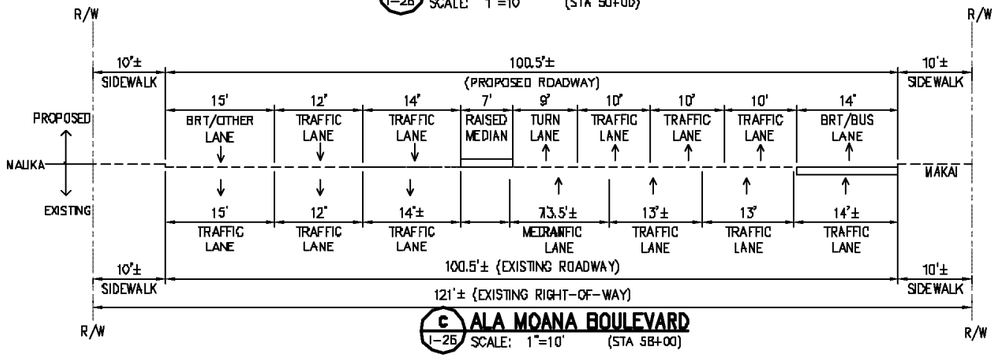
SCALE: 1" = 40'-0" (ALA MOANA STA 48+50 TO STA 60+50)



A I-26 ALA MOANA BOULEVARD
SCALE: 1"=10' (STA 50+00)



B I-26 ALA MOANA BOULEVARD
SCALE: 1"=10' (STA 54+00)



C I-26 ALA MOANA BOULEVARD
SCALE: 1"=10' (STA 58+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (3) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-26
DATE: 4-11-03 SHT. NO. 25 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-26 WAIKIK SEGMENT PLAN AND SECTIONS.DWG 07/08/02 19:28 wgh

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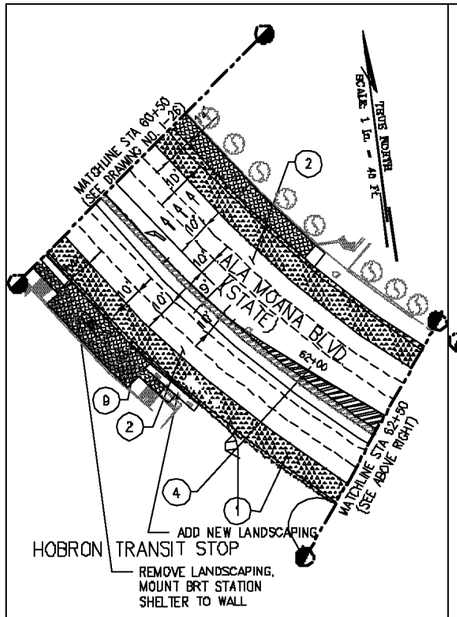

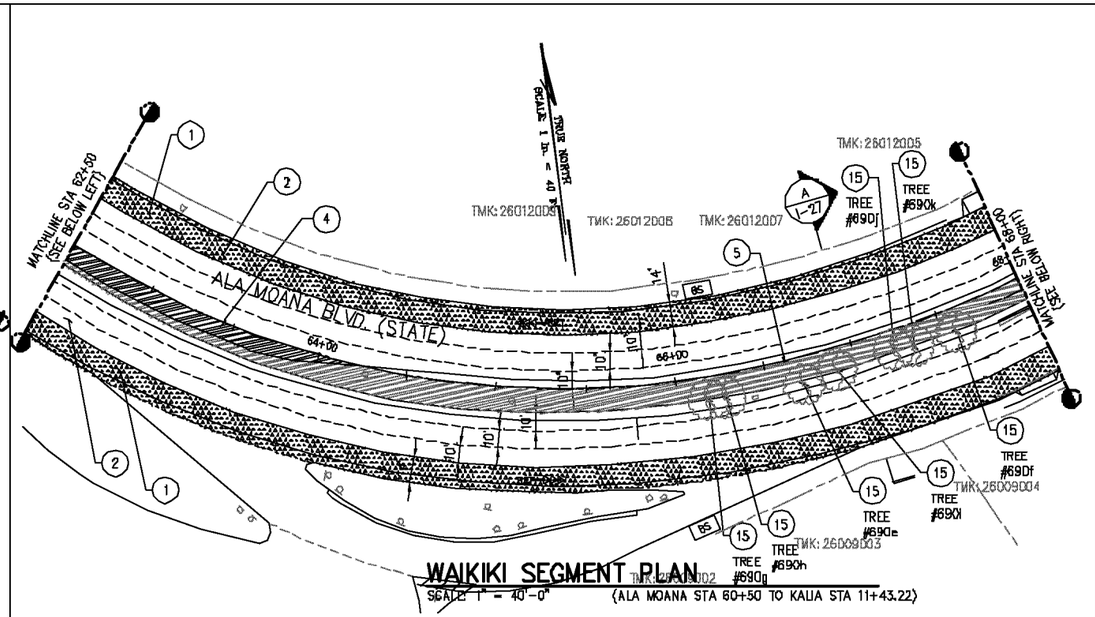

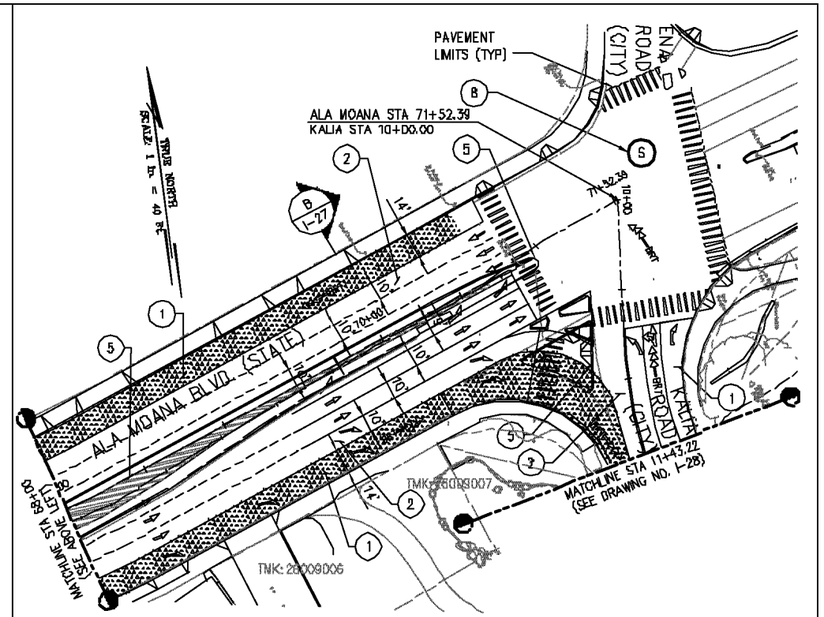

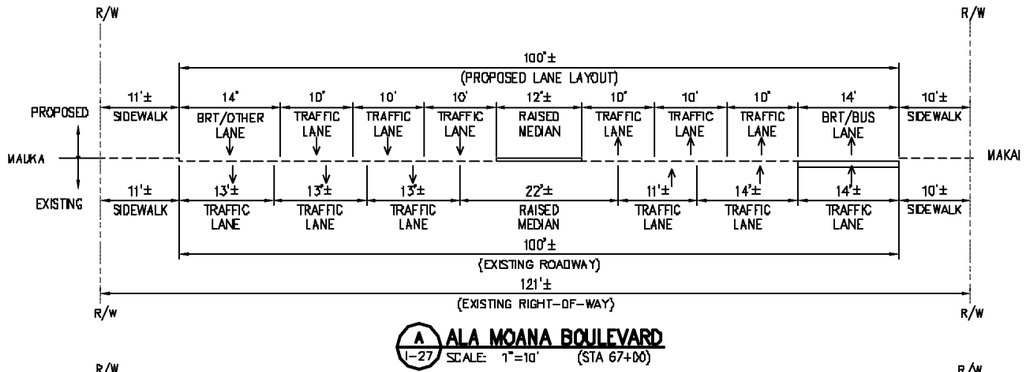

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (9) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-27
DATE: 4-11-03 SHT. NO. 26 OF 40

t:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-27 WAIKIK SEGMENT PLAN AND SECTIONS.DWG 10/23/02 14:25 WGH

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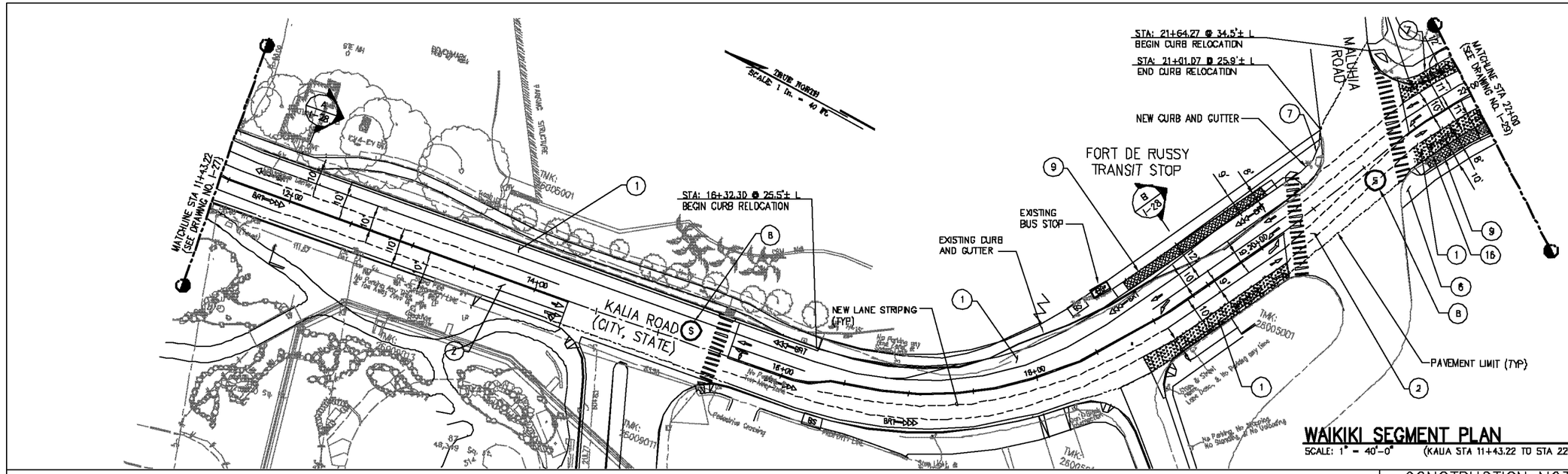
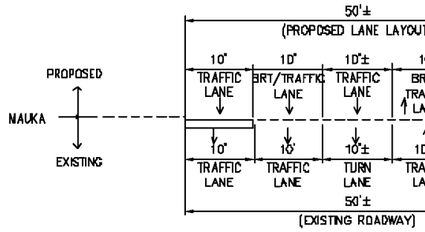
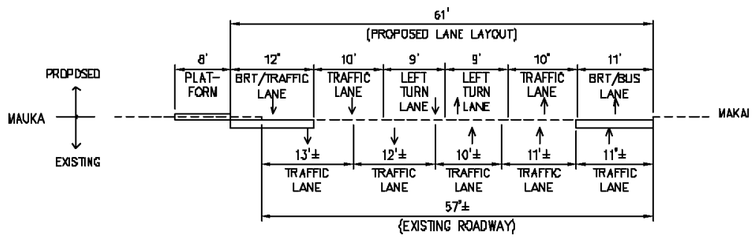


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KALIA STA 11+43.22 TO STA 22+00)



4 KALIA ROAD
I-28 SCALE: 1"=10' (STA 12+00)



8 KALIA ROAD
I-28 SCALE: 1"=10' (STA 19+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
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SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-28
DATE: 4-11-03 | SHT. NO. 27 OF 40

E:\2000\2000_280.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-28 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 05/28/02 09:42 JCH

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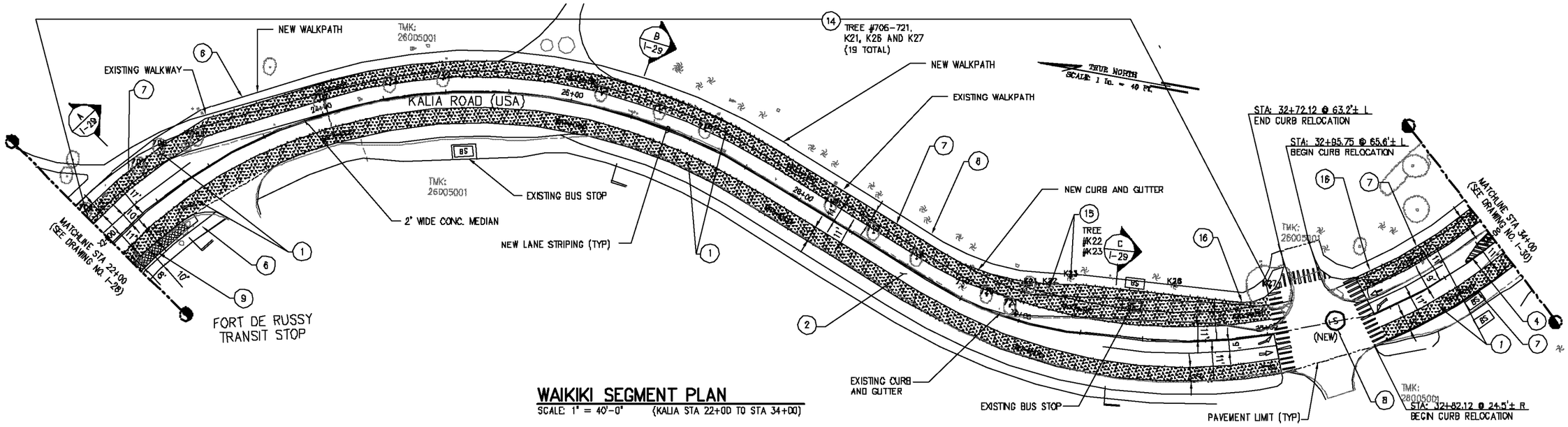
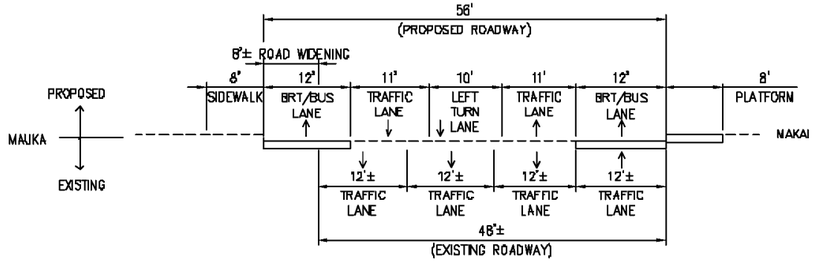
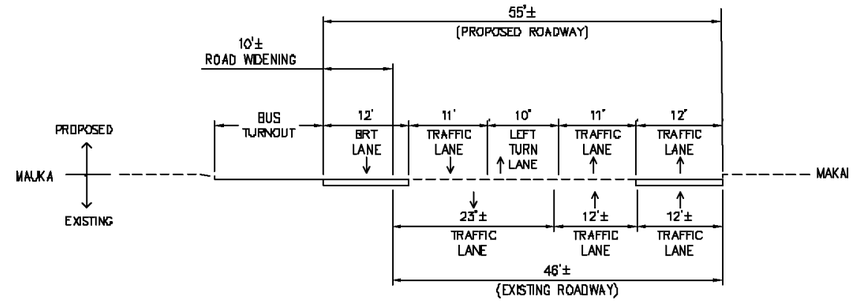


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KALIA STA 22+00 TO STA 34+00)



A I-29 **KALIA ROAD**
SCALE: 1"=10' (STA 22+50)



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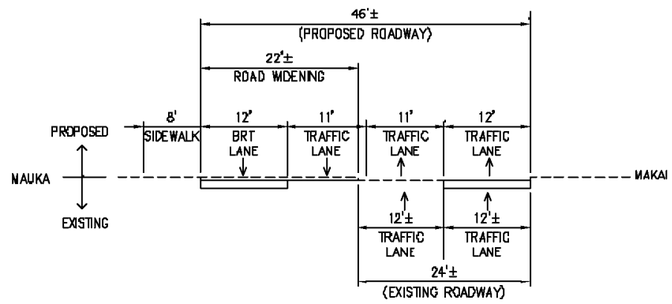
SCALE: 1"=10' (STA 30+75)



B I-29 **KALIA ROAD**
SCALE: 1"=10' (STA 26+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
8. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-29
DATE: 4-11-03 SHT. NO. 28 OF 40

t:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-29 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/08/02 15:27 wgh

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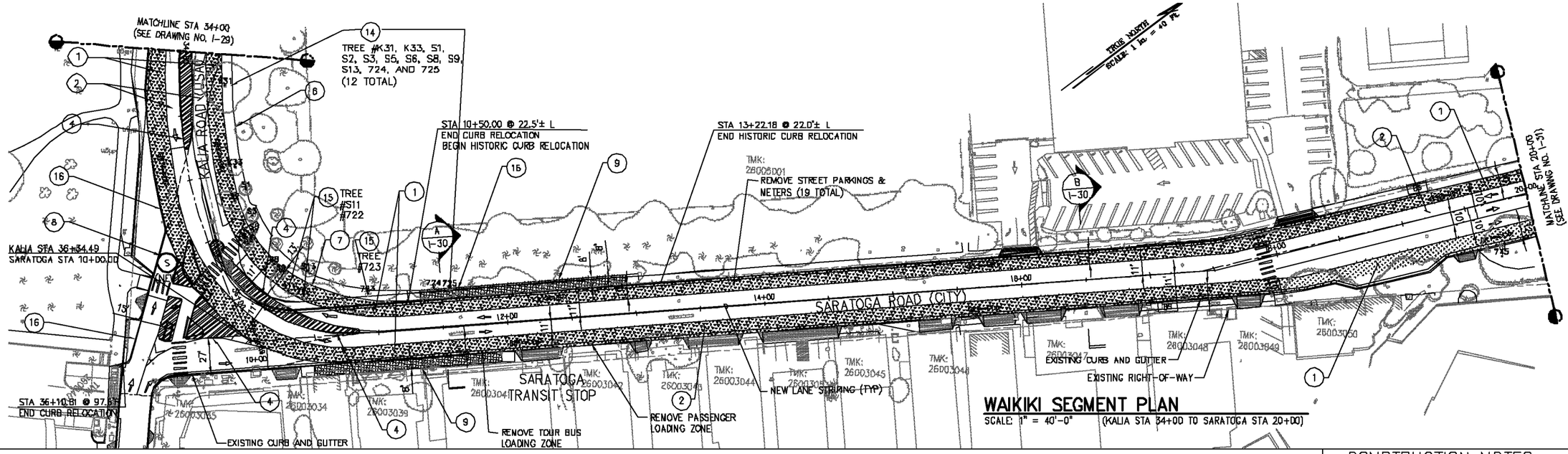
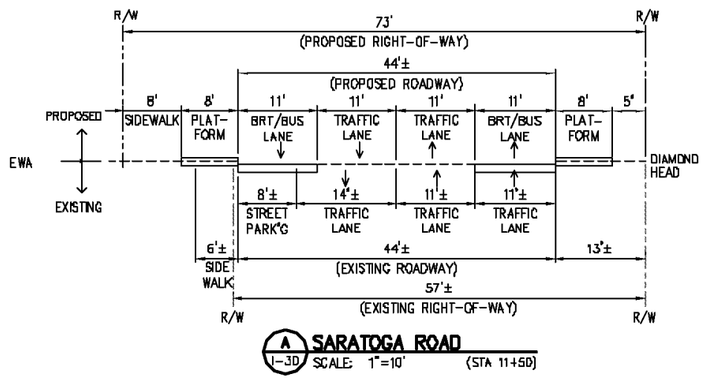
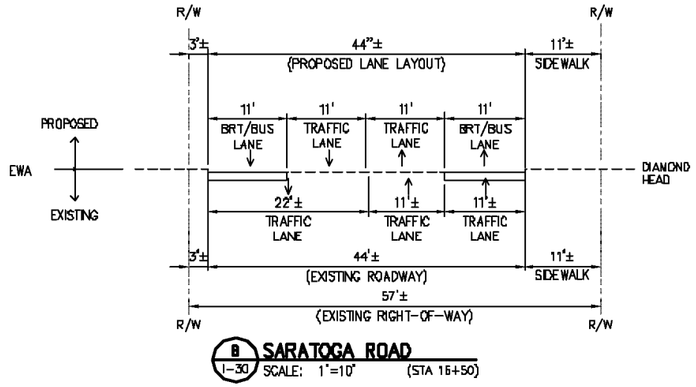


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KALIA STA 34+00 TO SARATOGA STA 20+00)



A I-30 **SARATOGA ROAD**
SCALE: 1"=10' (STA 11+50)



B I-30 **SARATOGA ROAD**
SCALE: 1"=10' (STA 15+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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SCALE:
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1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-30
DATE: 4-11-03 SHT. NO. 29 OF 40

E:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-30 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/08/02 19:28 wgh

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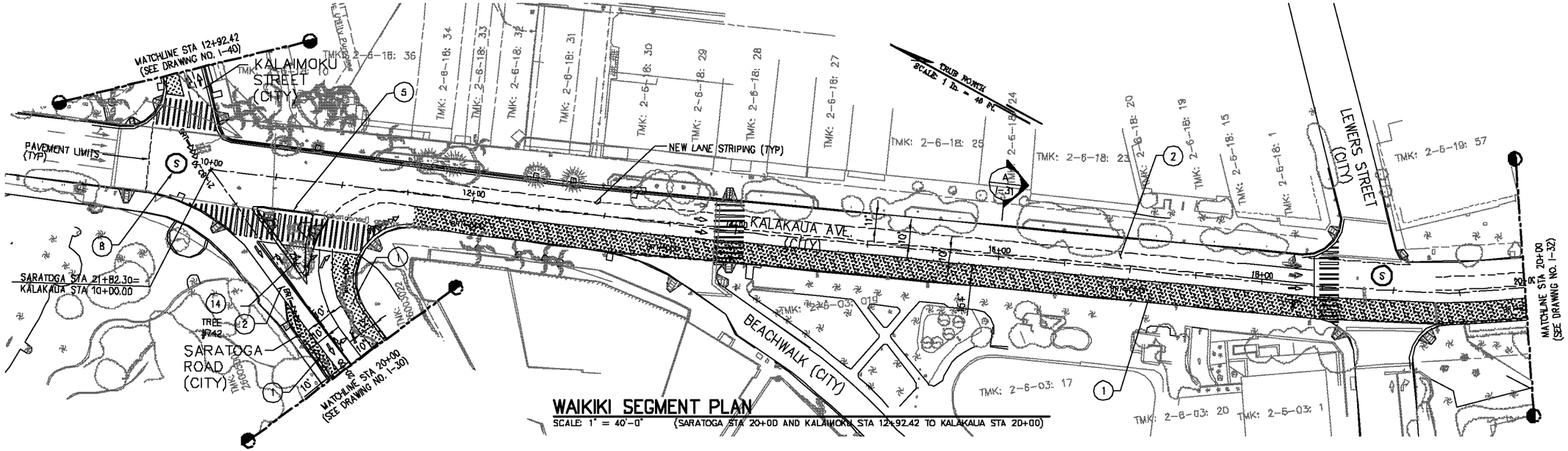
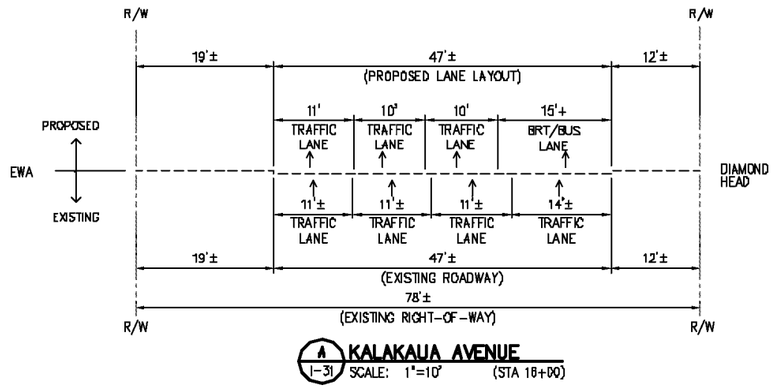


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (SARATOGA STA 20+00 AND KALAIMOKU STA 12+92.42 TO KALAKAUA STA 20+00)



A I-31 **KALAKAUA AVENUE**
SCALE: 1"=10' (STA 16+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE ODOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (9) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
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- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-31

DATE: 4-11-03 SHT. NO. 30 OF 40

t:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-31 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/08/02 19:30 wgh

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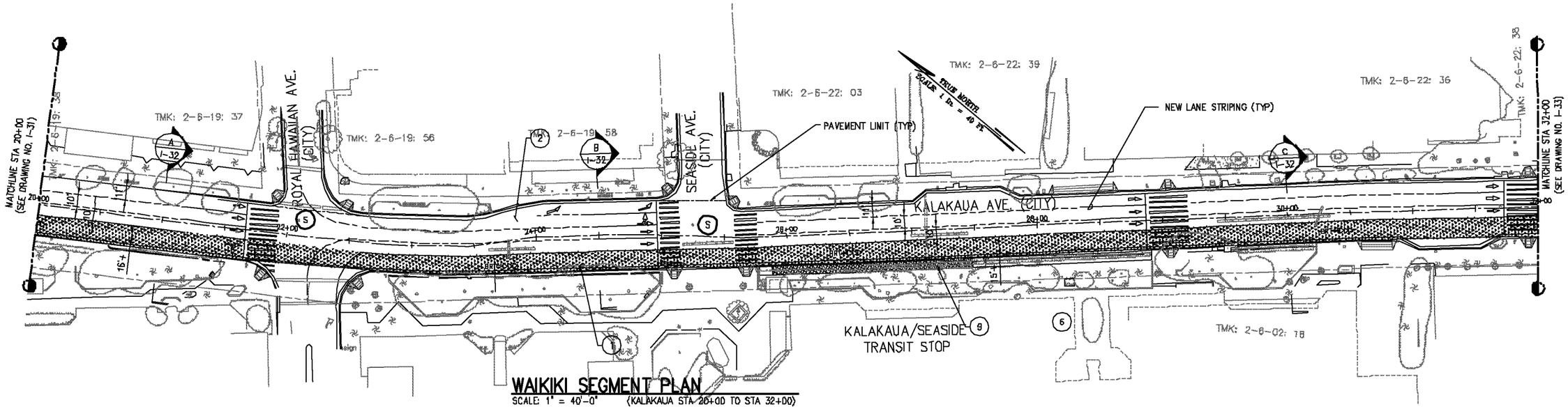
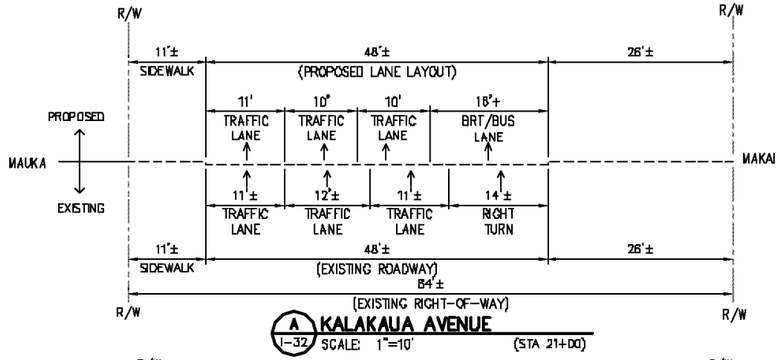
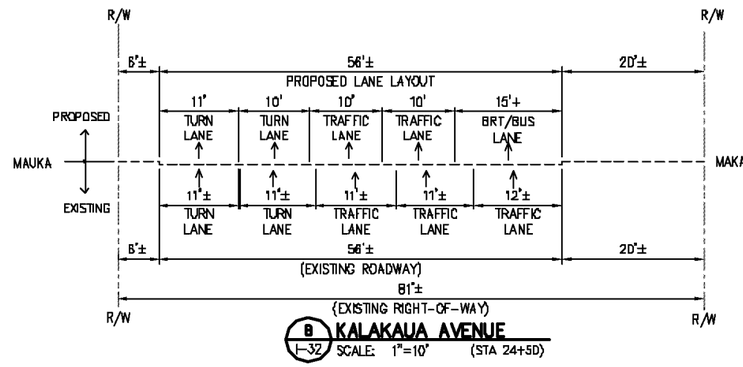
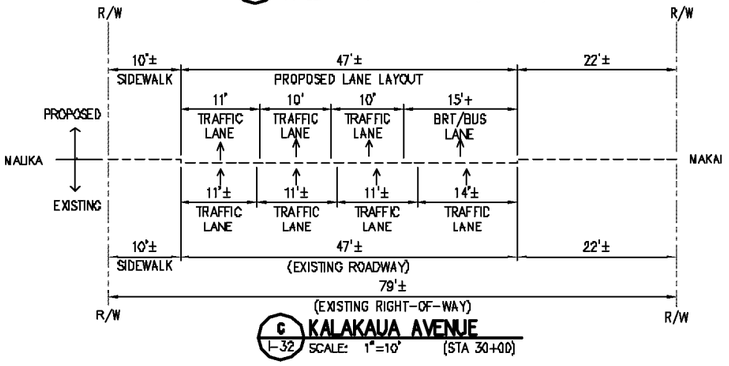


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KALAKAUA STA 20+00 TO STA 32+00)







CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE ODT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-32
DATE: 4-11-03 SHT. NO. 31 OF 40

E:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-32 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 05/28/02 10:41 WGH

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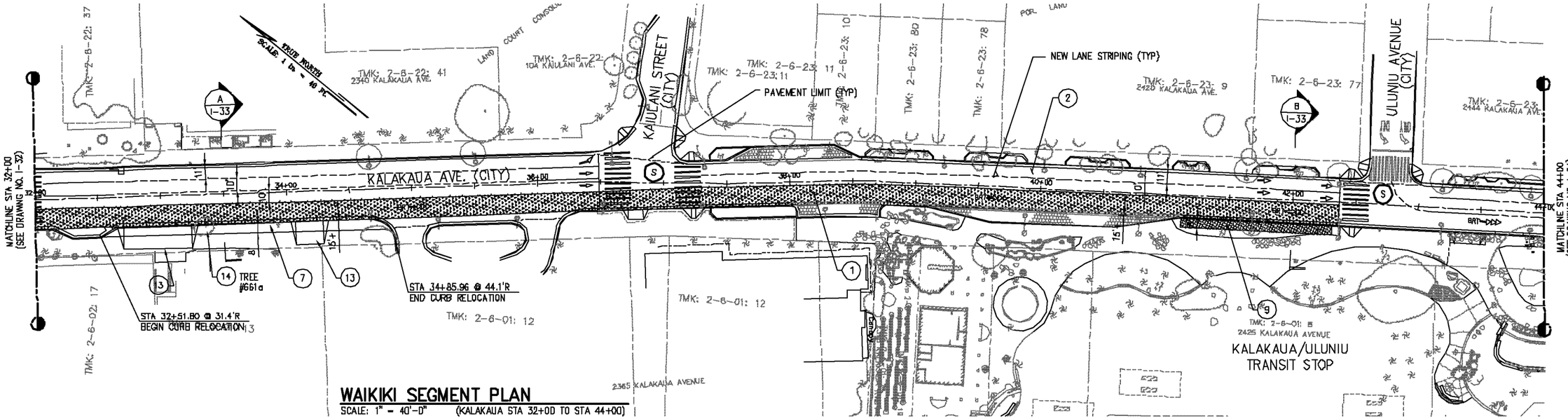
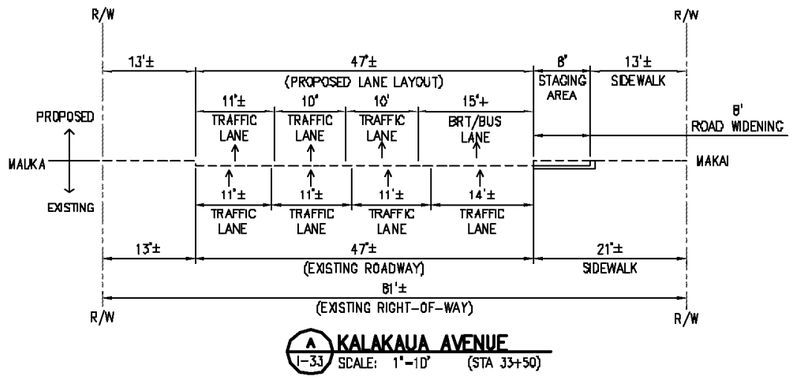
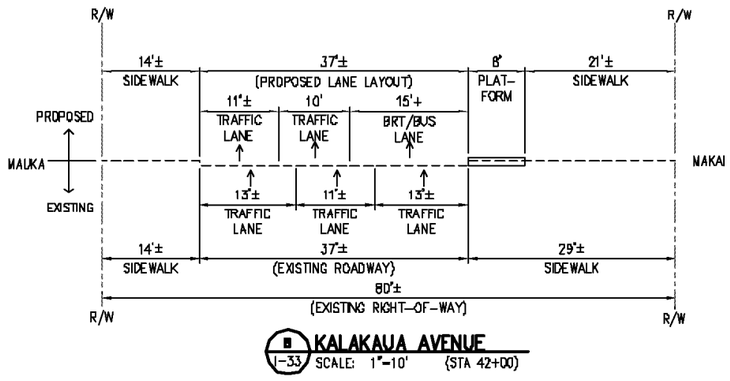


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KALAKAUA STA 32+00 TO STA 44+00)



A I-33 KALAKAUA AVENUE
SCALE: 1"=10' (STA 33+50)



B I-33 KALAKAUA AVENUE
SCALE: 1"=10' (STA 42+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
8. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (9) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-33
DATE: 4-11-03 SHT. NO. 32 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-33 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 11/25/01 18:16 WGH

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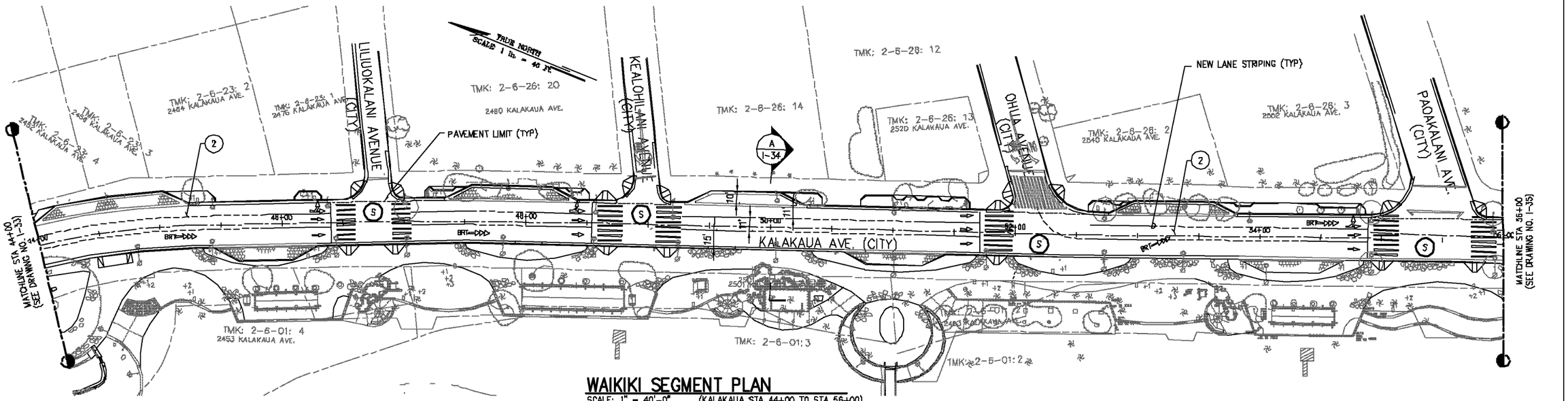
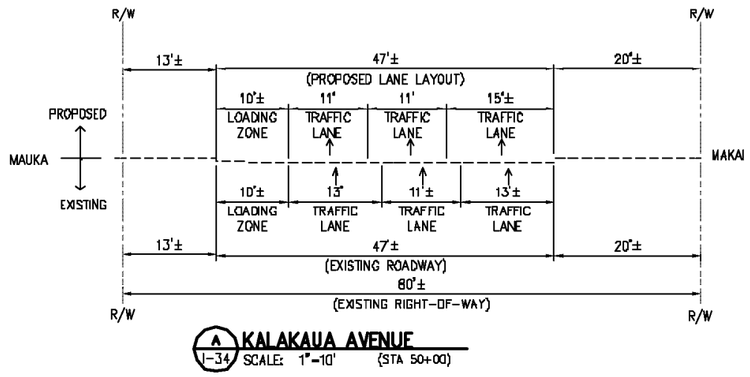


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KALAKAUA STA 44+00 TO STA 56+00)



A I-34 KALAKAUA AVENUE

SCALE: 1"=10' (STA 50+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
8. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-34

DATE: 4-11-03 SHT. NO. 33 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-34 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 11/28/01 15:32 JXT

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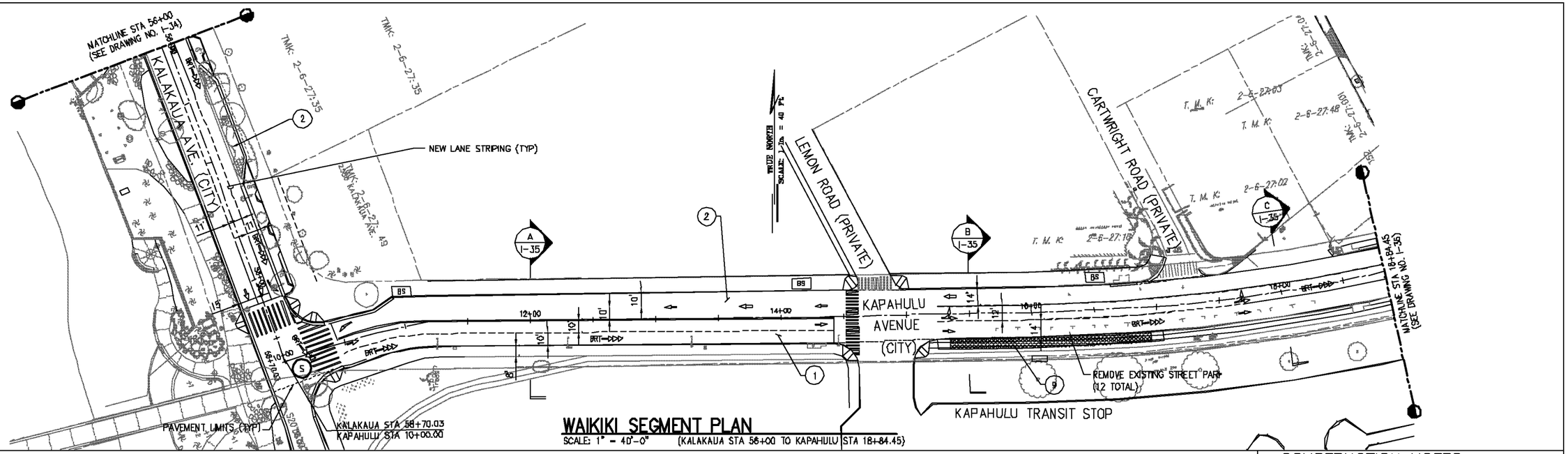
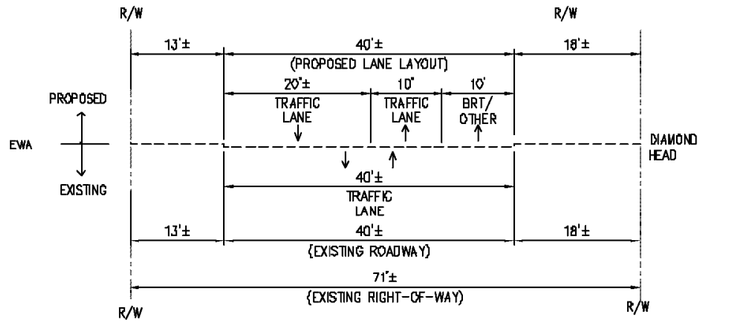
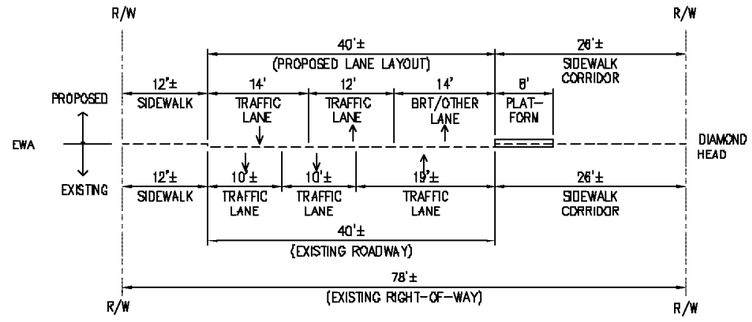


WAIKIKI SEGMENT PLAN

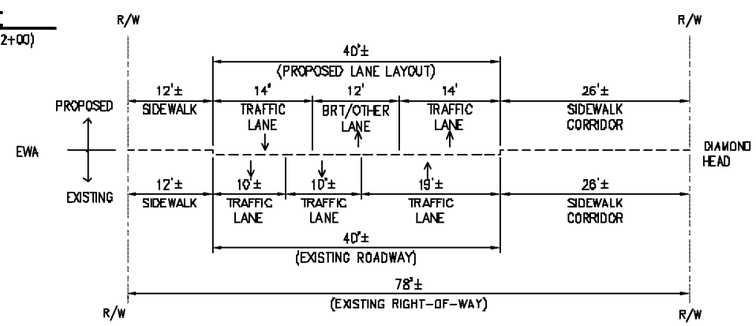
SCALE: 1" = 40'-0" (KALAKAUA STA 58+00 TO KAPAHULU STA 18+84.45)



A KAPAHULU AVENUE
I-35 SCALE: 1"=10' (STA 12+00)



B KAPAHULU AVENUE
I-35 SCALE: 1"=10' (STA 15+50)



C KAPAHULU AVENUE
I-35 SCALE: 1"=10' (STA 18+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
8. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO.
I-35

DATE: 4-11-03 | SHT. NO. 34 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\I-WAIKIKI SEGMENT\I-35 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/08/02 08:33 wgh

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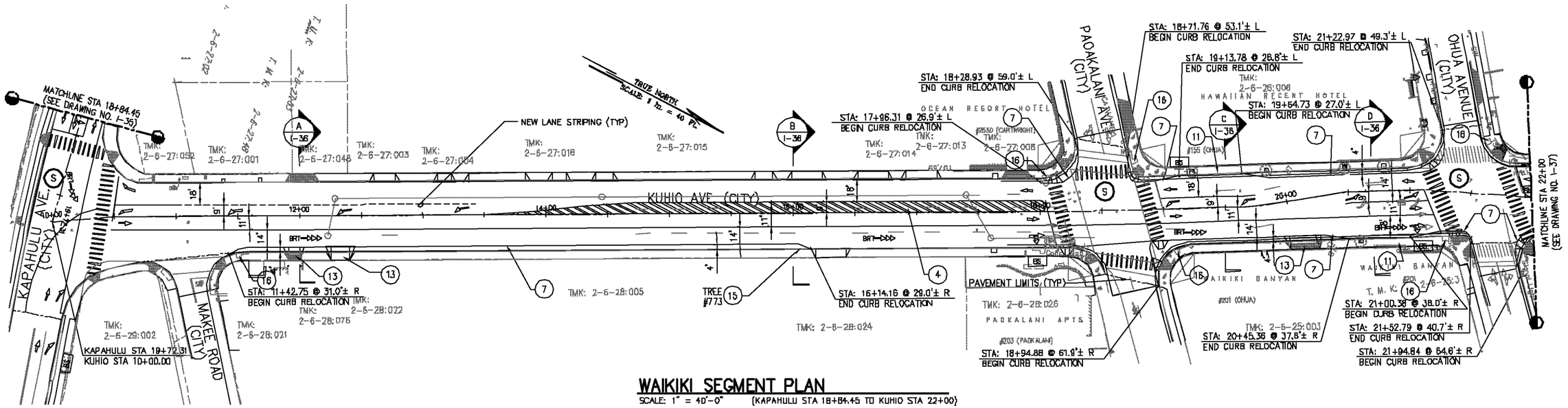
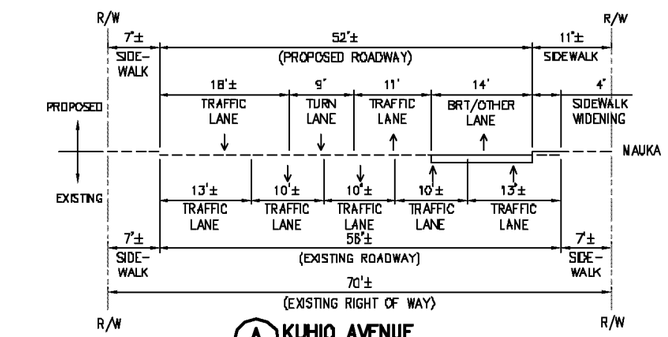
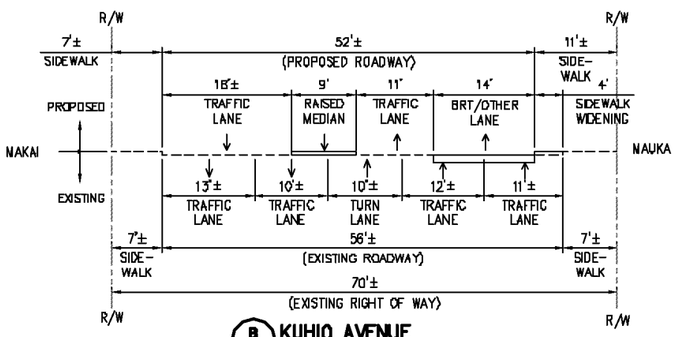
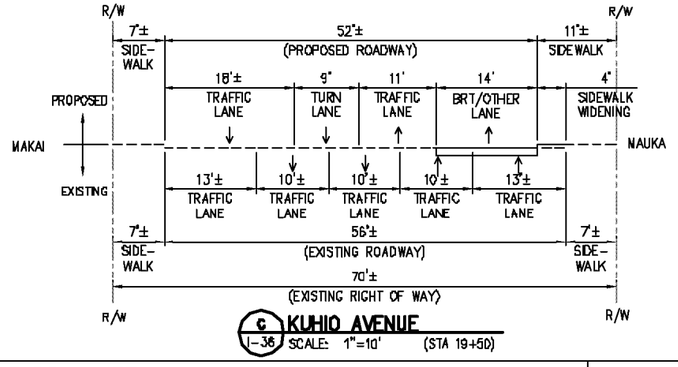


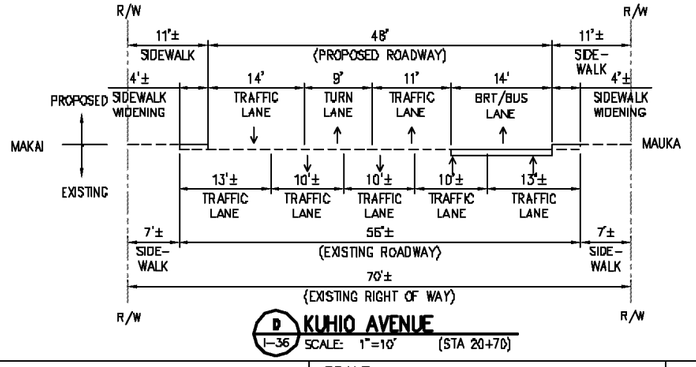
WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KAPAHULU STA 18+84.45 TO KUHIO STA 22+00)









CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

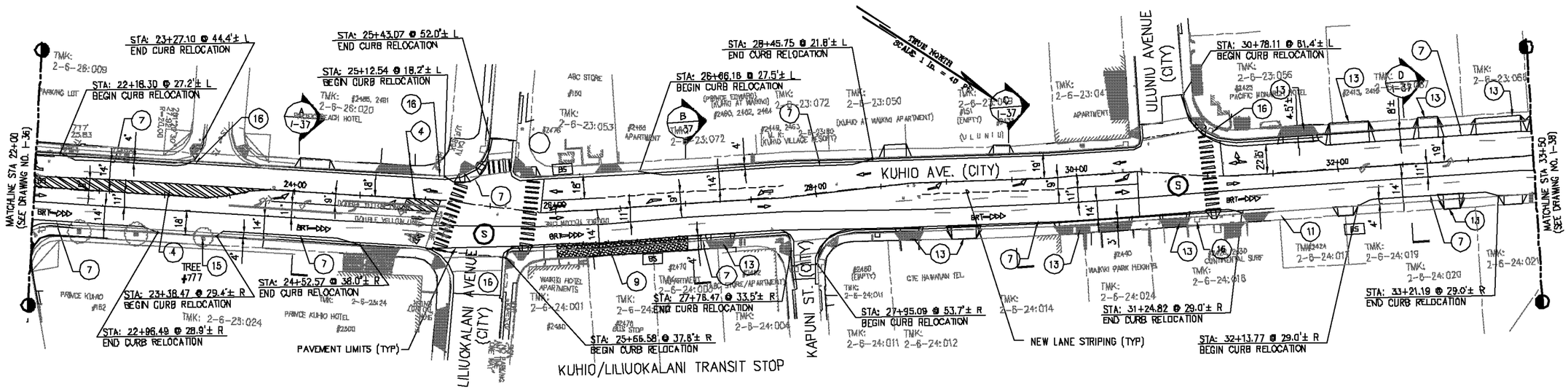
SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-36
DATE: 4-11-03 SHT. NO. 35 OF 40

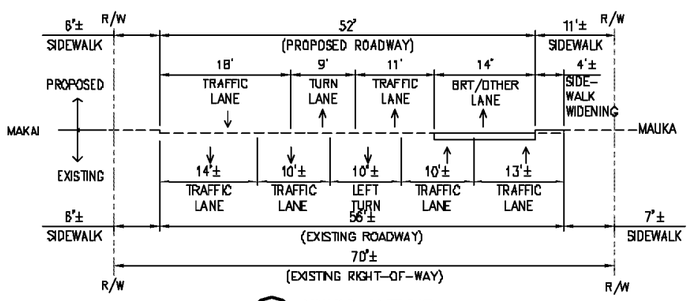
I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-36 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/08/02 19:32 WGH

AR00016448

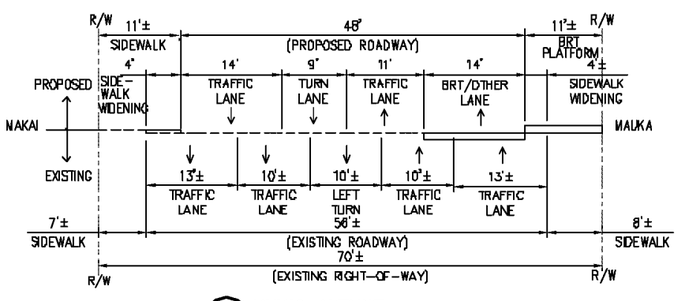


WAIKIKI SEGMENT PLAN

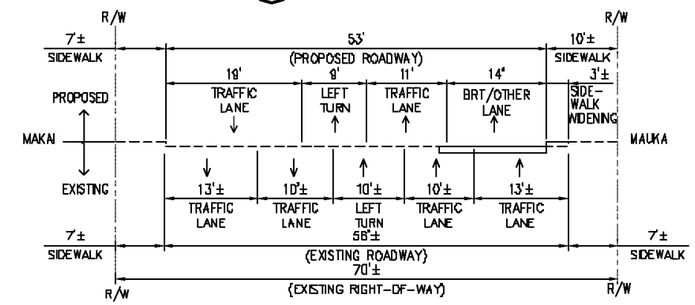
SCALE: 1" = 40'-0" (KUHIO STA 22+00 TO STA 33+50)



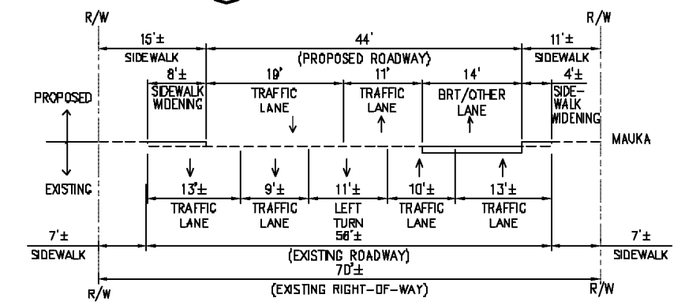
A I-37 KUHIO AVENUE
SCALE: 1"=10' (STA 24+00)



D I-37 KUHIO AVENUE
SCALE: 1"=10' (STA 27+00)



C I-37 KUHIO AVENUE
SCALE: 1"=10' (STA 29+50)



D I-37 KUHIO AVENUE
SCALE: 1"=10' (STA 32+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
8. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

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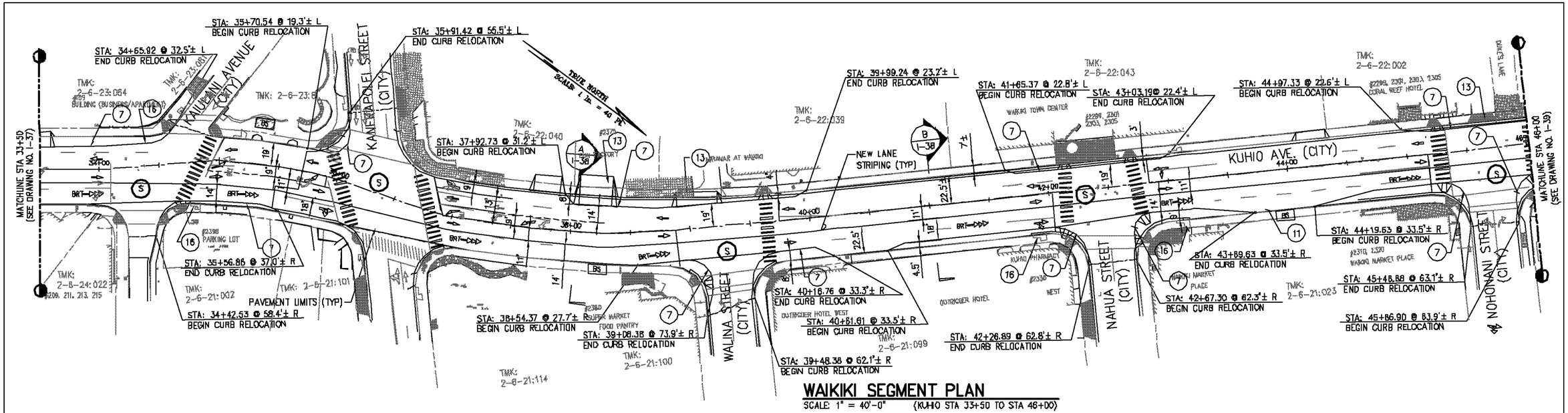
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

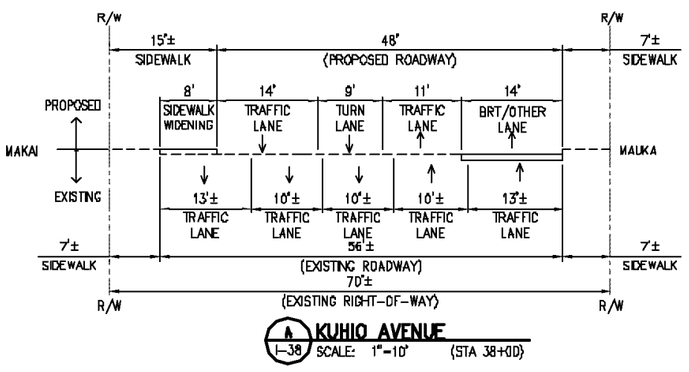
IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING

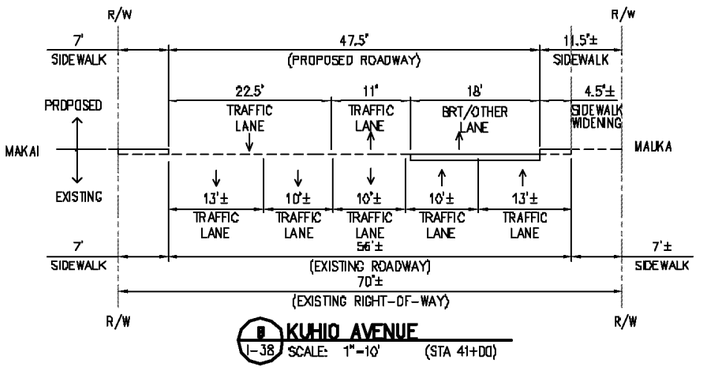


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KUHIO STA 33+50 TO STA 46+00)



A I-38 KUHIO AVENUE
SCALE: 1"=10' (STA 38+00)



B I-38 KUHIO AVENUE
SCALE: 1"=10' (STA 41+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
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CITY & COUNTY OF HONOLULU
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1" = 40' 40' 20' 0 40' 80'
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IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-38
DATE: 4-11-03 SHT. NO. 37 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-38 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 11/25/01 15:47 JXT

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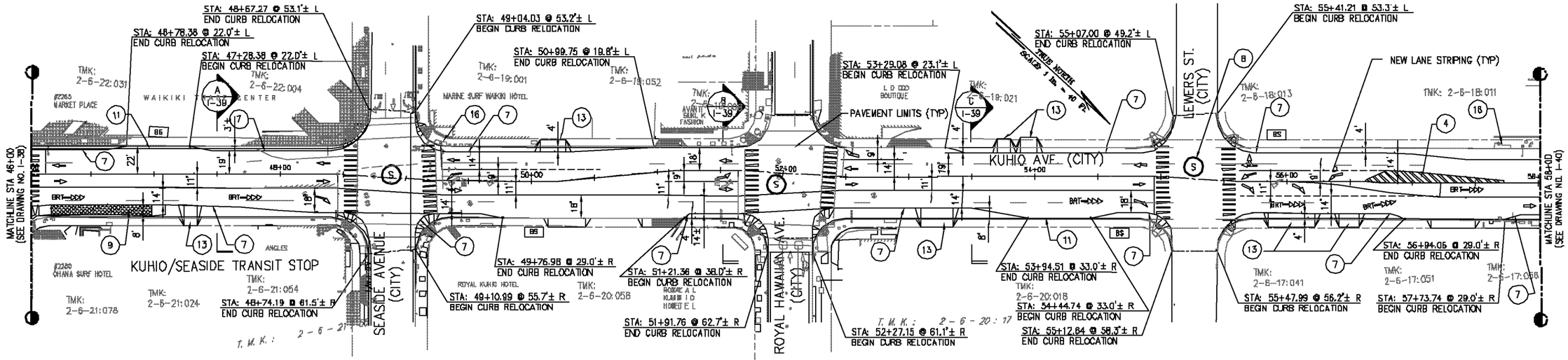
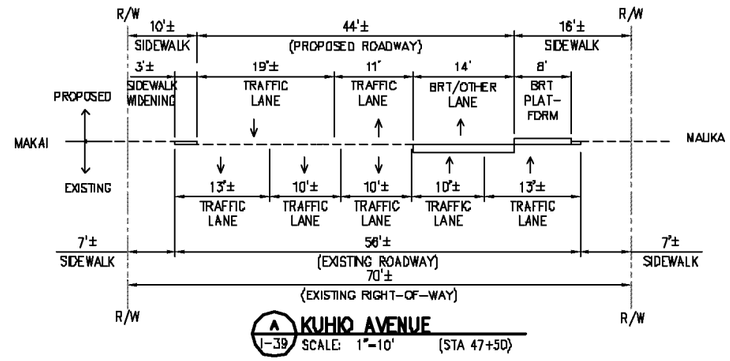
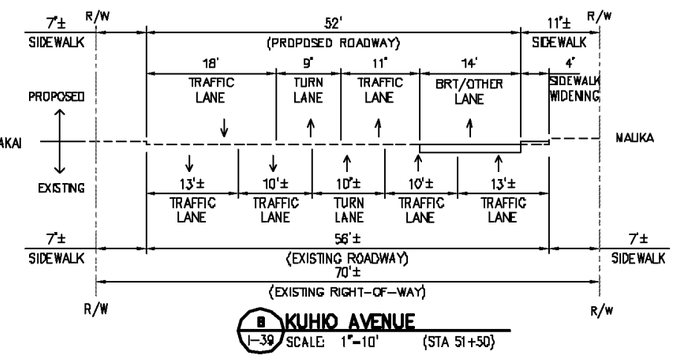
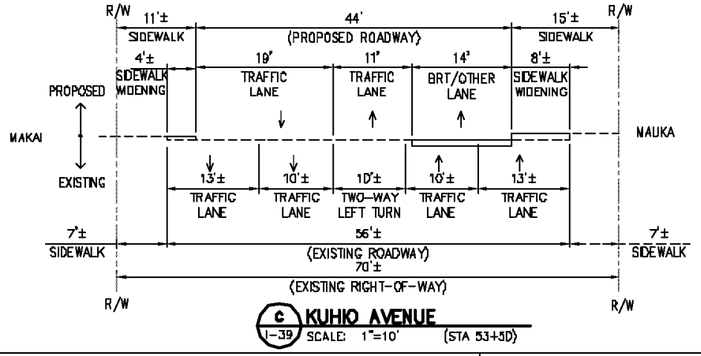


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KUHIO STA 46+00 TO STA 58+00)







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18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (9) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-39
DATE: 4-11-03 SHT. NO. 38 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-39 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 11/25/01 10:48 JXT

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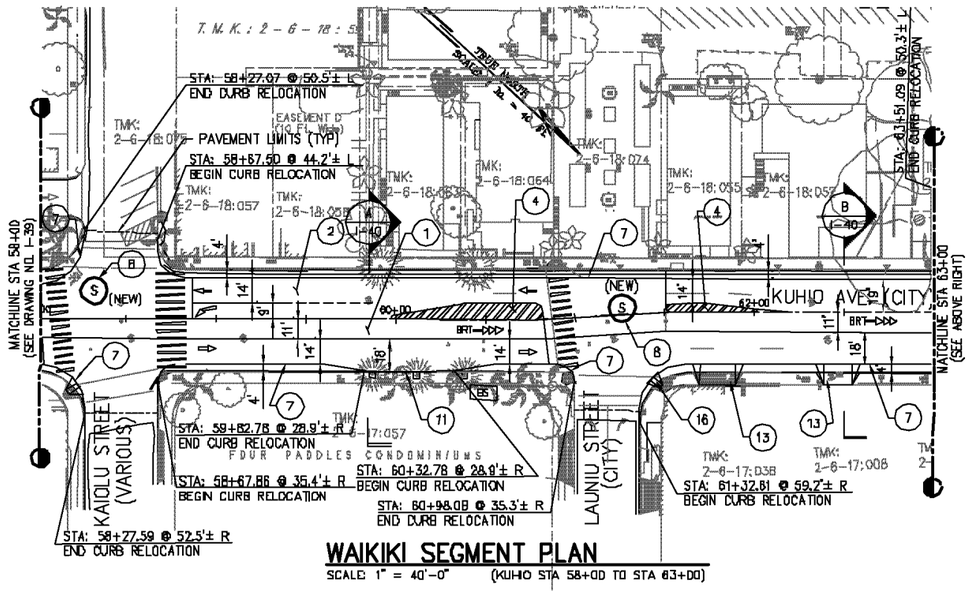

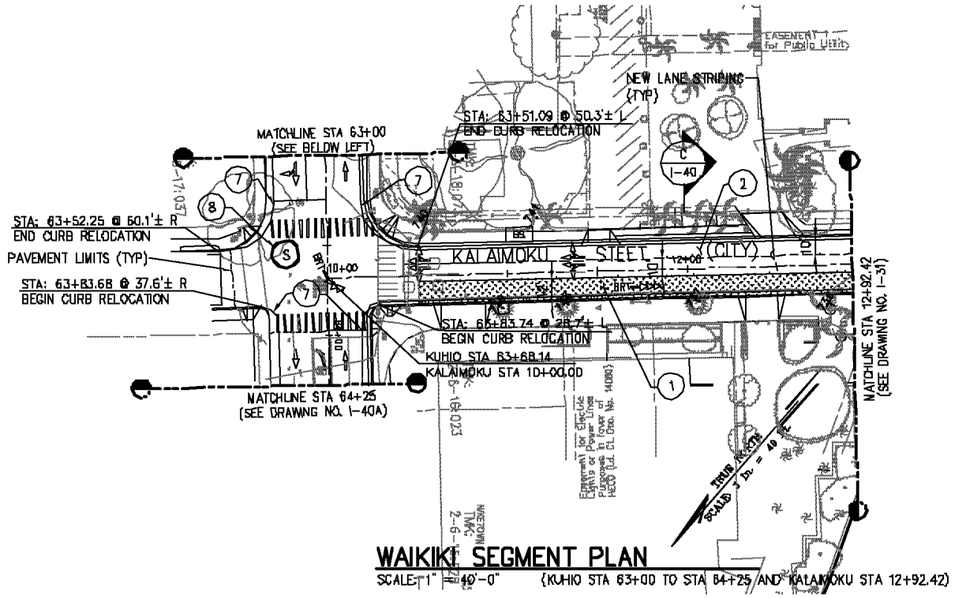

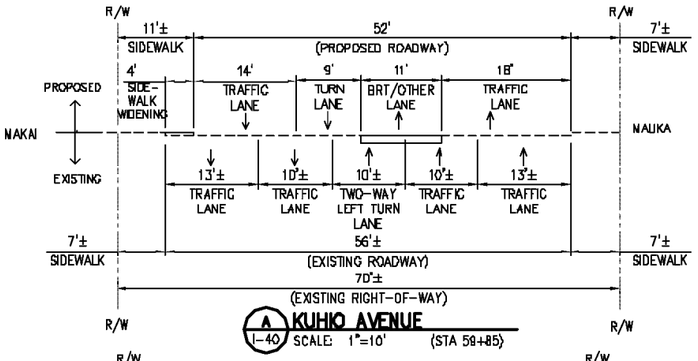

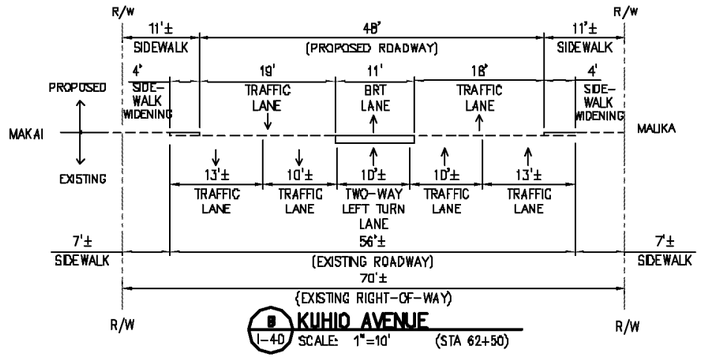

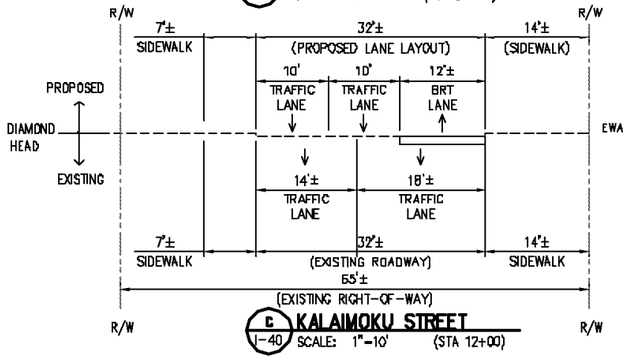

CONSTRUCTION NOTES

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3. PROVIDE NEW AC PAVEMENT, STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
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9. PROVIDE NEW 15" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
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18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (3) SIGNALIZED INTERSECTION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
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- PAVEMENT/SLURRY LIMITS
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SCALE:
1" = 40' (40' 20' 0 40' 80')
1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-40
DATE: 4-11-03 SHT. NO. 39 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-40 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 10/23/02 14:31 WGH

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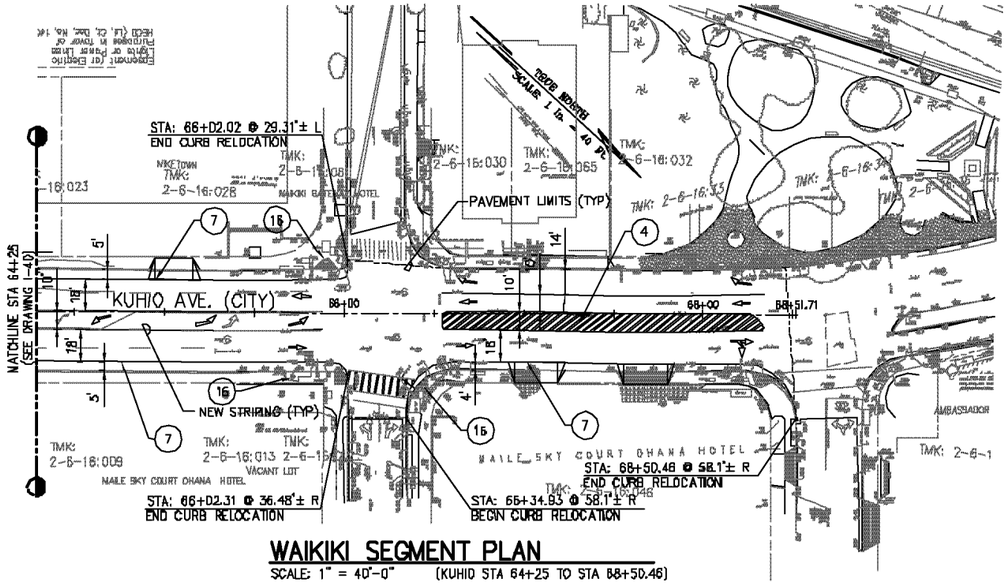

WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KUHIO STA 64+25 TO STA 88+50.46)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
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3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
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8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- BRT — BRT ROUTE
- ADA CURB RAMP
- BS — BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
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SCALE:
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1" = 10' (10' 5' 0 10' 20')

IN-TOWN BUS RAPID TRANSIT (BRT)
INITIAL OPERATING SEGMENT
PRELIMINARY ENGINEERING PLAN

DRAWING NO. I-40A
DATE: 4-11-03 SHT. NO. 40 OF 40

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-40A WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 12/28/01 10:59 JCH

AR00016453

Final Environmental Impact Statement

VOLUME 4 OF 4

Appendix B:

Refined Locally Preferred Alternative

Preliminary Engineering Drawings

Primary Corridor Transportation Project

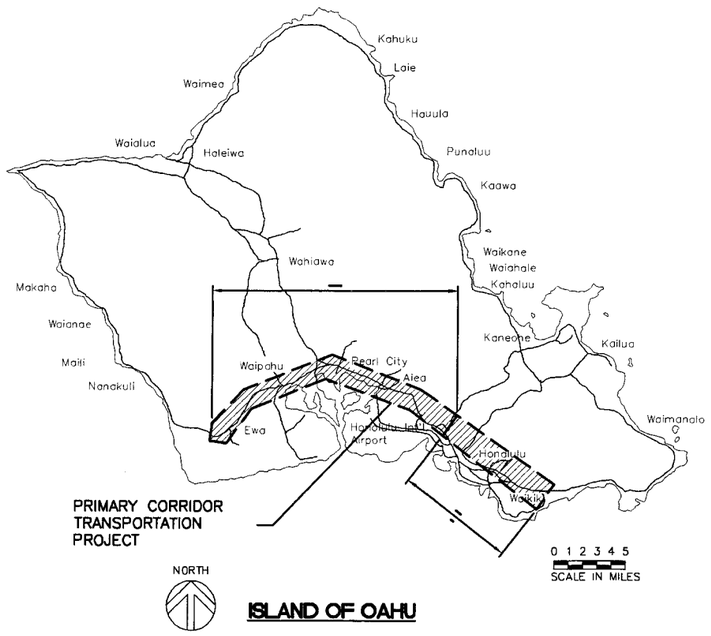
US Department of Transportation
Federal Transit Administration

City and County of Honolulu
Department of Transportation Services

JULY 2003

AR00016454

VICINITY MAP



ISLAND OF OAHU

INDEX OF DRAWINGS

SHEET NO.	DWG. NO.	DESCRIPTION
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2	T-2	INDEX OF DRAWINGS AND VICINITY MAP
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5	G-3	IN-TOWN BUS RAPID TRANSIT (BRT) KEY MAP
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8 – 25	R-2 TO R-19	INTERSTATE ROUTE H-1 PLAN AND SECTION
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49	R-43	ALOHA STADIUM PARK AND RIDE LOCATION PLAN
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DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

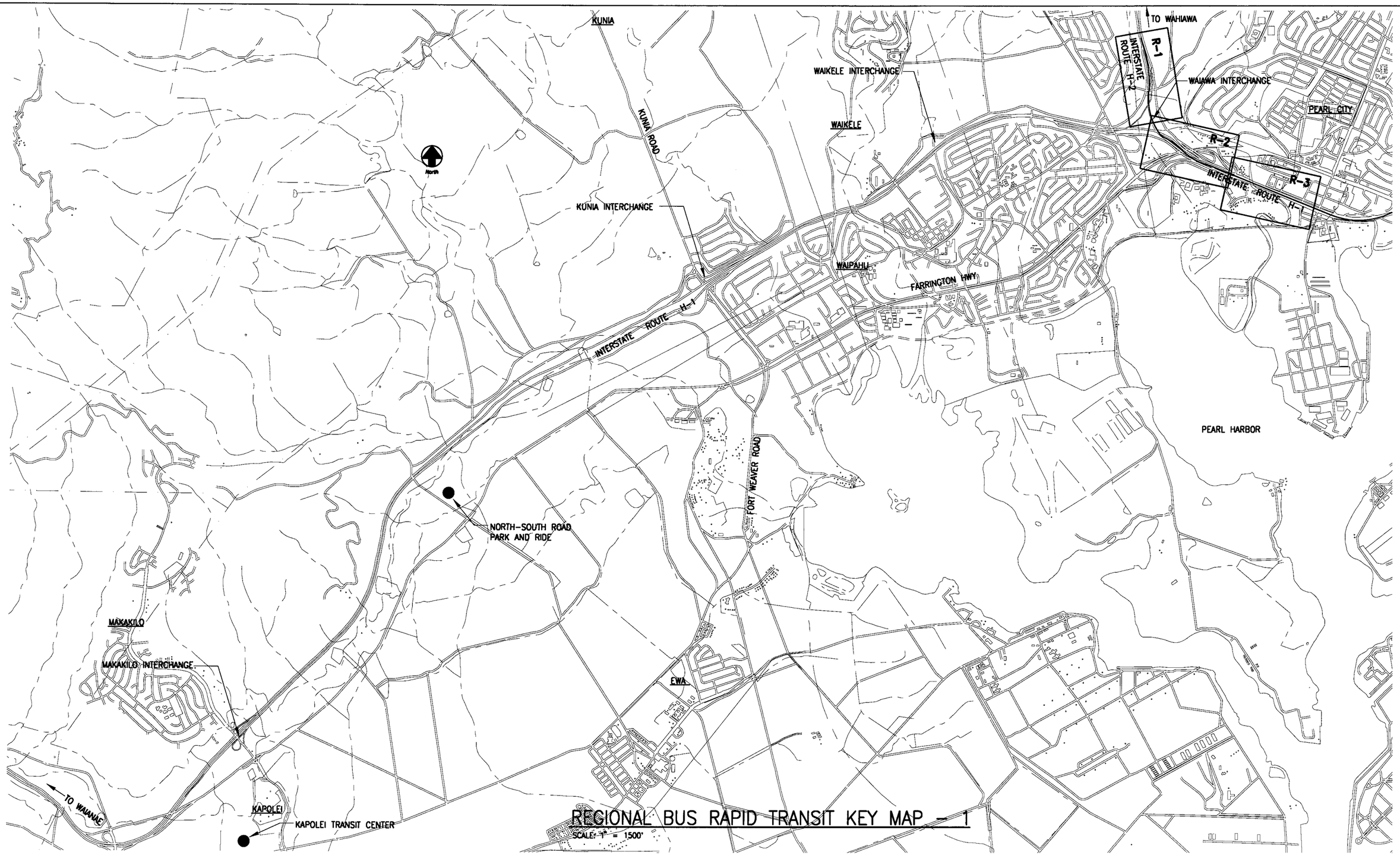
PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

INDEX OF DRAWINGS AND VICINITY MAP

DRAWING NO. **T-2**

DATE: 5-24-02 | SHEET NO. **2** OF **142**

AR00016455



REGIONAL BUS RAPID TRANSIT KEY MAP – 1

SCALE: 1" = 1500'

DISCLAIMER

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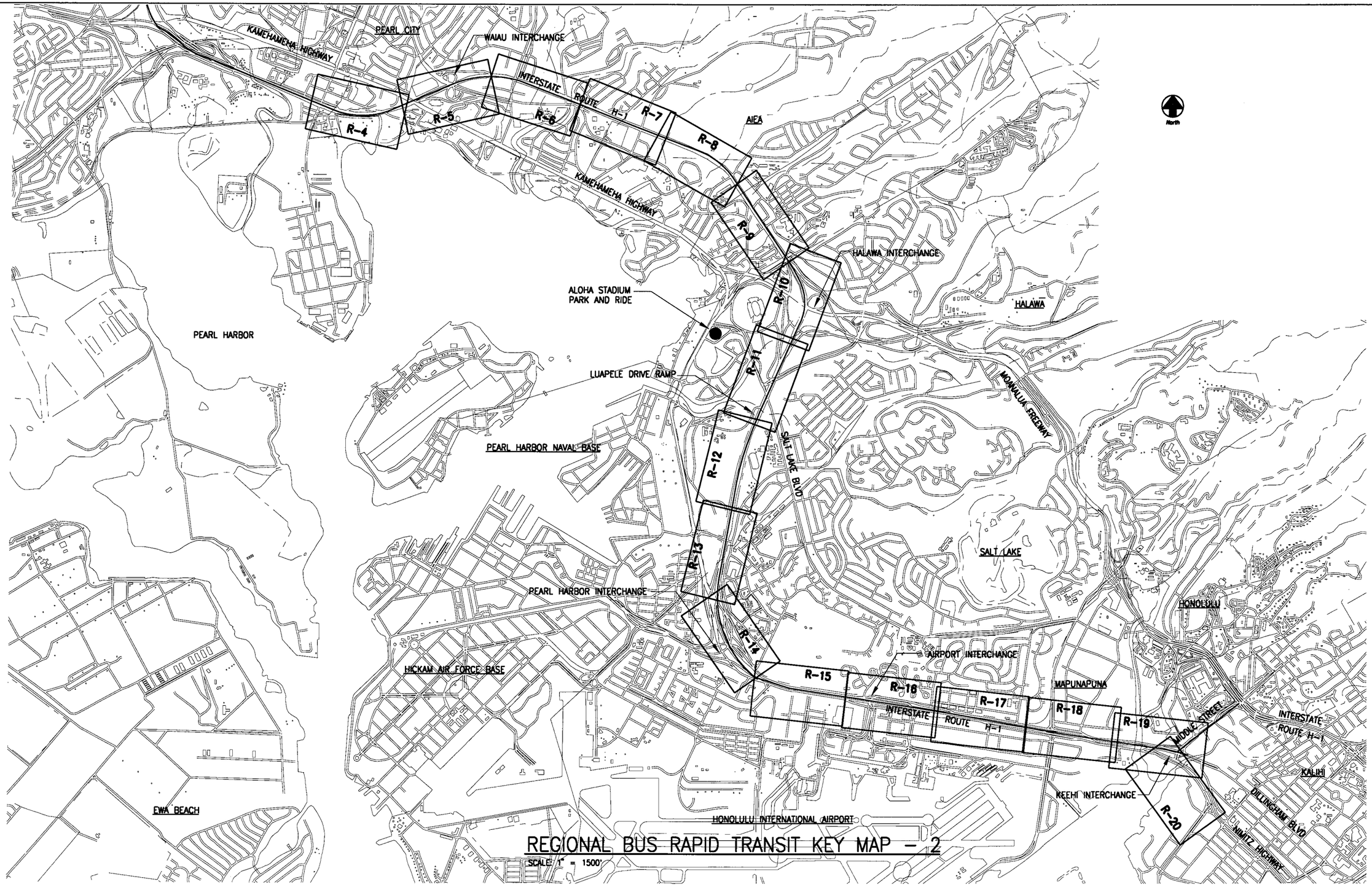
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 1500' 750' 0 1500' 3000'
FULL SIZE SCALE: 1" = 1500'

REGIONAL BUS RAPID TRANSIT KEY MAP – 1

DRAWING NO.
G-1
DATE: 5-24-02 SHEET NO. 3 OF 142

AR00016456



REGIONAL BUS RAPID TRANSIT KEY MAP – 2

SCALE: 1" = 1500'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

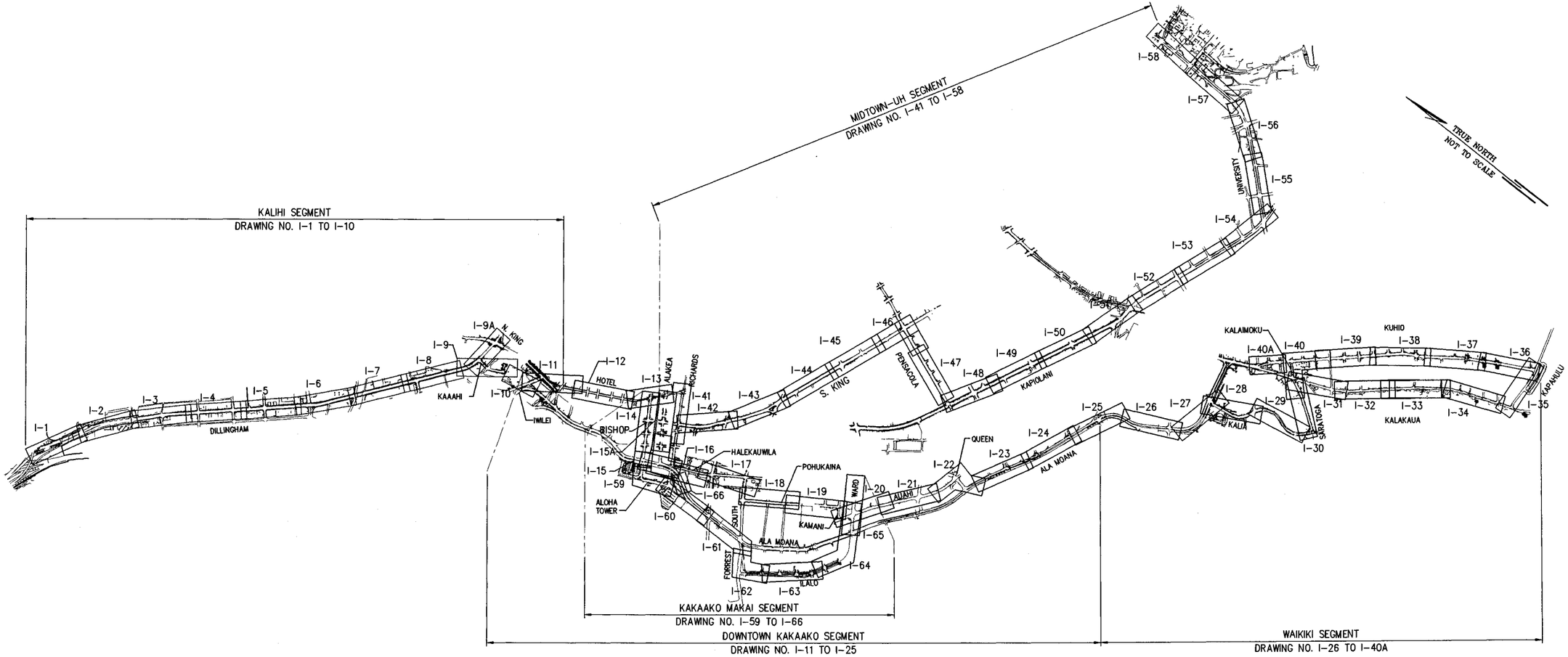
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 1500' 750' 0 1500' 3000'
FULL SIZE SCALE: 1" = 1500'

REGIONAL BUS RAPID TRANSIT KEY MAP – 2

DRAWING NO.
G-2
DATE: 5-24-02 | SHEET NO. 4 OF 142

AR00016457



IN-TOWN BRT ROUTE - KEY MAP

NOT TO SCALE

DISCLAIMER

THE EXISTING TOPOGRAPHICAL AND ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

IN-TOWN BUS RAPID TRANSIT (BRT)
KEY MAP

DRAWING NO. G-3

DATE: 5-24-02 | SHT. NO. 5 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\G-03 IN-TOWN KEY MAP AND INDEX OF DRAWINGS.DWG 05/28/02 10:11 WGH

AR00016458

GENERAL NOTES

1. THE INDICATED LOCATION OF ALL PROPOSED FACILITIES IS CONCEPTUAL. THE INDICATED ALIGNMENTS AND STOP LOCATIONS HAVE BEEN DEVELOPED FOR BUDGETARY PURPOSES AND ARE NOT BE CONSTRUED AS A COMMITMENT BY THE DEPARTMENT OF TRANSPORTATION SERVICES TO ANY SPECIFIC ROUTE ALIGNMENT OR STOP LOCATION.
2. LOCATION OF TRACTION POWER SUPPLY STATIONS IS PRELIMINARY AND SUBJECT TO CHANGE.
3. LIMITS OF WORK FOR EACH SHEET SHALL BE FROM MATCHLINE TO MATCHLINE.
4. TRANSIT CENTERS SHOWN HEREIN ARE OF FOOTPRINTS AND DO NOT INCLUDE ANY PARKING STRUCTURE AS PART OF THESE PLANS.
5. ALL BUS STOPS, PLATFORMS AND PULL OUTS CONFORM TO THE STANDARDS SET FORTH IN THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) AND LOCAL DESIGN CRITERIA.
6. ALL HISTORIC CURB SEGMENTS (BASALT) SHALL BE REMOVED AND REUSED PER THE PLANS, EXCEPT AT CURB-SIDE BRT PLATFORMS, WHICH SHALL BE REMOVED, SALVAGED AND STORED AT A LOCATION DESIGNATED BY THE CITY AND COUNTY OF HONOLULU.
7. FOR EXACT PAVEMENT RECONSTRUCTION LIMITS, REFER TO PAVEMENT MANAGEMENT REPORT.
8. FOR LANDSCAPING AND SIDEWALK PATTERNING REFER TO COST ESTIMATE FOR THE IN-TOWN SEGMENT OF THIS PROJECT.
9. CENTERLINE STATIONING SHOWN HEREIN IS FOR PROJECT BRT ROUTE AND NOT INTENDED TO BE A ROADWAY CENTERLINE.
10. FOR ADA COMPLIANCE IMPROVEMENTS, REFER TO THE ADA DETAIL IMPROVEMENT PLAN.
11. BRT SEMI-EXCLUSIVE LANES WILL ALLOW BRT, BUSES AND RIGHT-TURNING VEHICLES.

ABBREVIATIONS

ADA	AMERICANS WITH DISABILITIES ACT
A.C.	ASPHALT CONCRETE
A/C	AIR CONDITIONING
APPROX.	APPROXIMATE
ARV	AIR RELEASE VALVE
AVE.	AVENUE
BC	BOTTOM CURB
BFP	BACK FLOW PREVENTER
BOT.	BOTTOM
BW	BOTTOM WALL
BLVD.	BOULEVARD
BRT	BUS RAPID TRANSIT
CATV	CABLE TELEVISION
C.B.	CATCH BASIN
C.L.	CHAIN LINK
℄	CENTER LINE
CMU	CONCRETE MASONRY UNIT
C.O.	CLEAN OUT
COL.	COLUMN
COMM.	COMMUNICATION
CONC.	CONCRETE
CONT.	CONTINUOUS
CRM	CONCRETE RUBBLE MASONRY
D/DIA.	DIAMETER OR DRAIN
DEIS	DRAFT ENVIRONMENTAL IMPACT STATEMENT
D.I.	DRAIN INLET
D.S.	DOWN SPOUT
DWY.	DRIVEWAY
E/ELEC.	ELECTRIC
E/EXIST.	EXISTING
ELEV./EL.	ELEVATION
F.A. BOX	FIRE ALARM BOX
F.H.	FIRE HYDRANT
FM	FORCE MAIN
FT.	FEET
G	GAS
G.I.	GRATED INLET
GMH	GAS MANHOLE
GND.	GROUND
G.P.	GUARD POST/GUY POLE/GATE POST
G.W.	GUY WIRE
GV	GAS VALVE
H	HEIGHT
H.B.	HOSE BIB
HECo.	HAWAIIAN ELECTRIC COMPANY
HECo. BOX	HAWAIIAN ELECTRIC COMPANY BOX
HECo. MH	HAWAIIAN ELECTRIC COMPANY MANHOLE
HH	HAND HOLE
HTCo.	VERIZON TELEPHONE COMPANY
HTCo. BOX	VERIZON TELEPHONE COMPANY BOX
HTCo. MH	VERIZON TELEPHONE COMPANY MANHOLE
ICV	IRRIGATION CONTROL VALVE
IN.	INCH
INV.	INVERT
JTS	JOINT TRUNKING SYSTEM
KV	KILO-VOLTS
L.P.	LAMP POLE
MH	MANHOLE
MTCo. MH	VERIZON TELEPHONE COMPANY MANHOLE
N	NEW
NO.	NUMBER
O/H	OVERHEAD
PAV'T.	PAVEMENT
PCC	PORTLANT CEMENT CONCRETE
P.M.	PARKING METER
P.P.	POWER POLE
PSL	PEDESTRIAN SIGNAL LIGHT
REINF.	REINFORCEMENT
R/W	RIGHT-OF-WAY
S	SEWER OR SPREAD
SC	SIGNAL CORPS
SCMH	SIGNAL CORPS MANHOLE
SDMH	STORM DRAIN MANHOLE
S.L.	STREET LIGHT
SLB	STREET LIGHT BOX
SMH	SEWER MANHOLE
SPR.	SPRINKLER
ST.	STREET
ST. NAME	STREET NAME
STA.	STATION
TC	TOP CURB
TDC	TOP DROP CURB
TMK	TAX MAP KEY
TP	TOP PIPE
TPSS	TRACTION POWER SUPPLY STATION
TRC	TOP ROLLED CURB
TS	TOP STEM
TSL	TRAFFIC SIGNAL LIGHT
TSLB	TRAFFIC SIGNAL LIGHT BOX
TV	TOP VALVE
TW	TOP WALL
TYP.	TYPICAL
U.P.	UTILITY POLE
U.P./S.L.	UTILITY POLE W/STREET LIGHT
W	WATER
WM	WATER METER
WMH	WATER MANHOLE
WV	WATER VALVE BOX
X-WALK	CROSS WALK

LEGENDS

- AT&T MH
- AT&T BOX
- BACK FLOW PREVENTER
- CATV BOX
- C.B./MH OR SDMH
- CLEAN OUT
- COLUMN
- COMM. BOX
- DRAIN INLET
- DRY STAND PIPE
- ELEC. BOX OR HECo. BOX
- ELEC. MH OR HECo. MH
- FIRE ALARM BOX
- FIRE HYDRANT
- GAS MH
- GAS VALVE
- GUARD RAIL
- GUY WIRE
- HOSE BIB
- HTCo. BOX
- HTCo. MH
- ICV BOX
- ICV
- LAMP POLE
- RESIDENTIAL MAILBOX
- MTCo. MH
- PEDESTRIAN SIGNAL LIGHT
- SEWER MH
- SIGNAL CORPS MH
- SIGN
- STREET LIGHT
- STREET LIGHT BOX
- SPRINKLER
- TRAFFIC SENSOR
- TRAFFIC SIGNAL LIGHT
- TRAFFIC/PEDESTRIAN SIGNAL LIGHT
- TRAFFIC SIGNAL LIGHT BOX
- UTILITY POLE W/STREET LIGHT
- U.S. POSTAL MAILBOX
- WATER MH
- WATER METER
- WATER VALVE
- (NEW) NEW

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- ⇐BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL AND ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

IN-TOWN BUS RAPID TRANSIT (BRT)
GENERAL NOTES, ABBREVIATIONS
AND LEGENDS

DRAWING NO.
G-4
DATE: 5-24-02 | SHT. NO. 6 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\G-04 GENERAL NOTES, ABBREVIATIONS AND LEGENDS.DWG 11/25/01 14:15 WGH

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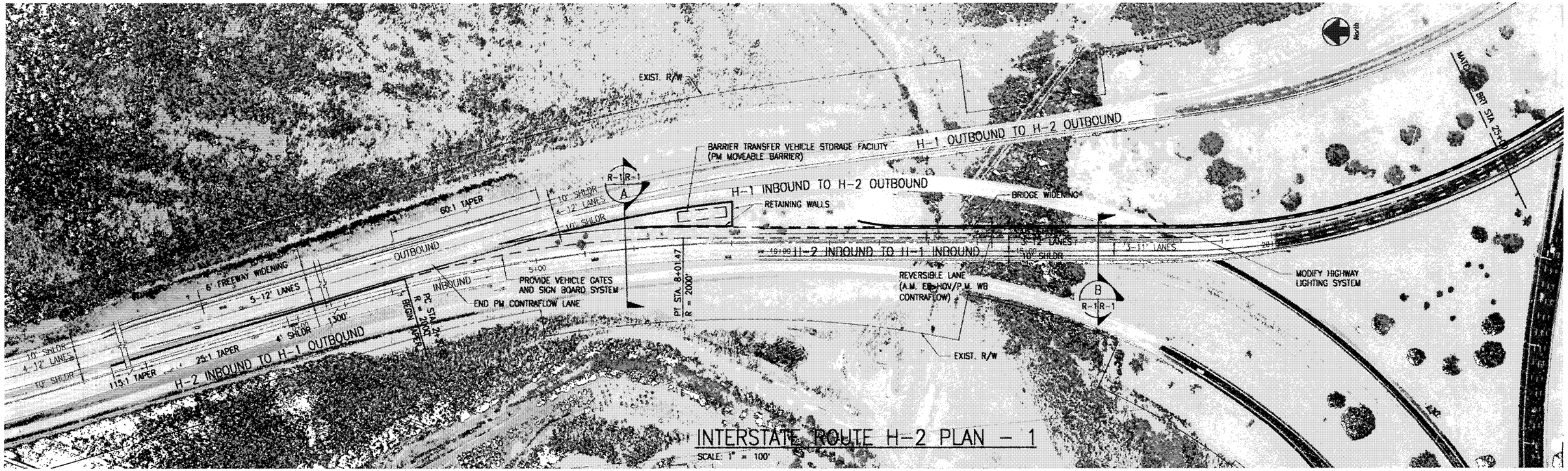
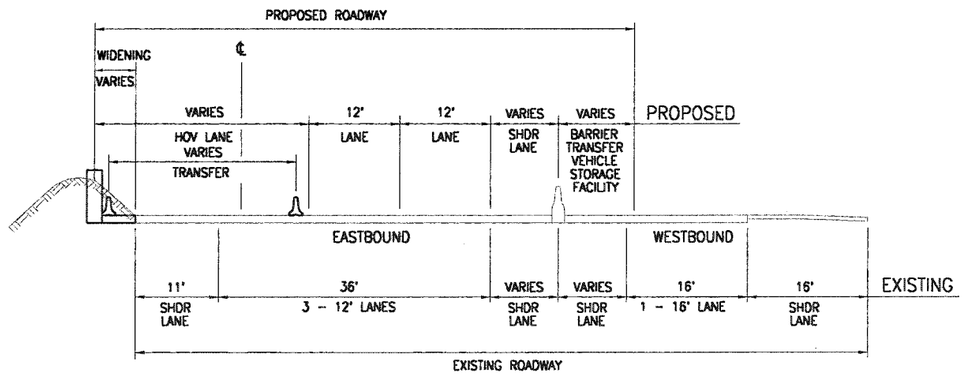


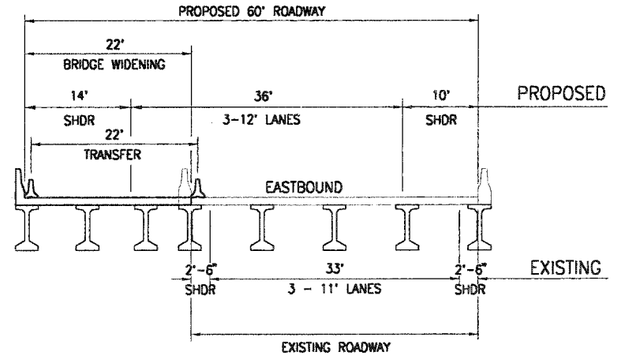
INTERSTATE ROUTE H-2 PLAN - 1

SCALE: 1" = 100'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-1 R-1 H-2 (AT-GRADE)
1" = 10' (STA. 0+00 TO 13+00)



B R-1 R-1 H-2 INBOUND TO H-1 INBOUND BRIDGE
1" = 10' (STA. 13+00 TO 20+50)

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

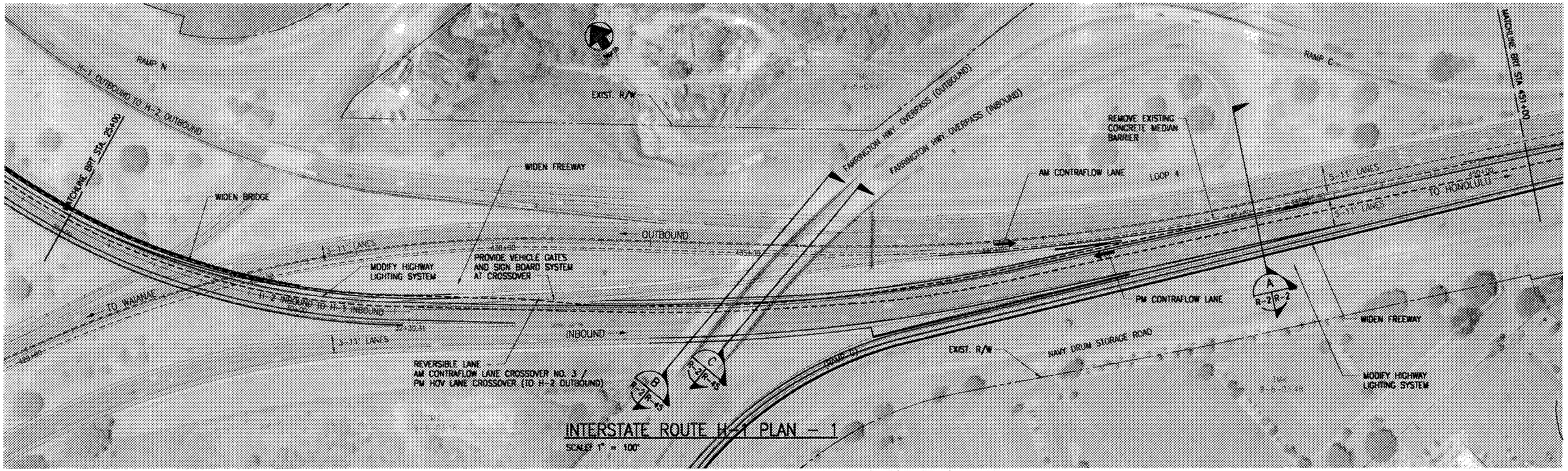
SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

INTERSTATE ROUTE H-2
PLAN AND SECTIONS - 1

DRAWING NO.
R-1

DATE: 5-24-02 SHEET NO. 7 OF 142

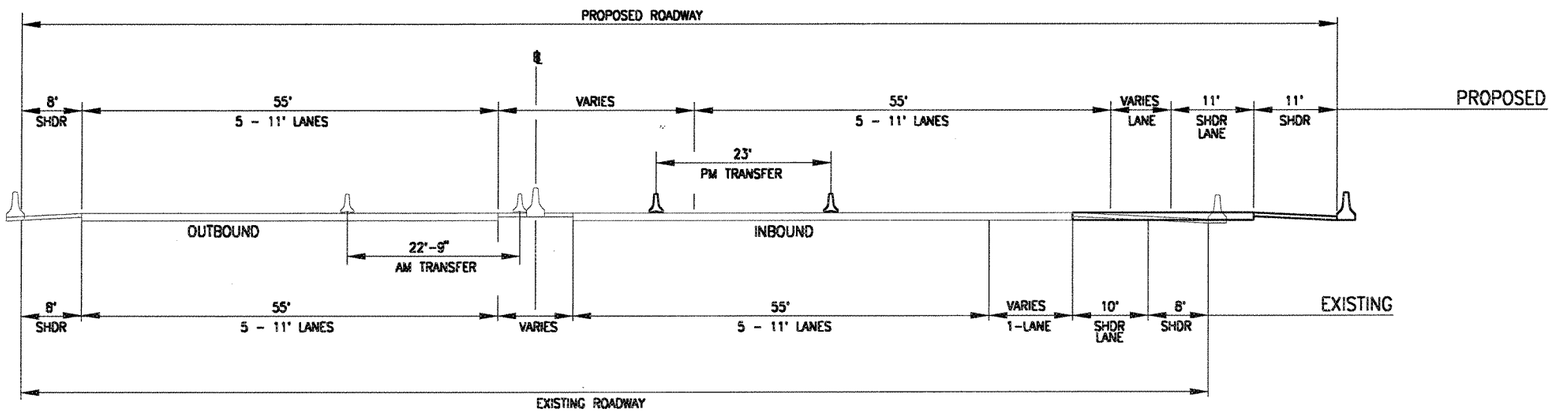
AR00016460



INTERSTATE ROUTE H-1 PLAN – 1

SCALE 1" = 100'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-2 R-2 H-1 (AT-GRADE)

1" = 10' (STA. 447+10 TO 452+85)

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200' — FULL SIZE SCALE: 1" = 100'

SCALE: 10' 5' 0 10' 20' — FULL SIZE SCALE: 1" = 10'

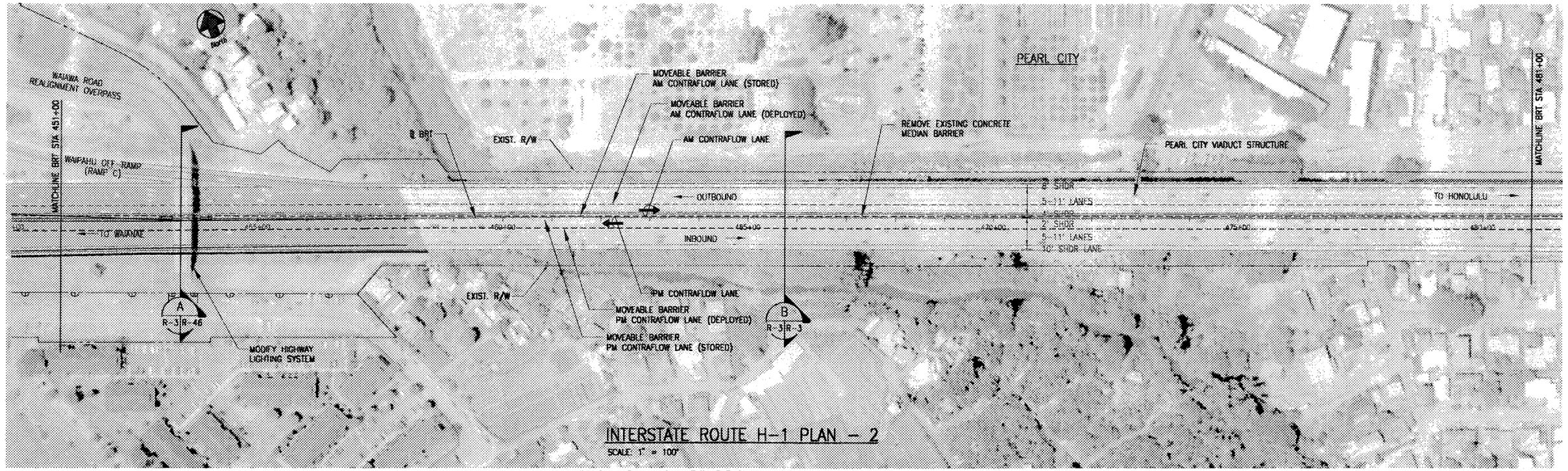
INTERSTATE ROUTE H-1
PLAN AND SECTIONS – 1

DRAWING NO.

R-2

DATE: 5-24-02 | SHEET NO. 8 OF 142

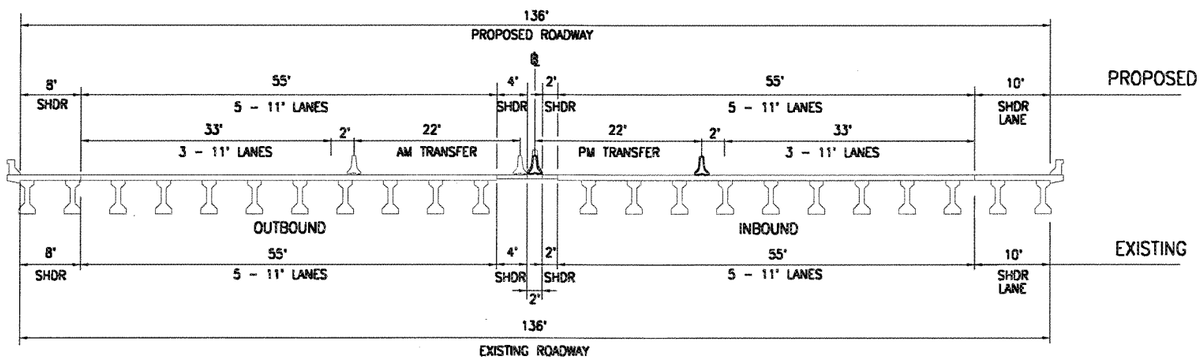
AR00016461



INTERSTATE ROUTE H-1 PLAN – 2

SCALE: 1" = 100'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



B R-3 R-3 H-1 (VIADUCT SECTION)
1" = 10' (STA. 458+14 TO 517+10)

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

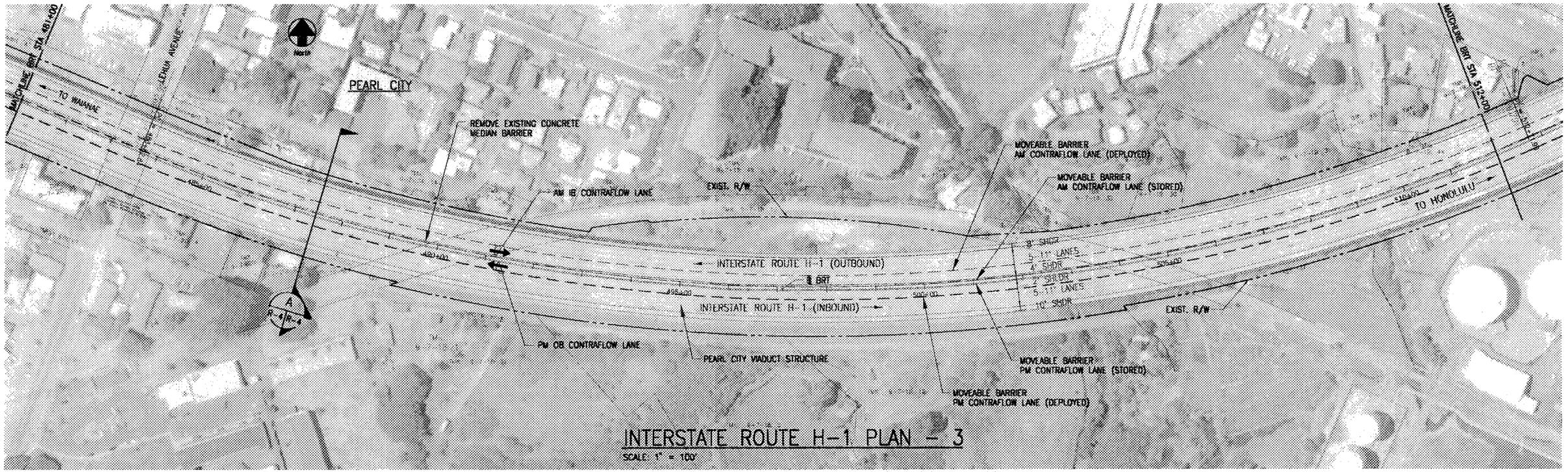
SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

INTERSTATE ROUTE H-1
PLAN AND SECTION – 2

DRAWING NO.
R-3
DATE: 5-24-02 SHEET NO. 9 OF 142

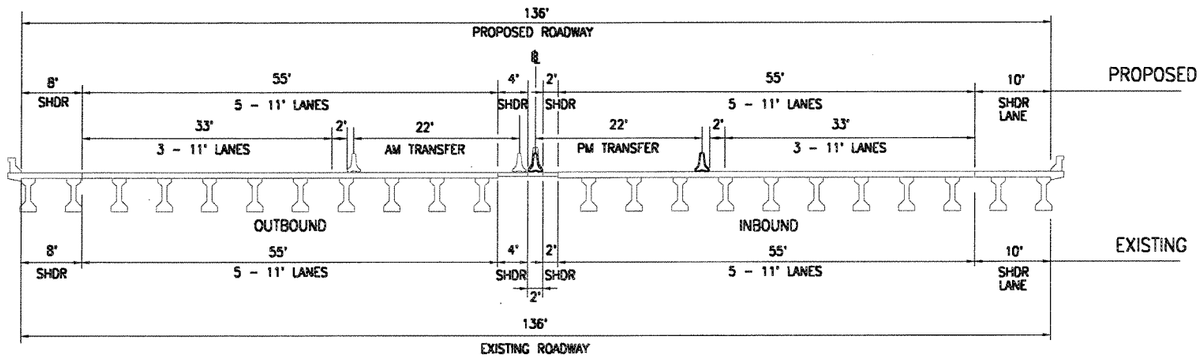
AR00016462



INTERSTATE ROUTE H-1 PLAN - 3

SCALE: 1" = 100'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-4 R-4 H-1 (VIADUCT SECTION)

1" = 10' (STA. 458+14 TO 517+10)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

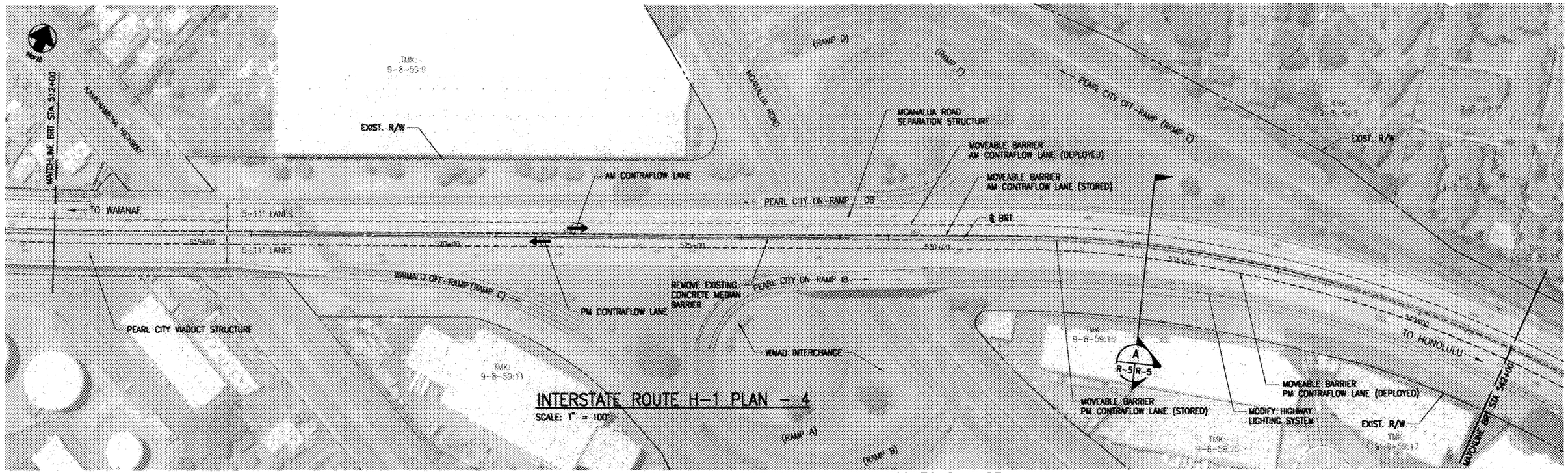
SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

INTERSTATE ROUTE H-1
PLAN AND SECTION - 3

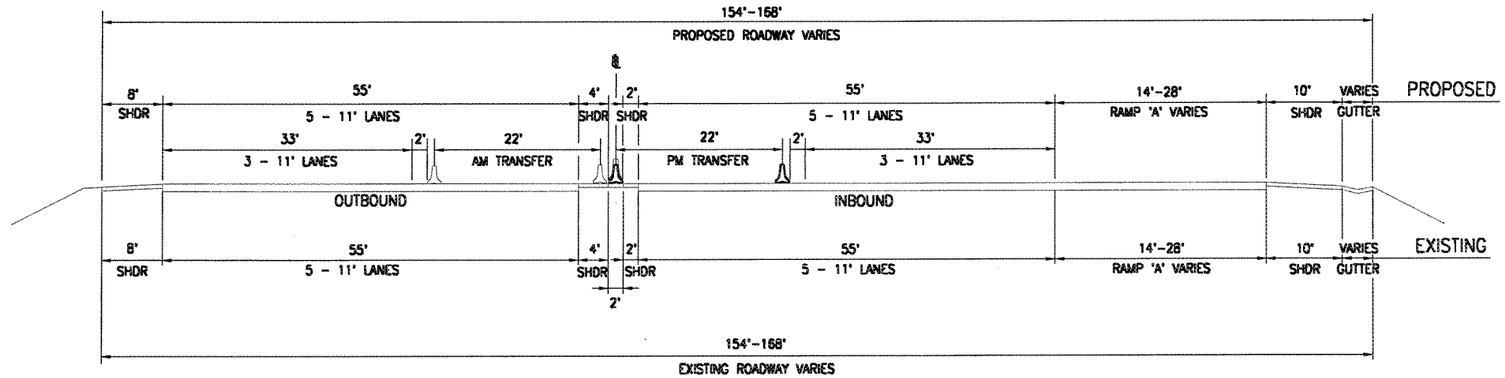
DRAWING NO.
R-4

DATE: 5-24-02 SHEET NO. 10 OF 142

AR00016463



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-5 R-5 H-1 (AT-GRADE)
1" = 10' (STA. 531+43 TO 541+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

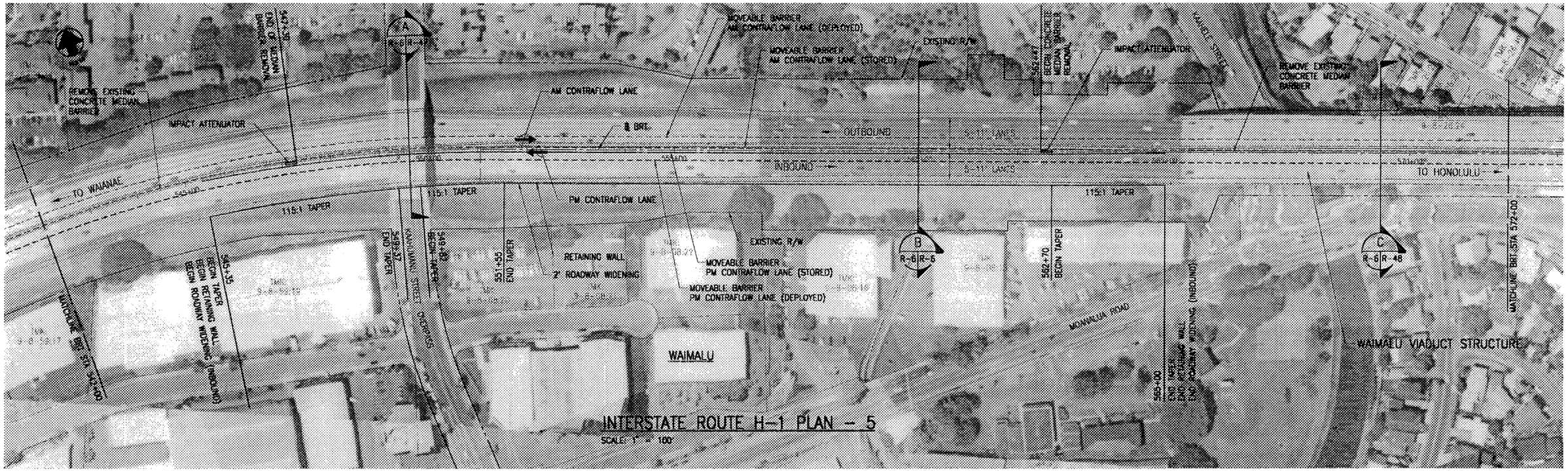
SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

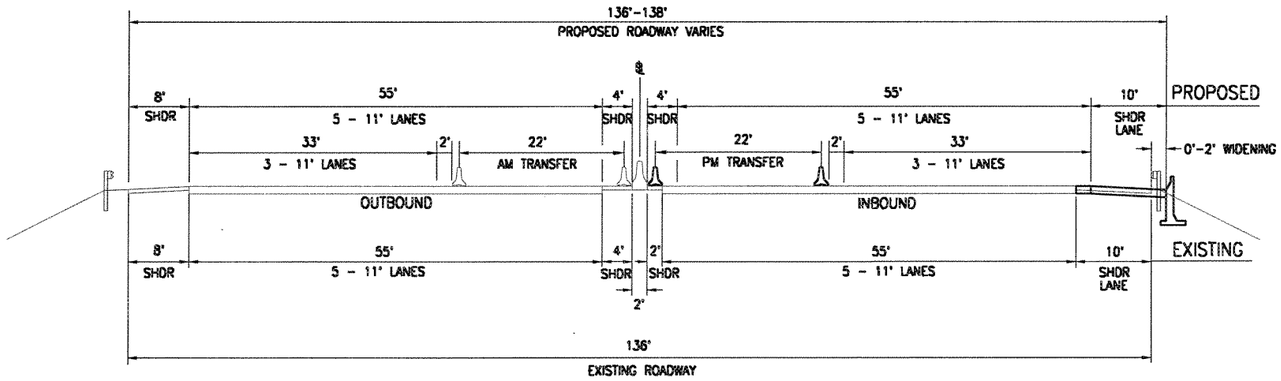
INTERSTATE ROUTE H-1 PLAN AND SECTION - 4

DRAWING NO.
R-5
DATE: 5-24-02 SHEET NO. 11 OF 142

AR00016464



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



B R-6 R-6 H-1 (AT-GRADE)
1" = 10' (STA. 550+00 TO 565+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

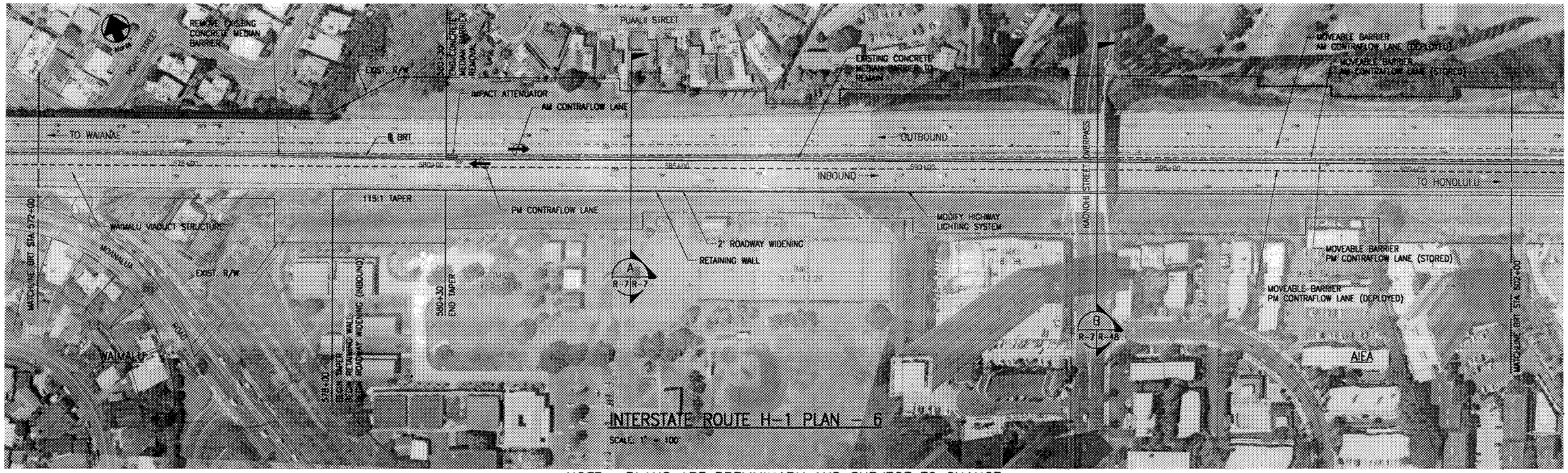
PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'
SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

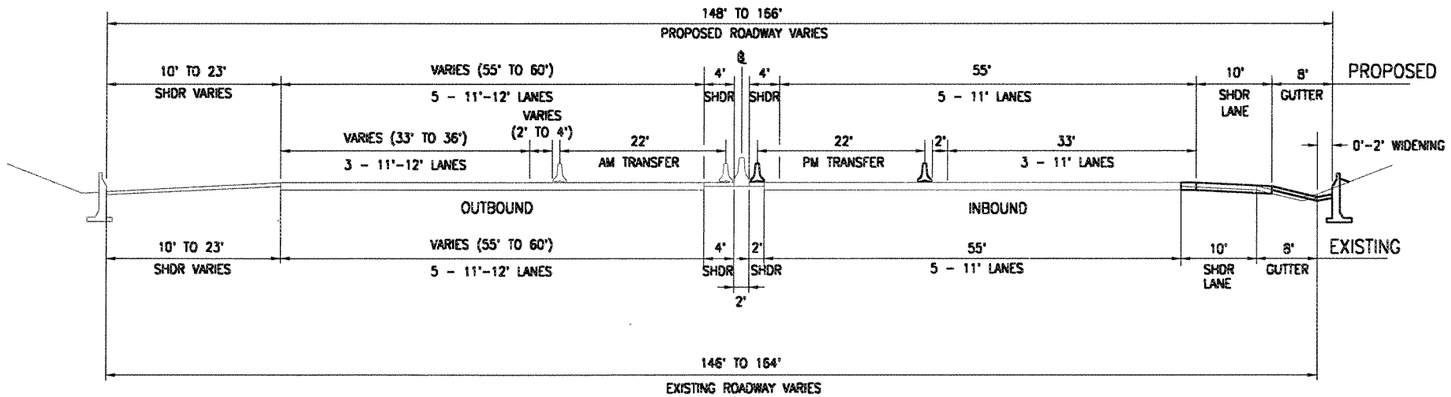
INTERSTATE ROUTE H-1
PLAN AND SECTION - 5

DRAWING NO.
R-6
DATE: 5-24-02 SHEET NO. 12 OF 142

AR00016465



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A / R-7 R-7 H-1 (AT-GRADE)
1" = 10' (STA. 580+30 TO 593+10)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

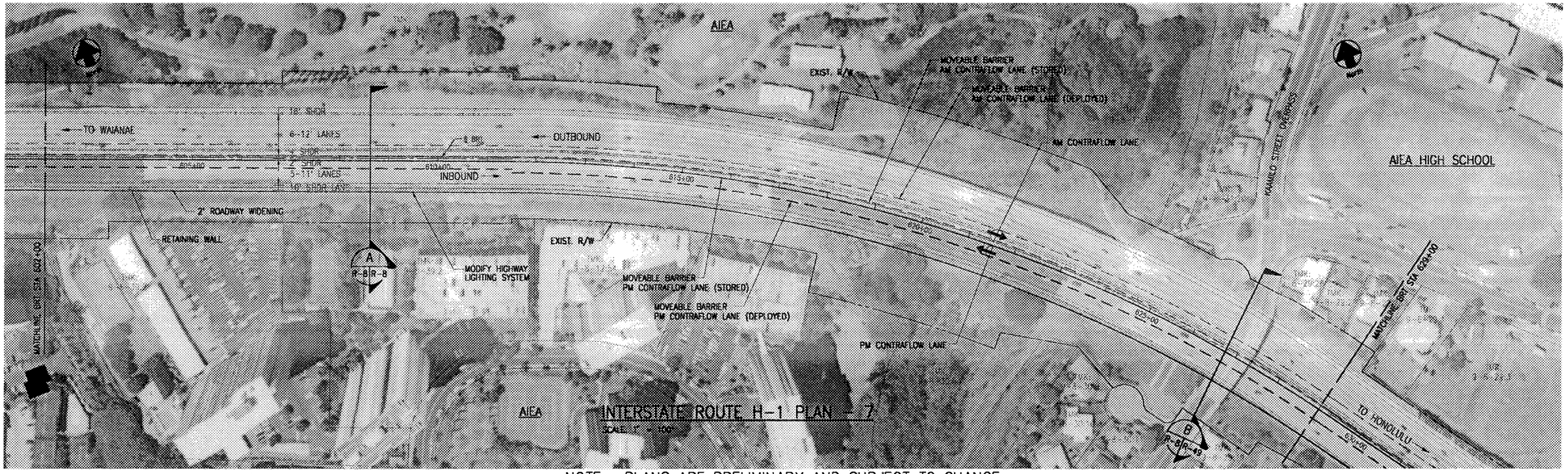
SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

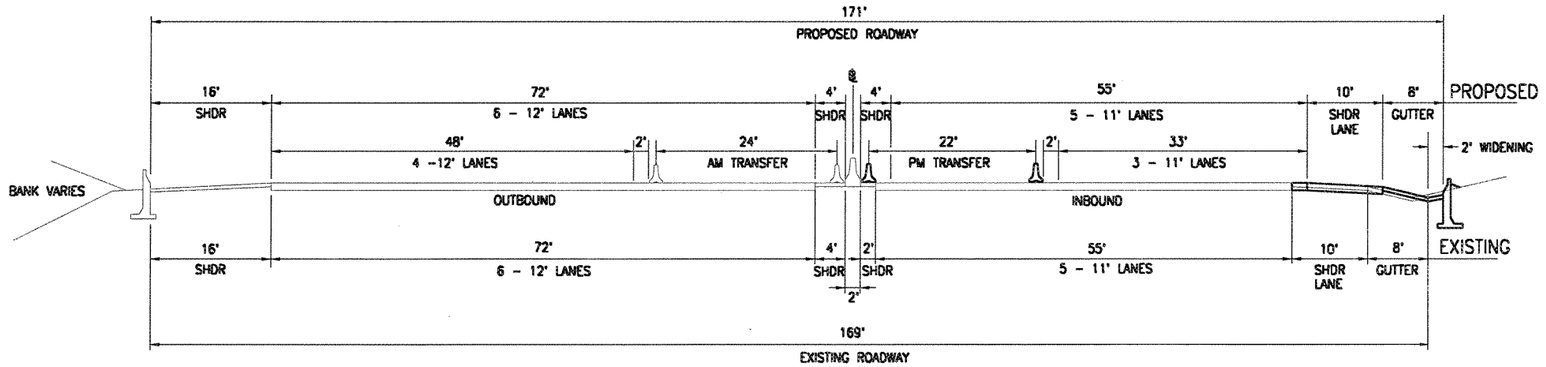
INTERSTATE ROUTE H-1 PLAN AND SECTION – 6

DRAWING NO.
R-7
DATE: 5-24-02 SHEET NO. 13 OF142

AR00016466



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-8 R-8 H-1 (AT-GRADE) 1" = 10' (STA. 593+90 TO 617+25)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

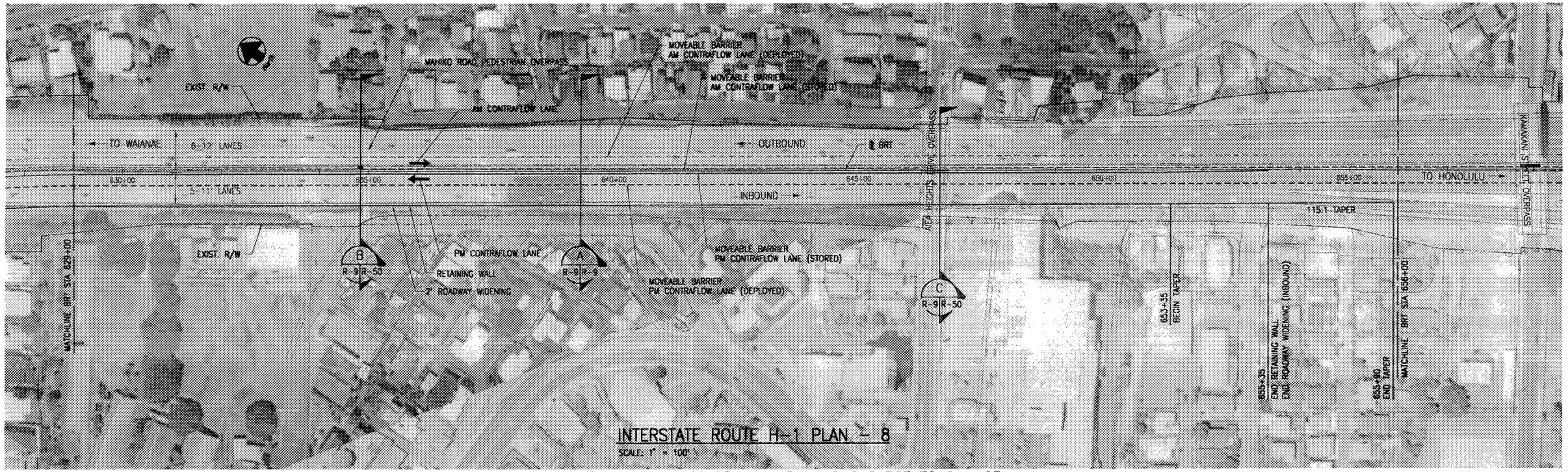
SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

INTERSTATE ROUTE H-1
PLAN AND SECTION - 7

DRAWING NO.
R-8
DATE: 5-24-02 | SHEET NO. 14 OF 142

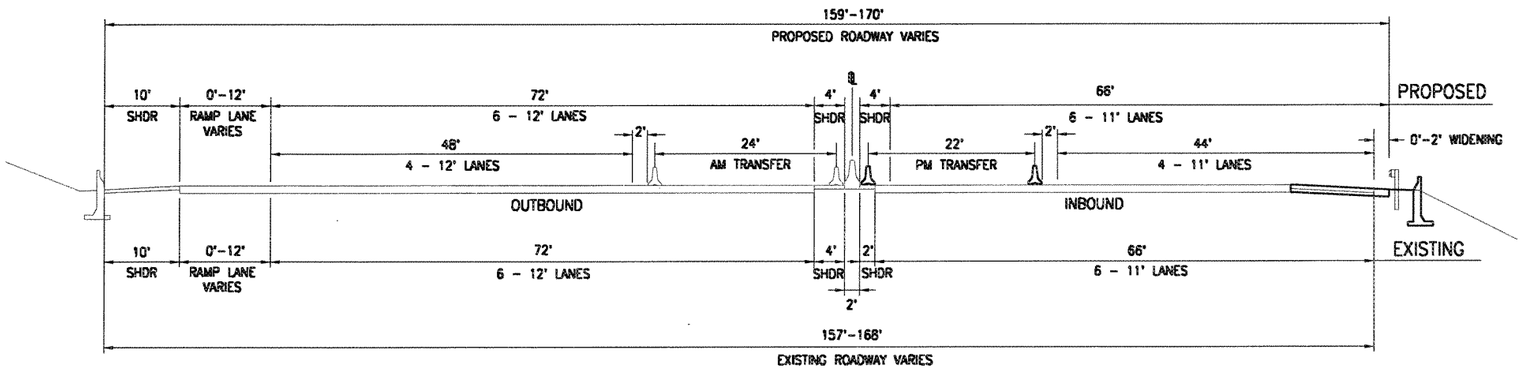
AR00016467



INTERSTATE ROUTE H-1 PLAN – 8

SCALE: 1" = 100'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-9 R-9 H-1 (AT-GRADE)

1" = 10' (STA. 635+00 TO 653+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 15, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

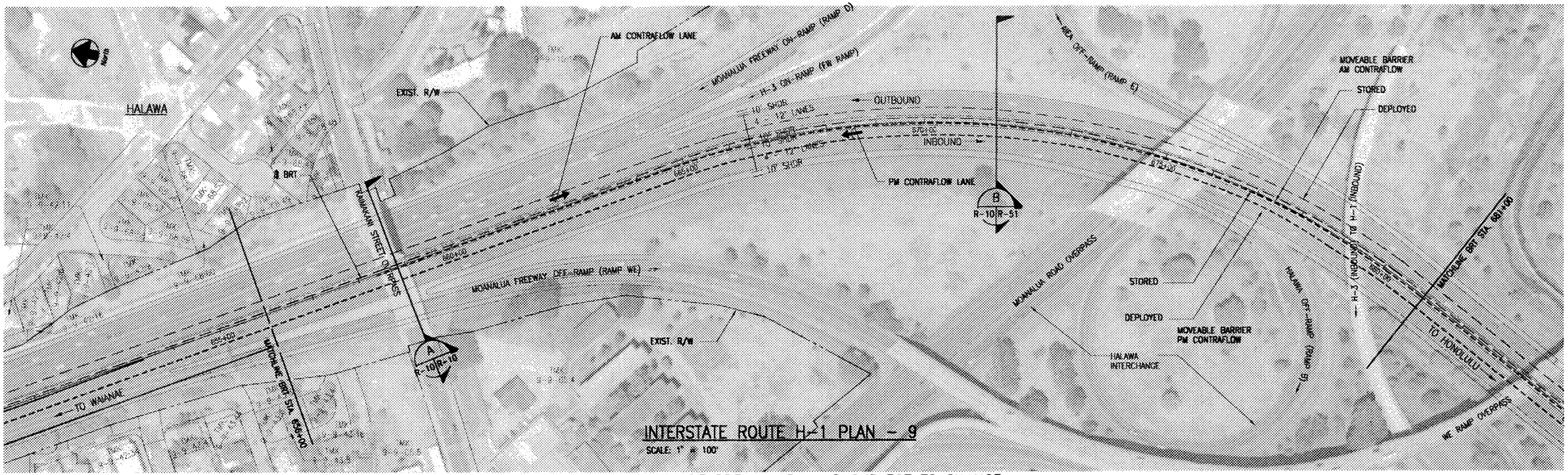
SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

INTERSTATE ROUTE H-1
PLAN AND SECTION – 8

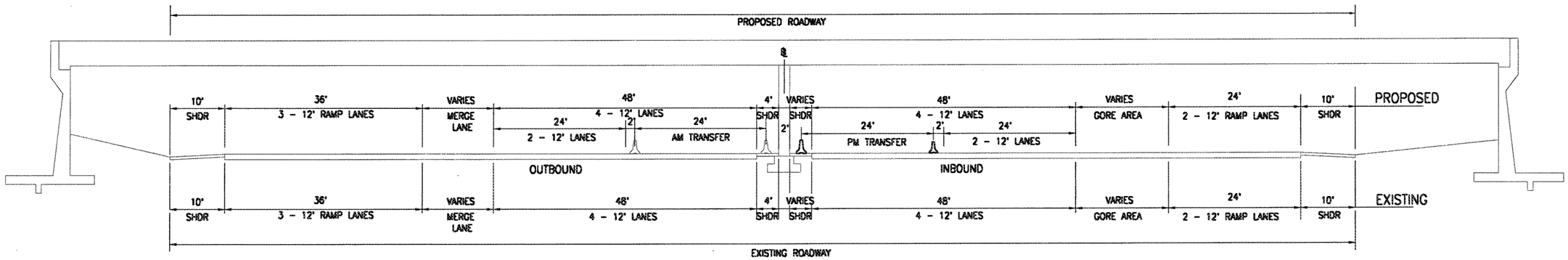
DRAWING NO.
R-9

DATE: 5-24-02 SHEET NO. 15 OF 142

AR00016468



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



KAIMAKANI STREET OVERPASS

A R-10|R-10 1" = 10' (STA. 658+50 TO 659+05)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

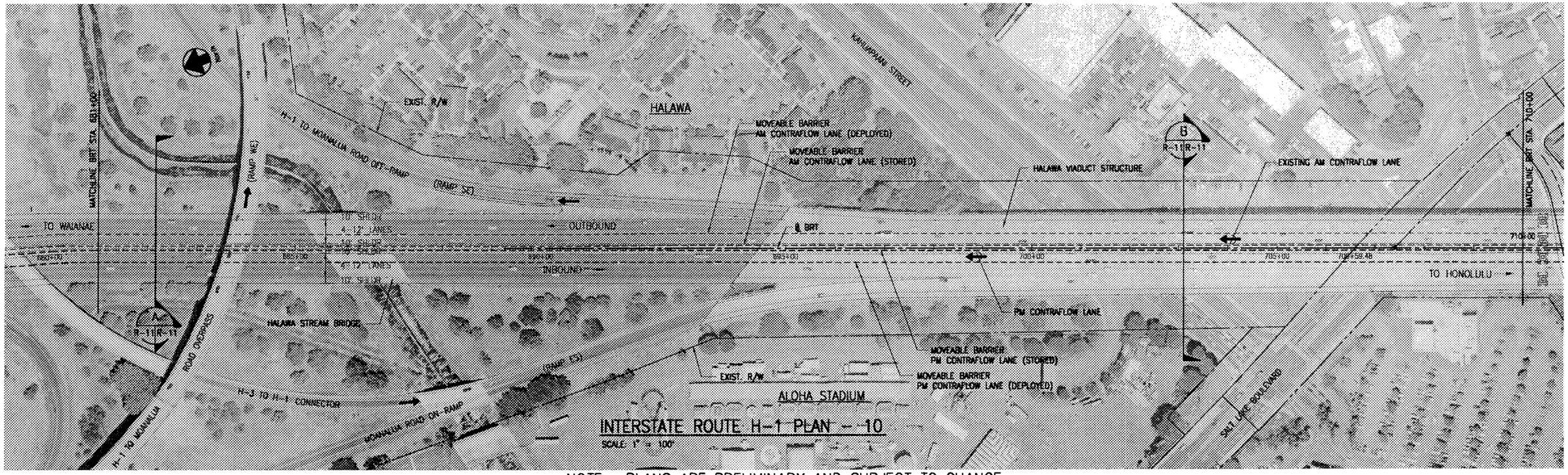
SCALE: 100' 50' 0 100' 200' — FULL SIZE SCALE: 1" = 100'

SCALE: 10' 5' 0 10' 20' — FULL SIZE SCALE: 1" = 10'

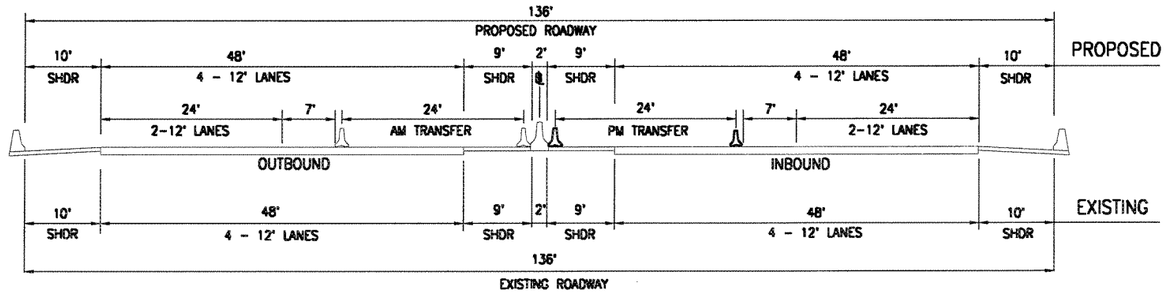
INTERSTATE ROUTE H-1
PLAN AND SECTION - 9

DRAWING NO.
R-10
DATE: 5-24-02 SHEET NO. 16 OF 142

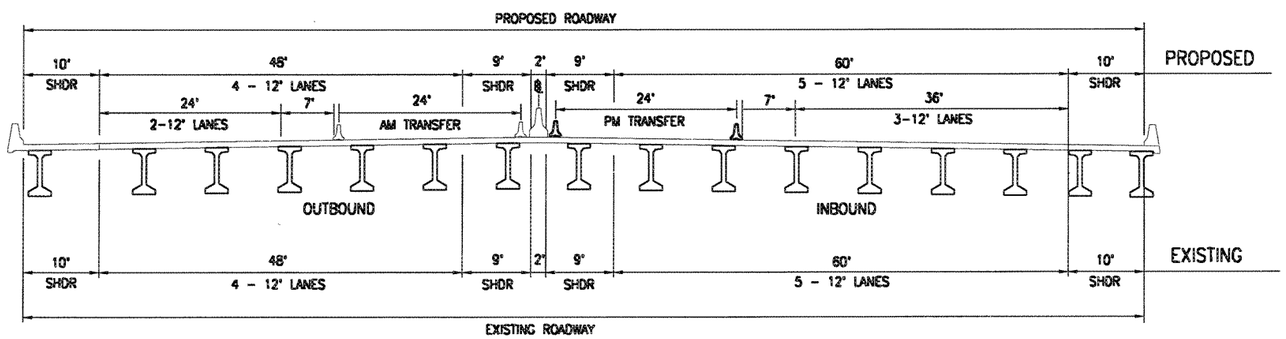
AR00016469



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A H-1 (AT-GRADE)
R-11 R-11 1" = 10' (STA. 681+00 TO 694+40)



B H-1 (VIADUCT SECTION)
R-11 R-11 1" = 10' (STA. 694+40 TO STA. 710+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

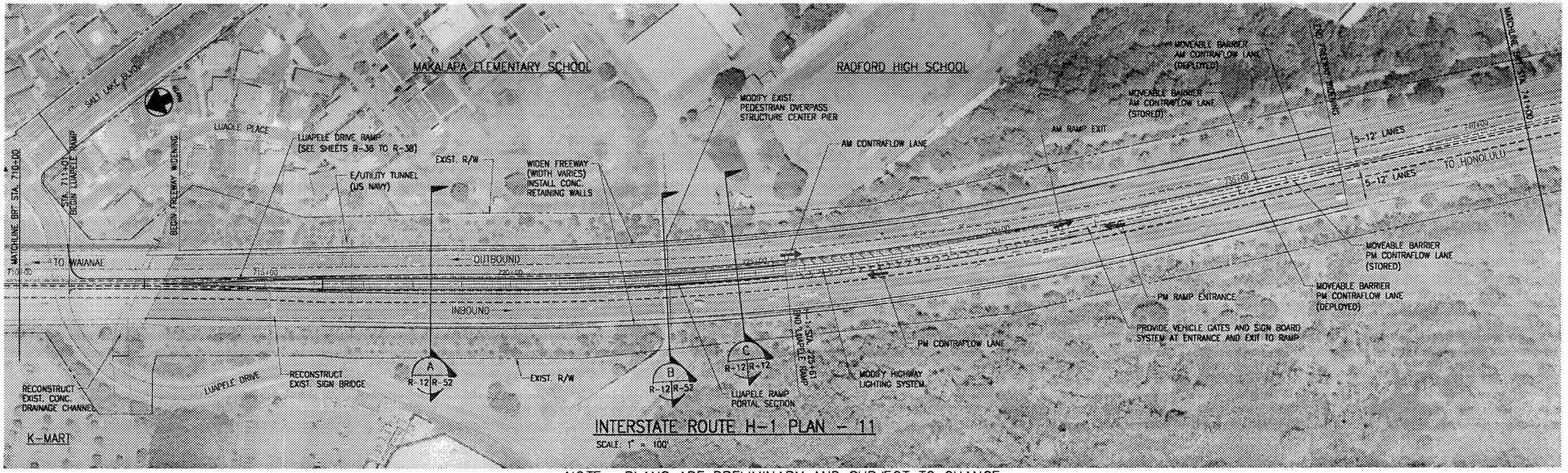
SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

INTERSTATE ROUTE H-1
PLAN AND SECTION - 10

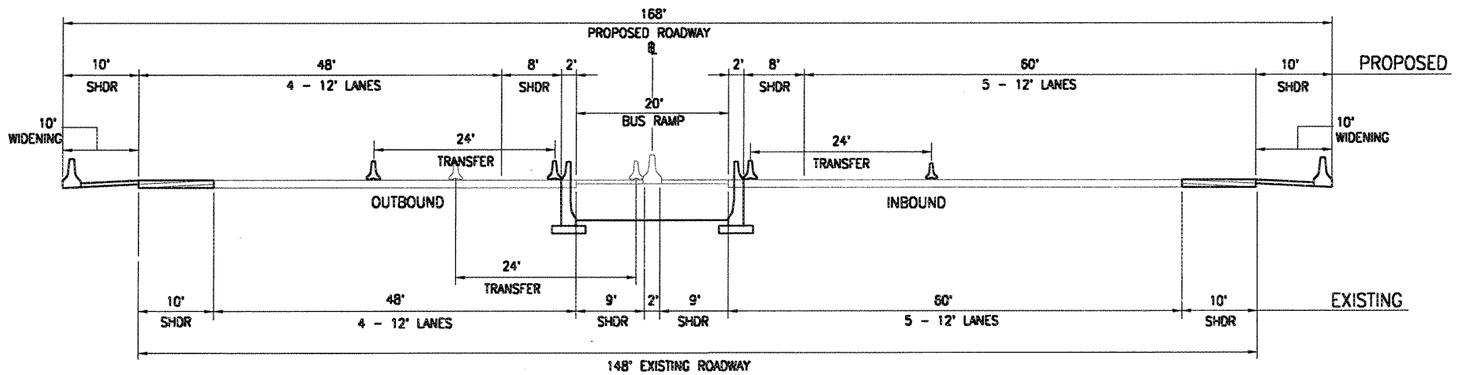
DRAWING NO.
R-11

DATE: 5-24-02 SHEET NO. 17 OF 142

AR00016470



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



C R-12 R-12 H-1 (AT-GRADE)
1" = 10' (716+18 TO 725+61)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

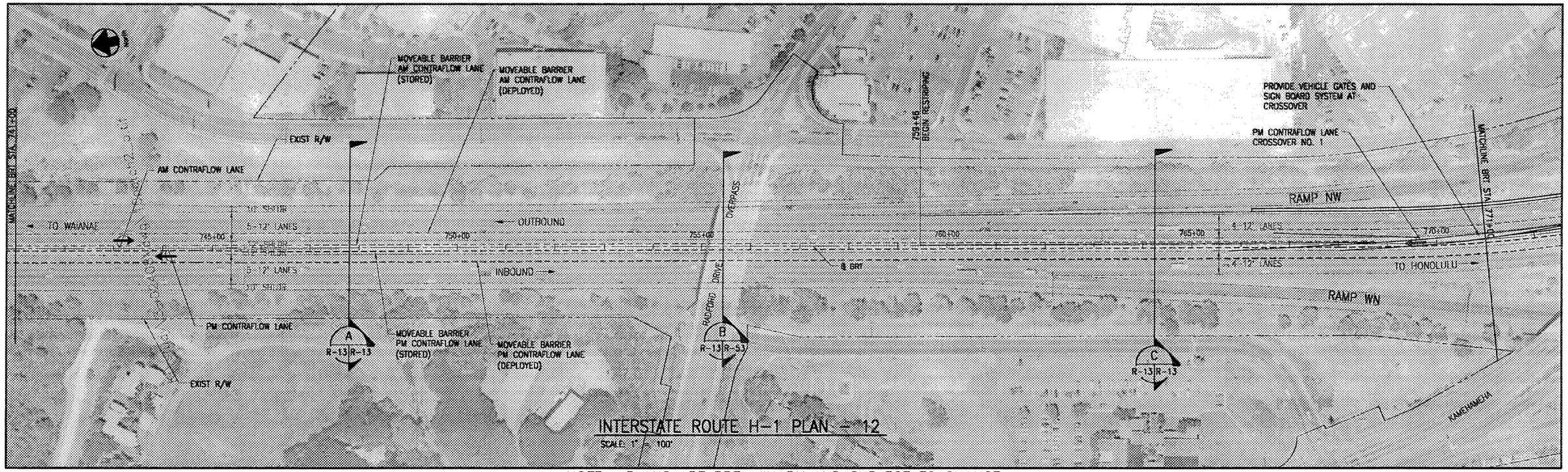
SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

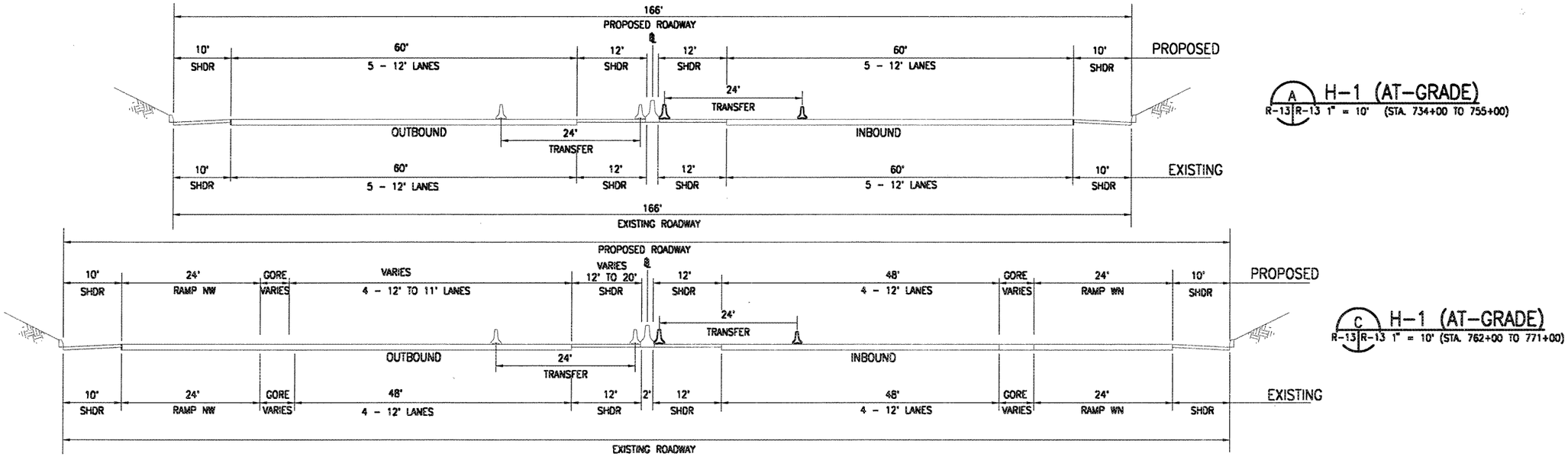
INTERSTATE ROUTE H-1
PLAN AND SECTION - 11

DRAWING NO.
R-12
DATE: 5-24-02 SHEET NO. **18** OF **142**

AR00016471



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

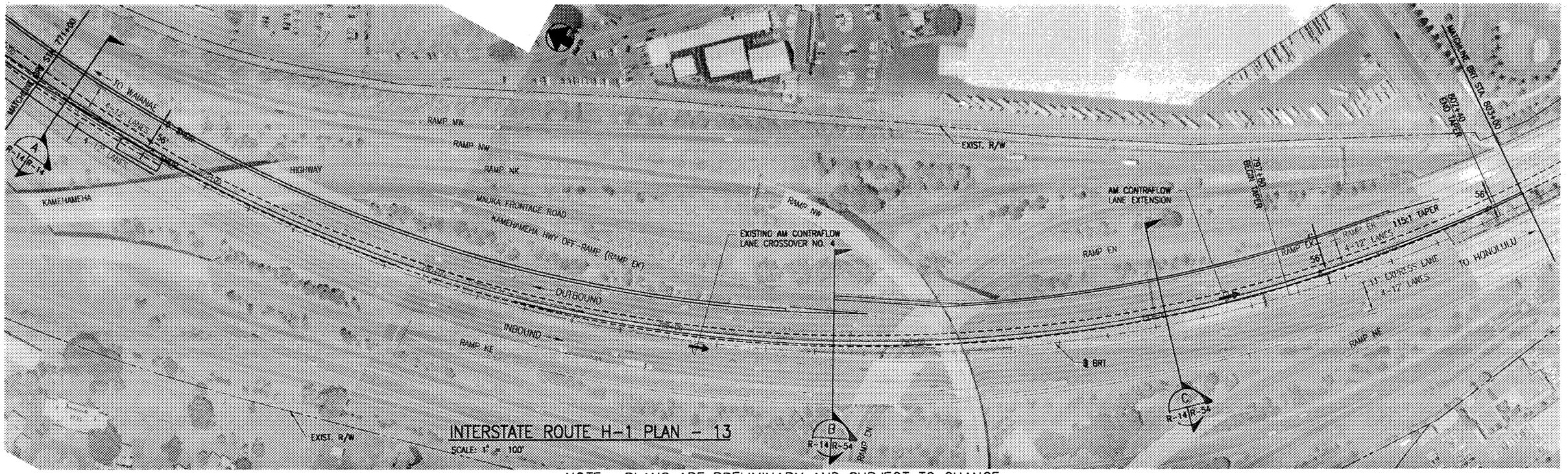
SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

INTERSTATE ROUTE H-1 PLAN AND SECTION - 12

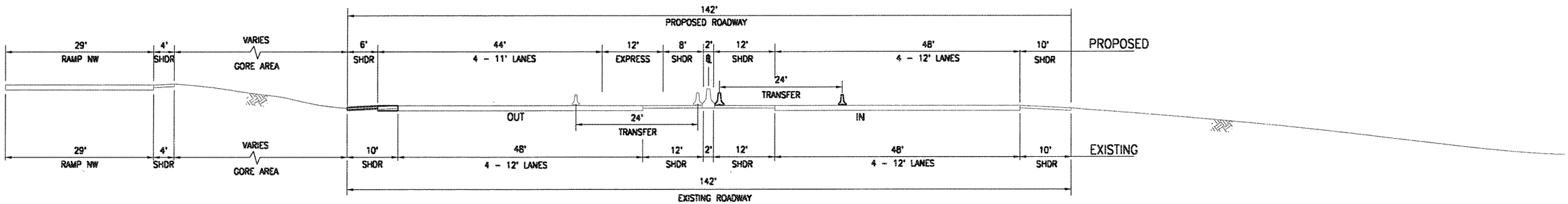
DRAWING NO.
R-13

DATE: 5-24-02 | SHEET NO. 19 OF 142

AR00016472



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-14 R-14 H-1 (AT-GRADE)
1" = 10' (STA. 771+00 TO 780+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

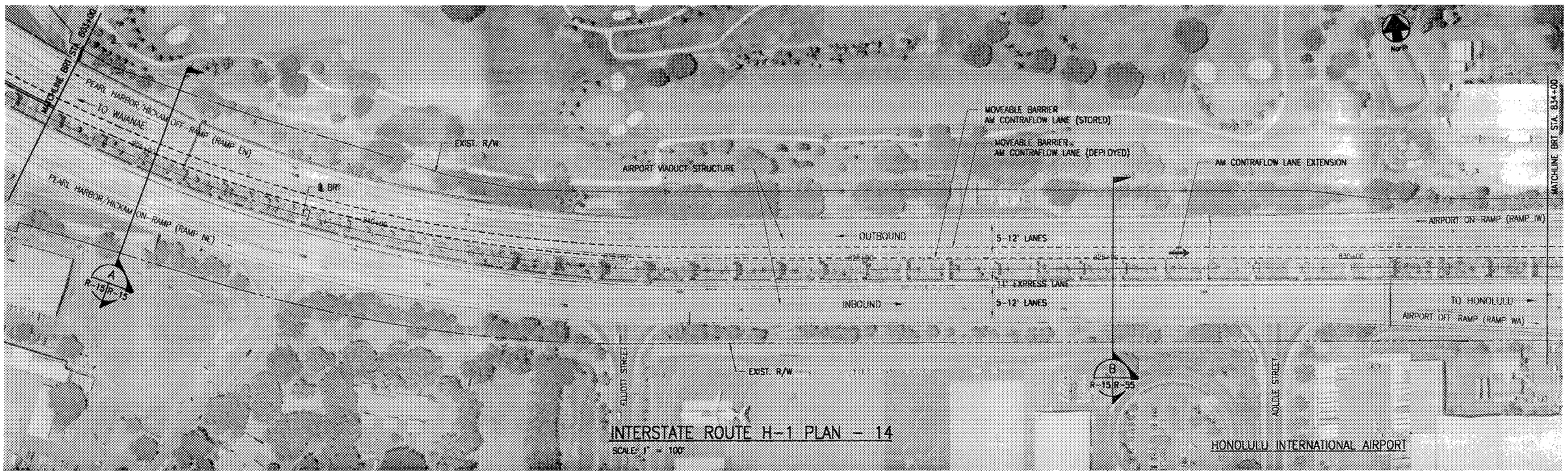
SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

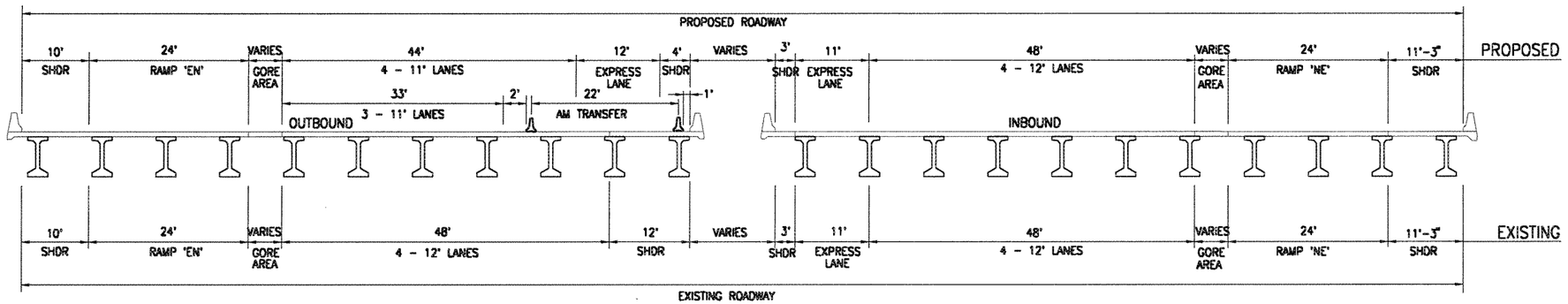
INTERSTATE ROUTE H-1
PLAN AND SECTION - 13

DRAWING NO.
R-14
DATE: 5-24-02 SHEET NO. **20** OF **142**

AR00016473



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-15 R-15 H-1 (VIADUCT SECTION) 1" = 10' (STA. 801+60 TO STA. 809+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

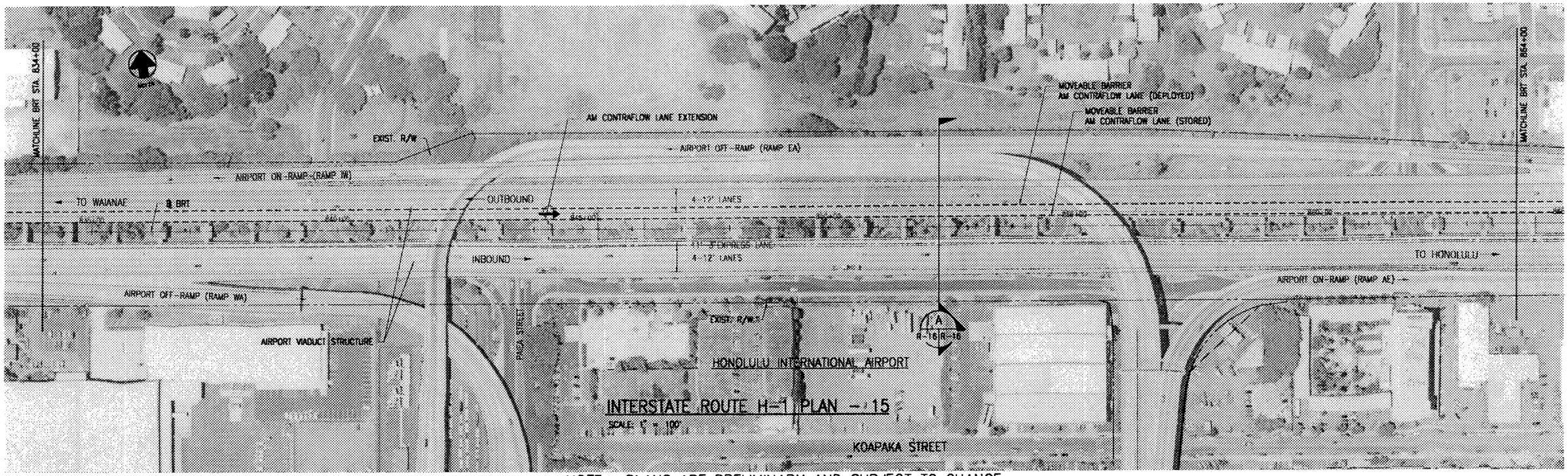
SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

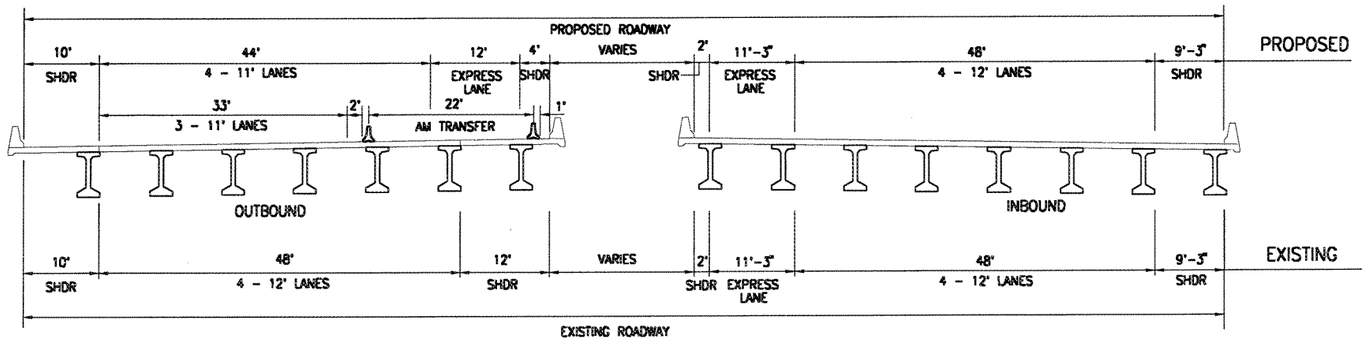
INTERSTATE ROUTE H-1
PLAN AND SECTION - 14

DRAWING NO.
R-15
DATE: 5-24-02 SHEET NO. 21 OF 142

AR00016474



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-16 R-16 H-1 (VIADUCT SECTION)
1" = 10' (STA. 837+70 TO STA. 863+60)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

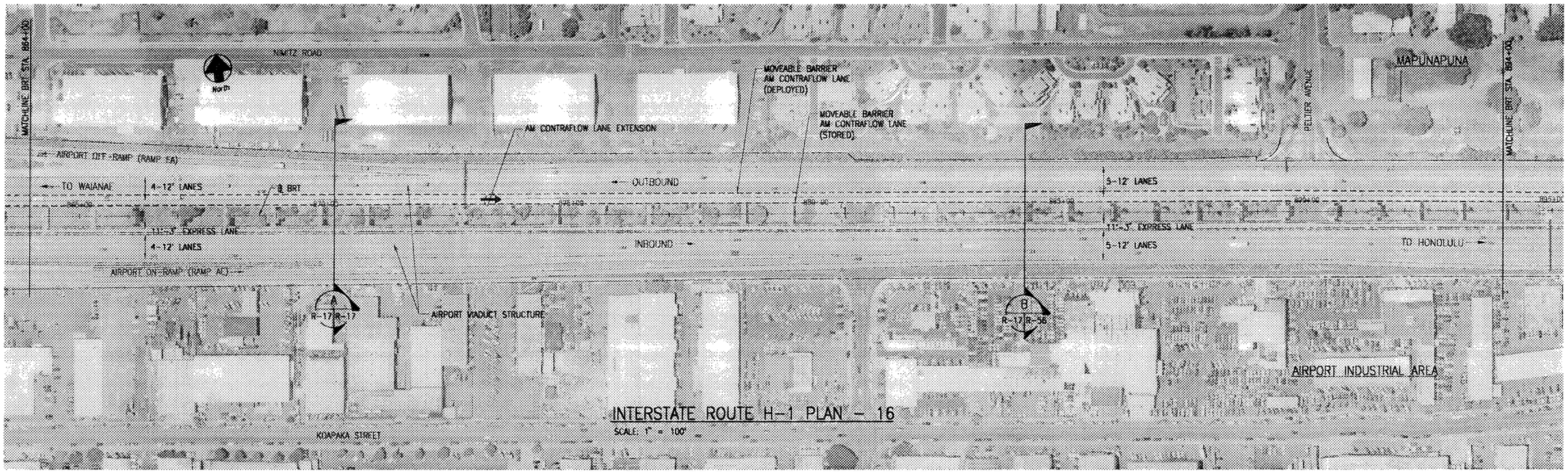
SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

INTERSTATE ROUTE H-1
PLAN AND SECTION - 15

DRAWING NO.
R-16

DATE: 5-24-02 SHEET NO. 22 OF 142

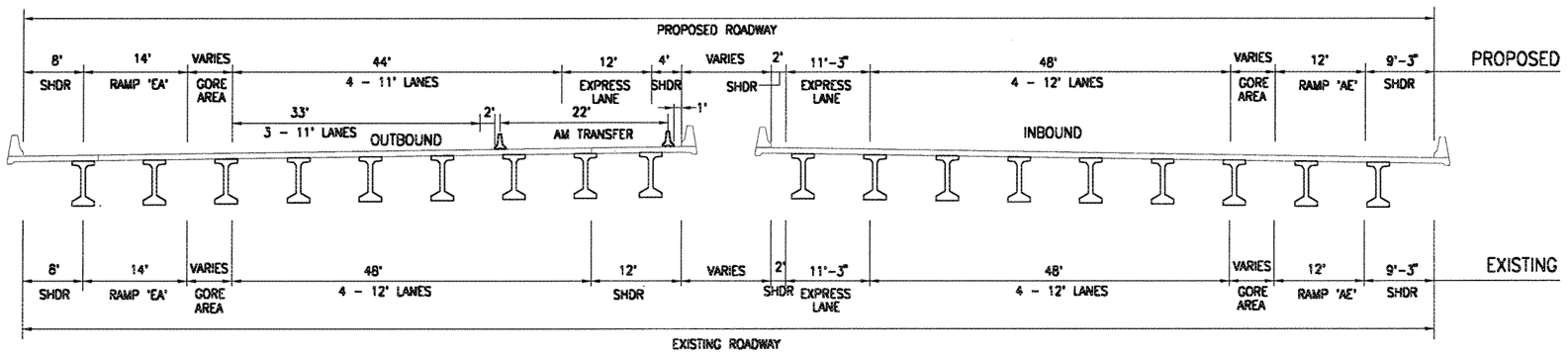
AR00016475



INTERSTATE ROUTE H-1 PLAN - 16

SCALE: 1" = 100'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-17 R-17 H-1 (VIADUCT SECTION)

1" = 10' (STA. 864+25 TO STA. 883+20)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200' — FULL SIZE SCALE: 1" = 100'

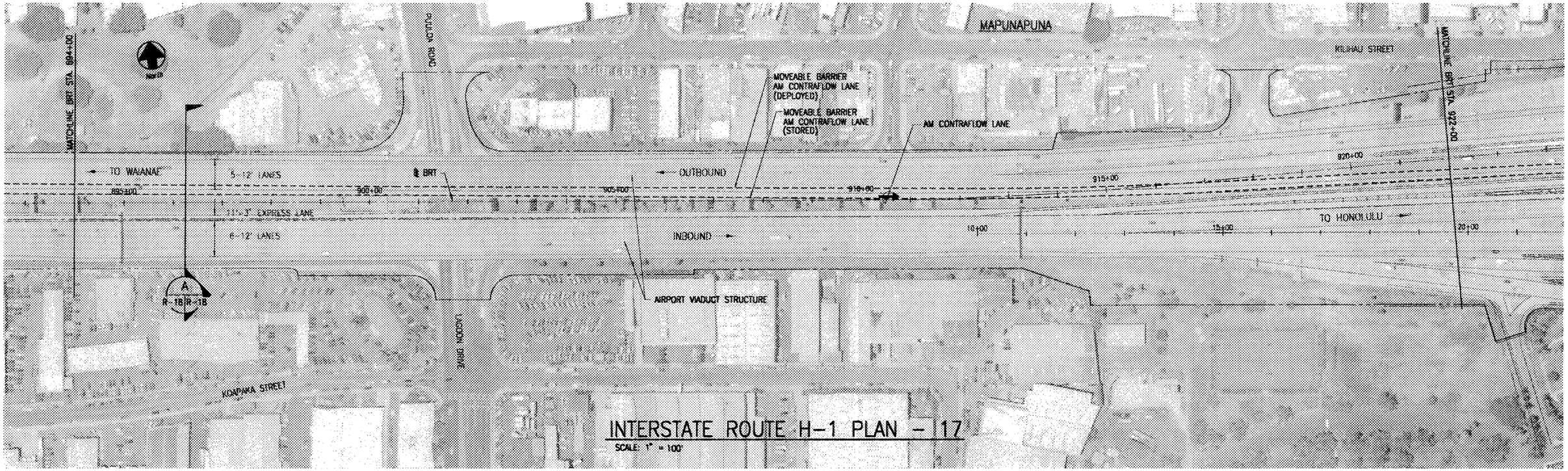
SCALE: 10' 5' 0 10' 20' — FULL SIZE SCALE: 1" = 10'

INTERSTATE ROUTE H-1 PLAN AND SECTION - 16

DRAWING NO. **R-17**

DATE: 5-24-02 SHEET NO. **23** OF 142

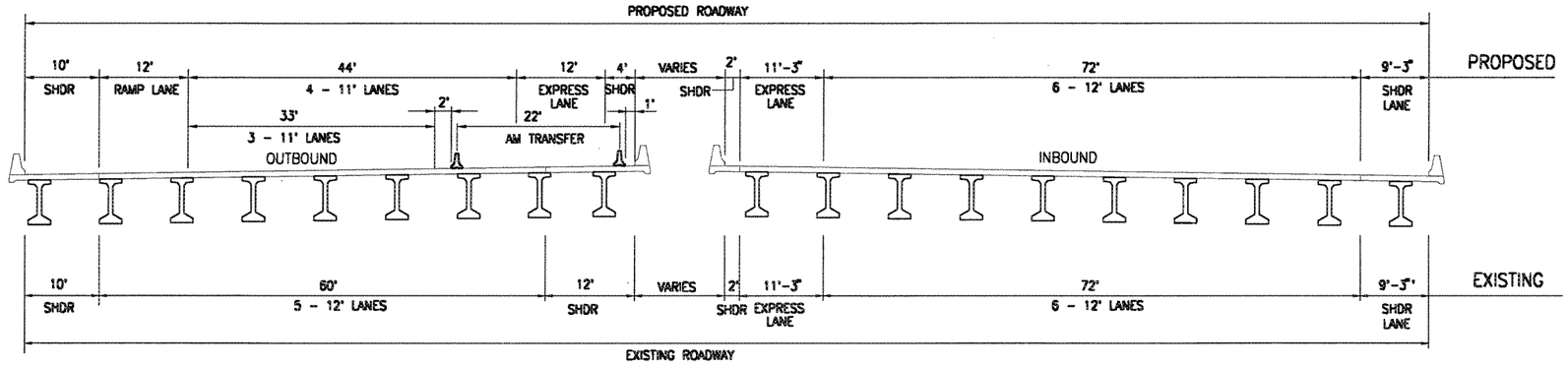
AR00016476



INTERSTATE ROUTE H-1 PLAN - 17

SCALE: 1" = 100'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-18 R-18 H-1 (VIADUCT SECTION)

1" = 10' (STA. 894+40 TO STA. 902+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

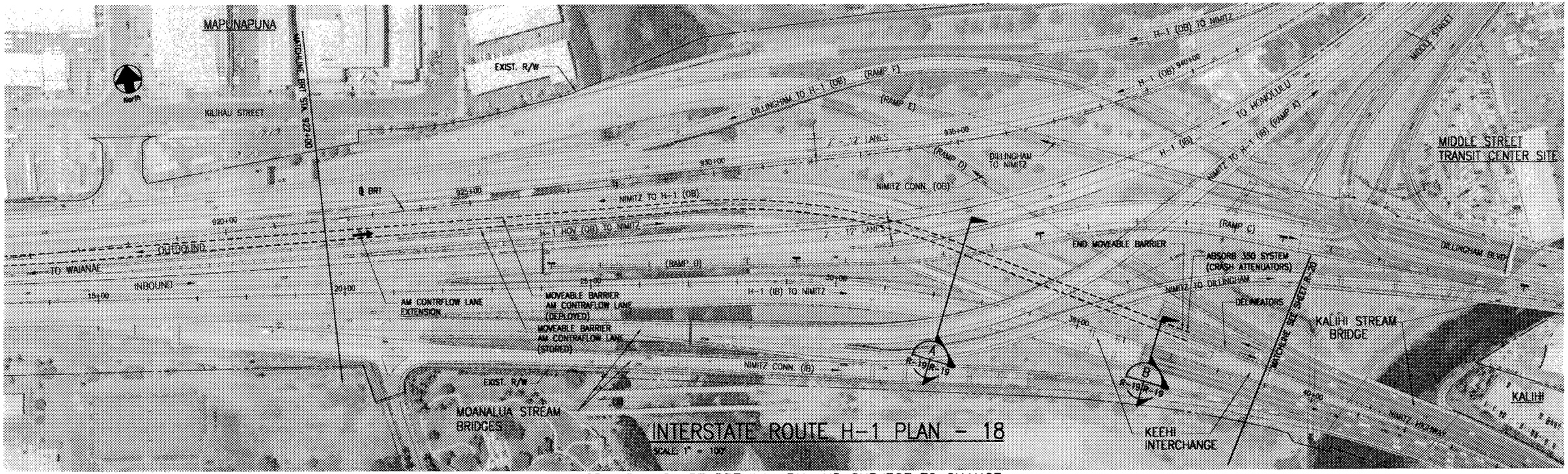
SCALE: 100' 50' 0 100' 200' — FULL SIZE SCALE: 1" = 100'

SCALE: 10' 5' 0 10' 20' — FULL SIZE SCALE: 1" = 10'

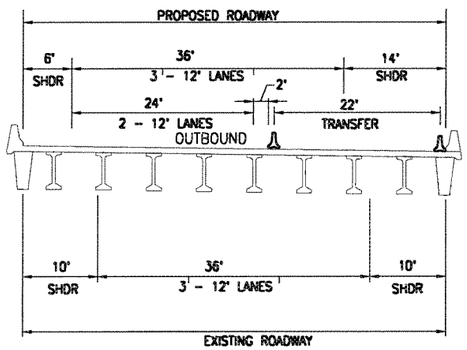
INTERSTATE ROUTE H-1
PLAN AND SECTION - 17

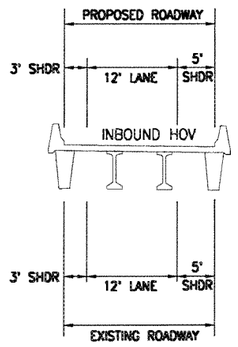
DRAWING NO.
R-18
DATE: 5-24-02 | SHEET NO. 24 OF 142

AR00016477

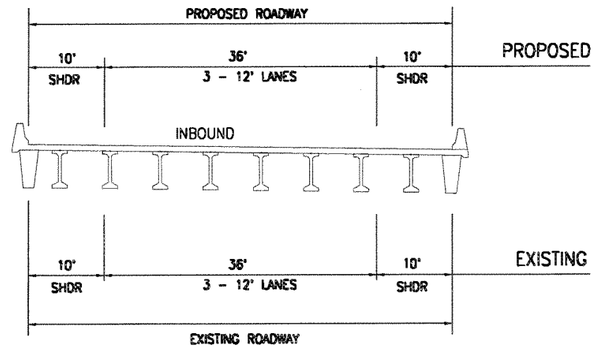


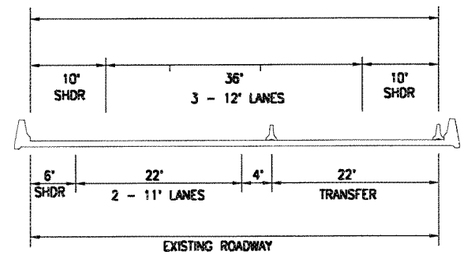
NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE





A NIMITZ CONNECTOR
R-19 R-19 1" = 10'





B KEEHI INTERCHANGE
R-19 R-19 1" = 10'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

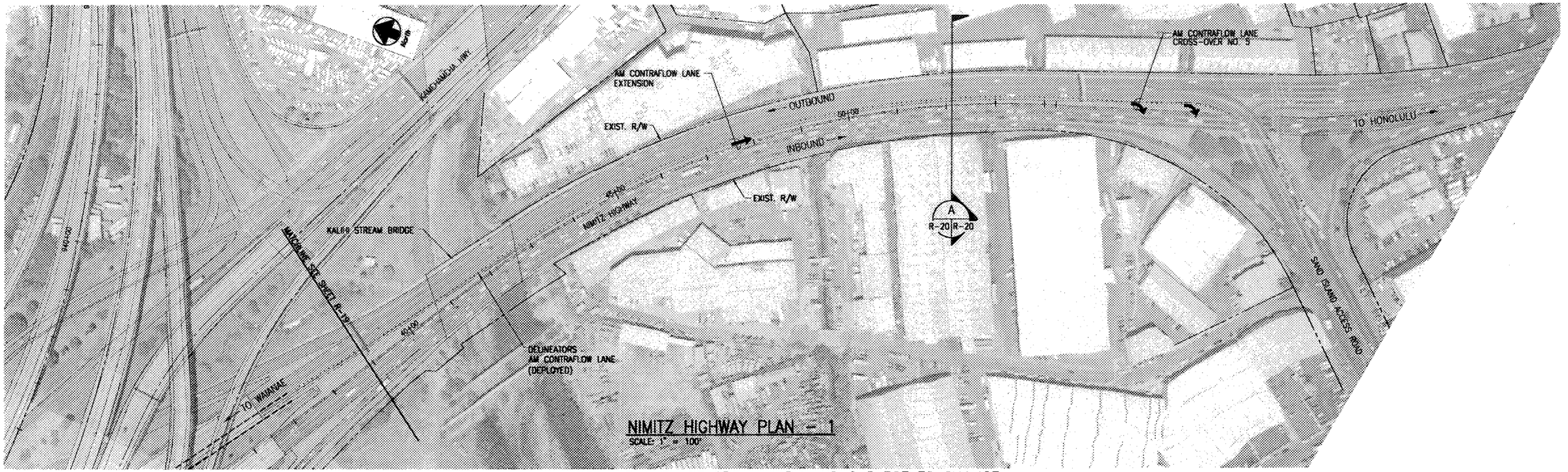
SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

INTERSTATE ROUTE H-1
PLAN AND SECTION - 18

DRAWING NO.
R-19

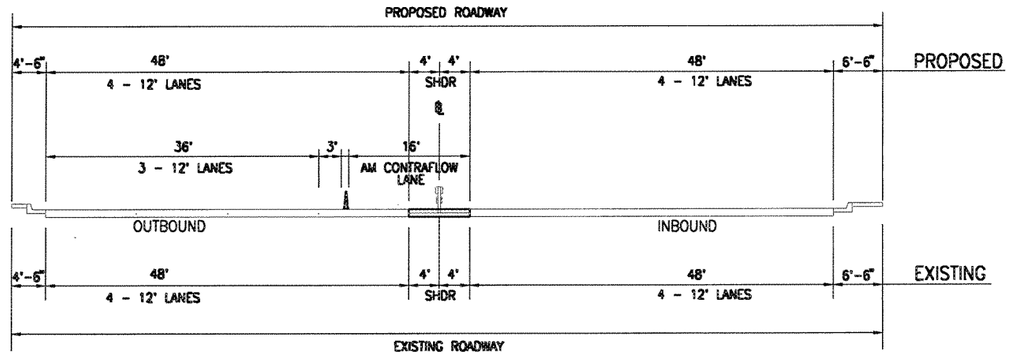
DATE: 5-24-02 | SHEET NO. 25 OF 142

AR00016478



NIMITZ HIGHWAY PLAN – 1
SCALE: 1" = 100'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A
R-20 R-20
NIMITZ CONNECTOR (AT-GRADE)
1" = 10'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

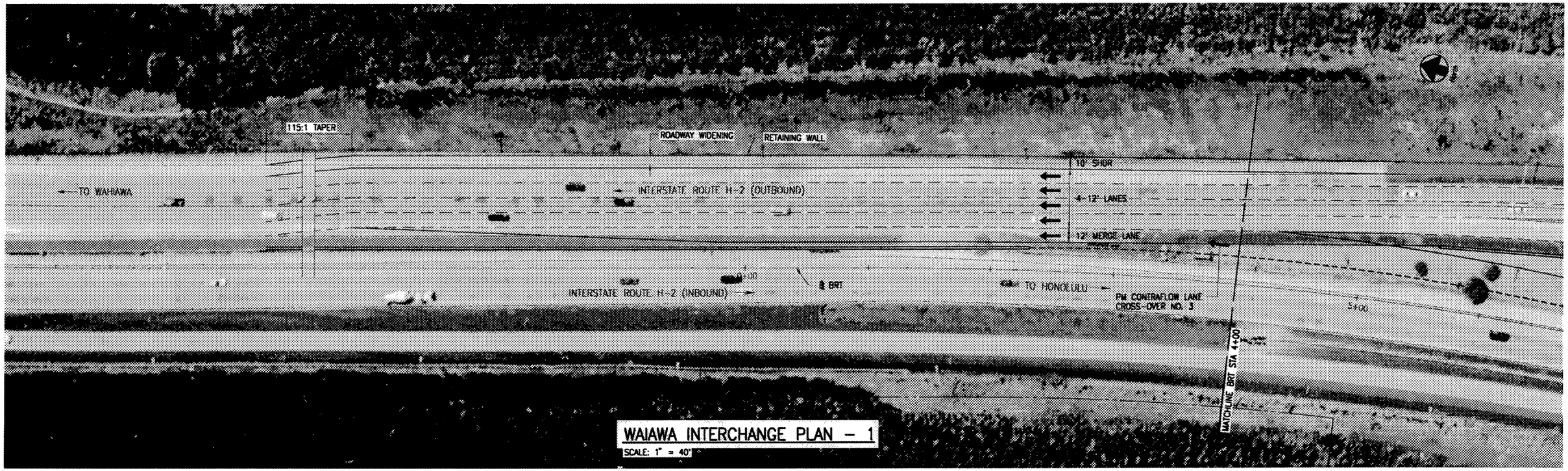
SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

NIMITZ HIGHWAY
PLAN AND SECTION – 1

DRAWING NO.
R-20

DATE: 5-24-02 SHEET NO. 26 OF 142

AR00016479



WAIAWA INTERCHANGE PLAN – 1

SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

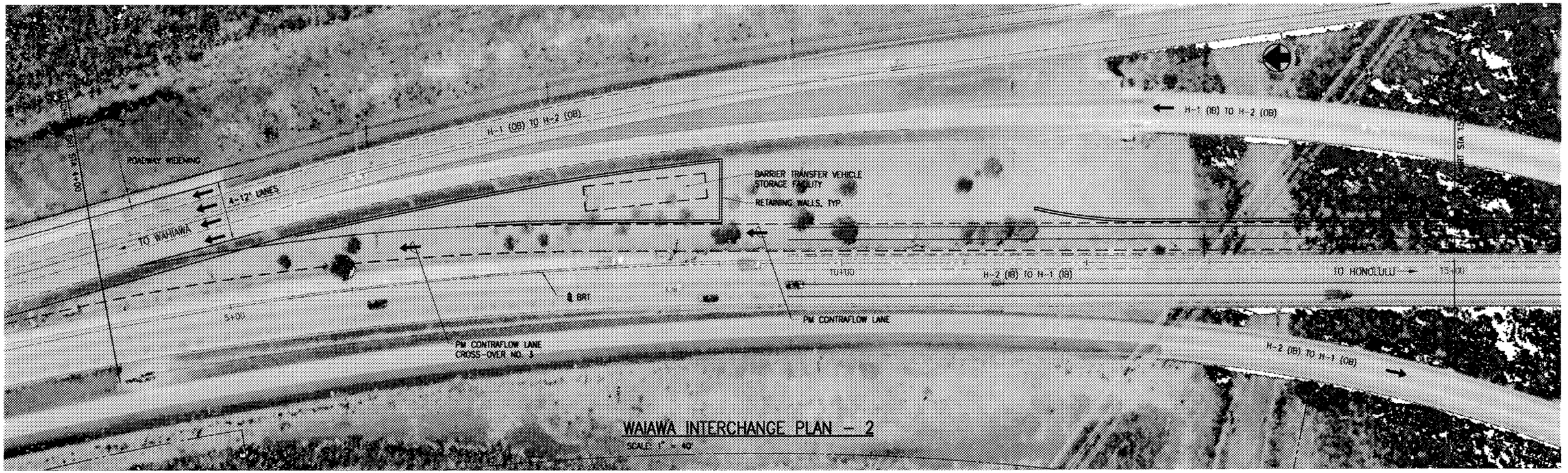
PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

WAIAWA INTERCHANGE PLAN – 1

DRAWING NO.
R-21
DATE: 5-24-02 SHEET NO. **27** OF **142**

AR00016480



WAIAWA INTERCHANGE PLAN – 2

SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

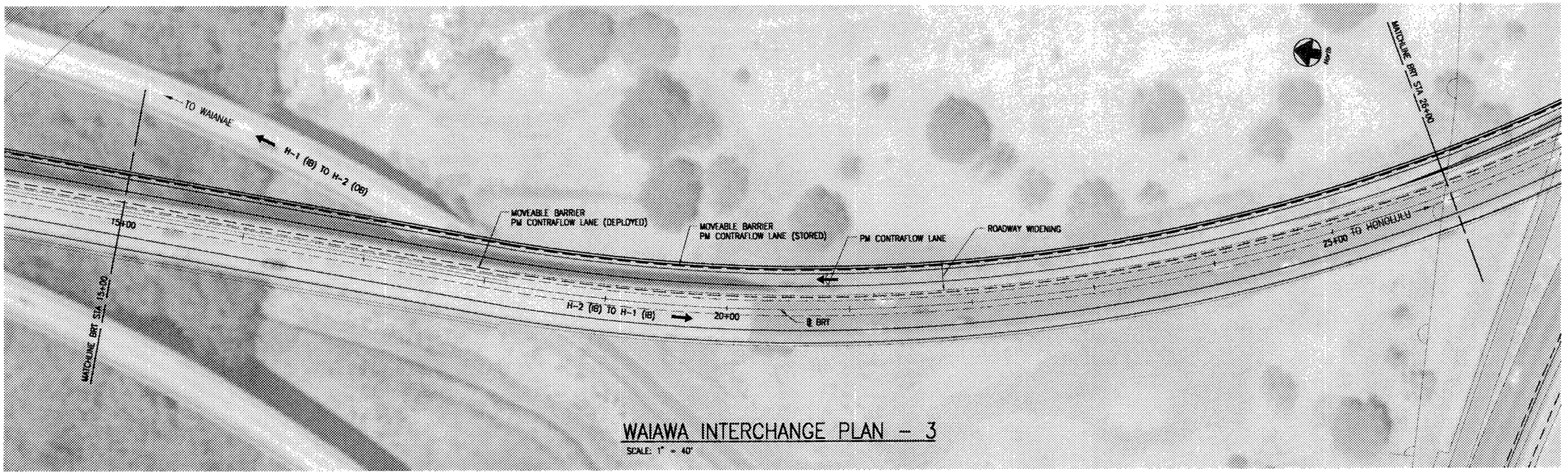
PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

WAIAWA INTERCHANGE PLAN – 2

DRAWING NO.
R-22
DATE: 5-24-02 SHEET NO. **28** OF **142**

AR00016481



WAIAWA INTERCHANGE PLAN – 3

SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

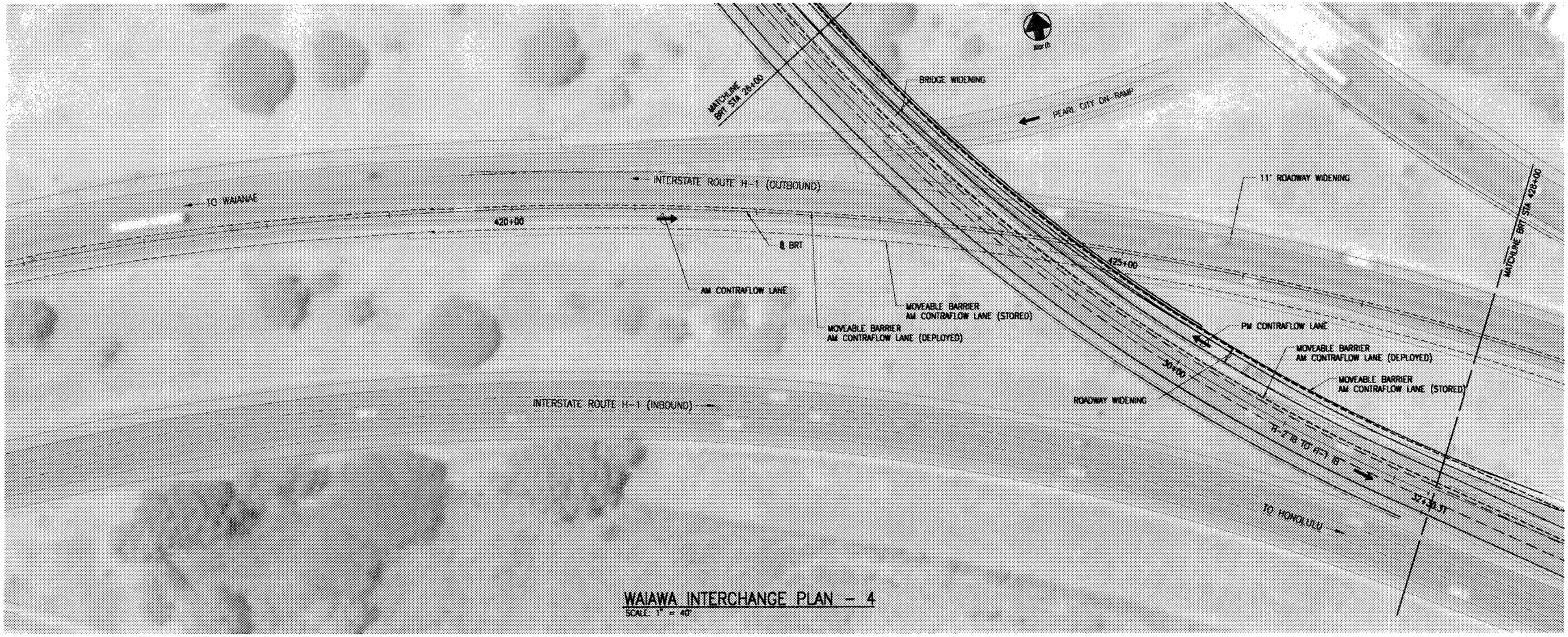
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

WAIAWA INTERCHANGE PLAN – 3

DRAWING NO.
R-23
DATE: 5-24-02 SHEET NO. **29** OF **142**

AR00016482



WAIAWA INTERCHANGE PLAN – 4
SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

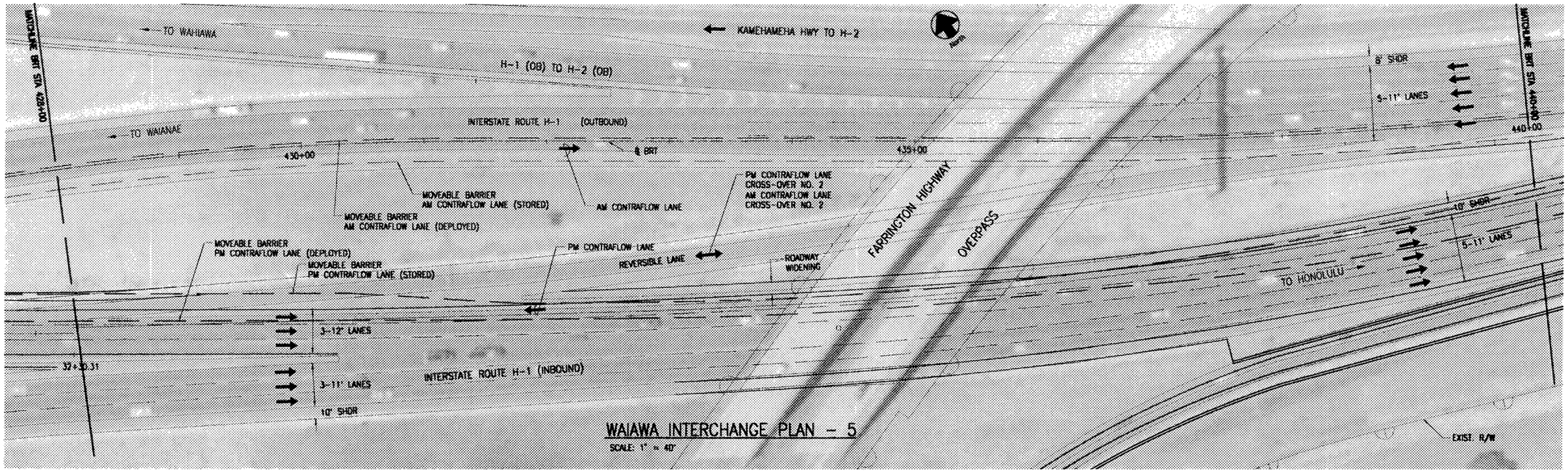
PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

WAIAWA INTERCHANGE PLAN – 4

DRAWING NO.
R-24
DATE: 5-24-02 | SHEET NO. **30** OF **142**

AR00016483



WAIAWA INTERCHANGE PLAN – 5

SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

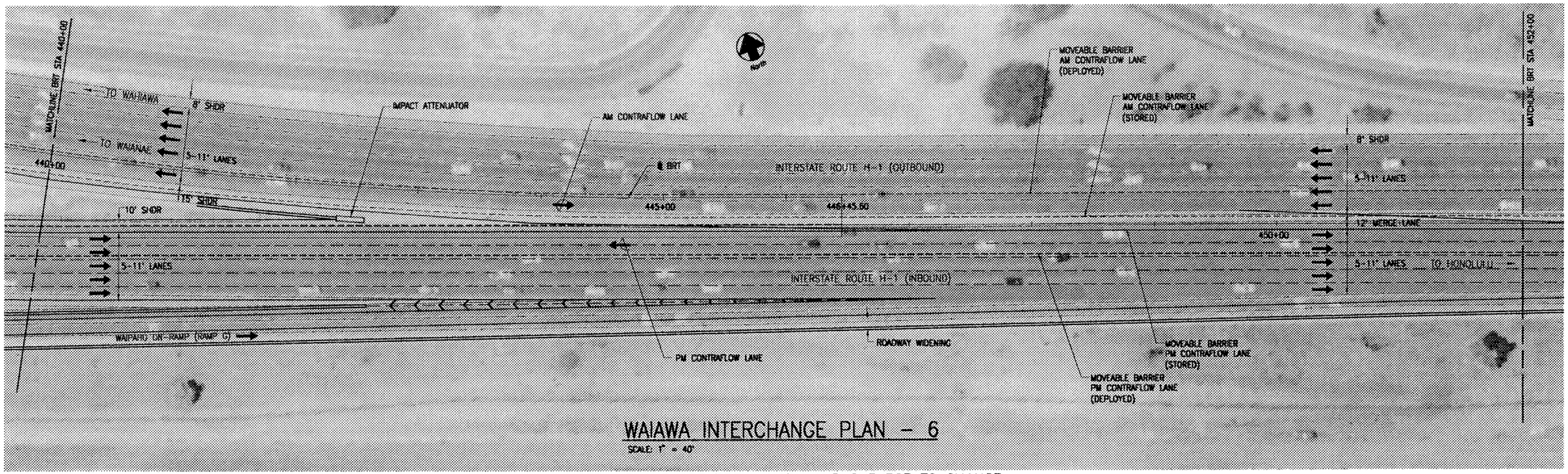
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

WAIAWA INTERCHANGE PLAN – 5

DRAWING NO.
R-25
DATE: 5-24-02 SHEET NO. **31** OF **142**

AR00016484



WAIAWA INTERCHANGE PLAN – 6

SCALE: 1" = 40'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

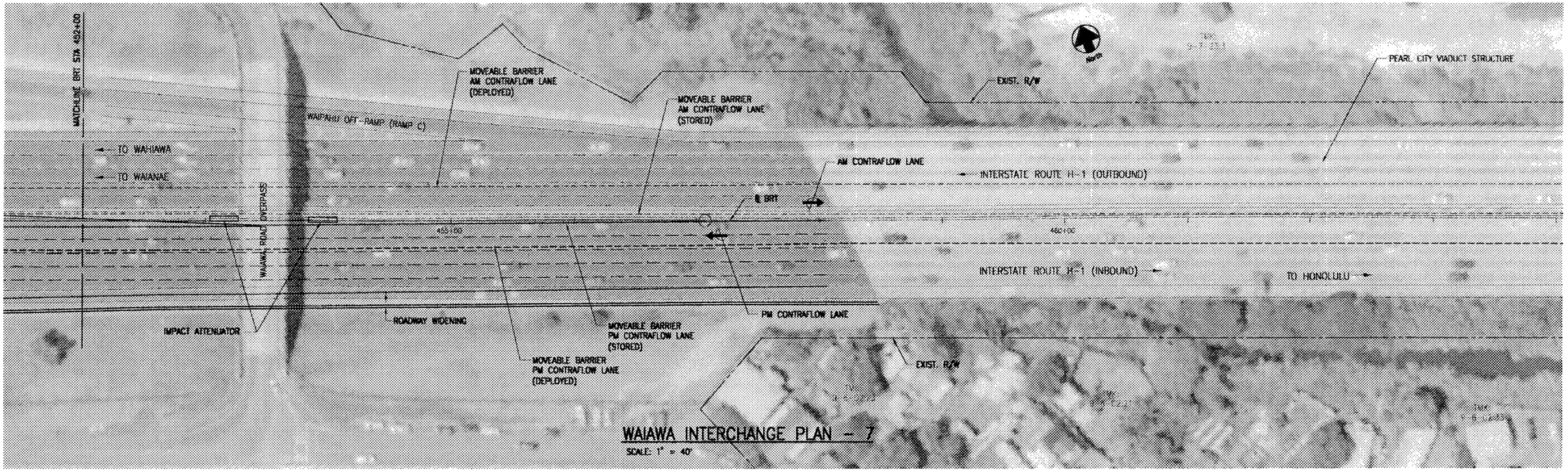
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

WAIAWA INTERCHANGE PLAN – 6

DRAWING NO.
R-26
DATE: 5-24-02 | SHEET NO. **32** OF **142**

AR00016485



WAIAWA INTERCHANGE PLAN - 7

SCALE: 1" = 40'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

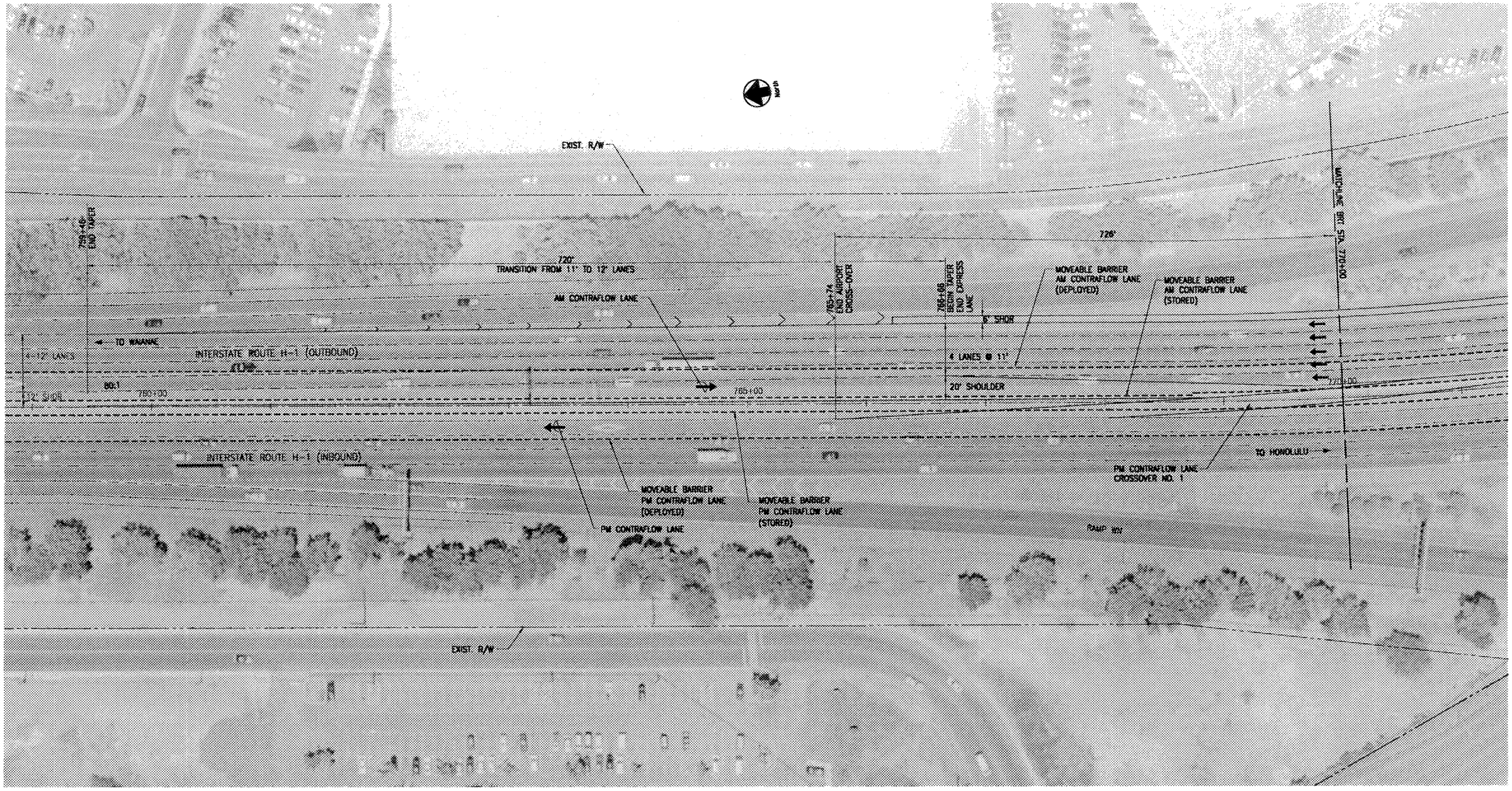
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

WAIAWA INTERCHANGE PLAN - 7

DRAWING NO.
R-27
DATE: 5-24-02 SHEET NO. **33** OF **142**

AR00016486



AM/PM AIRPORT CROSS-OVERS PLAN-1

SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

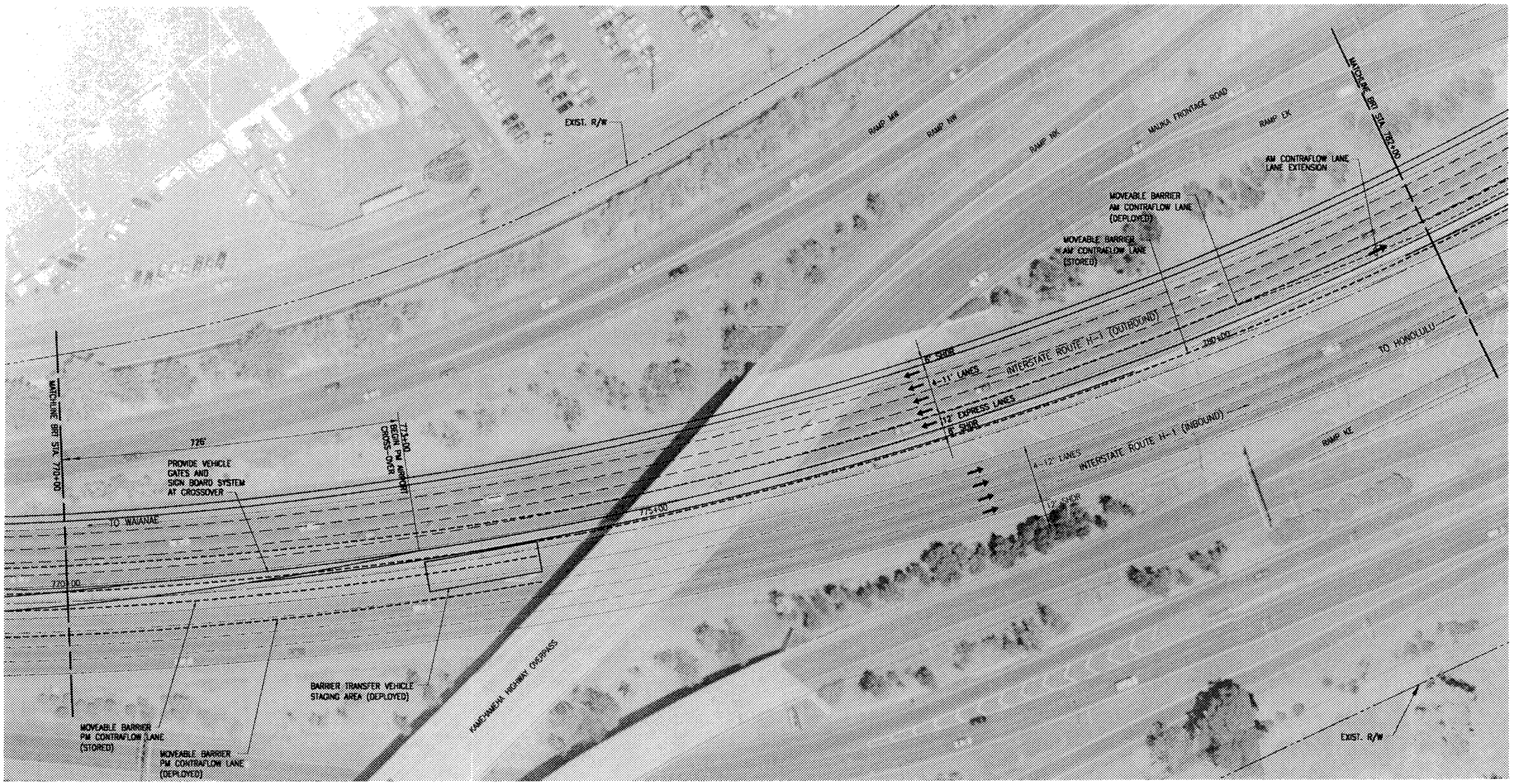
PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

AM/PM AIRPORT CROSS-OVERS PLAN – 1

DRAWING NO.
R-28
DATE: 5-24-02 | SHEET NO. **34** OF **142**

AR00016487



AM/PM AIRPORT CROSS-OVERS PLAN-2

SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

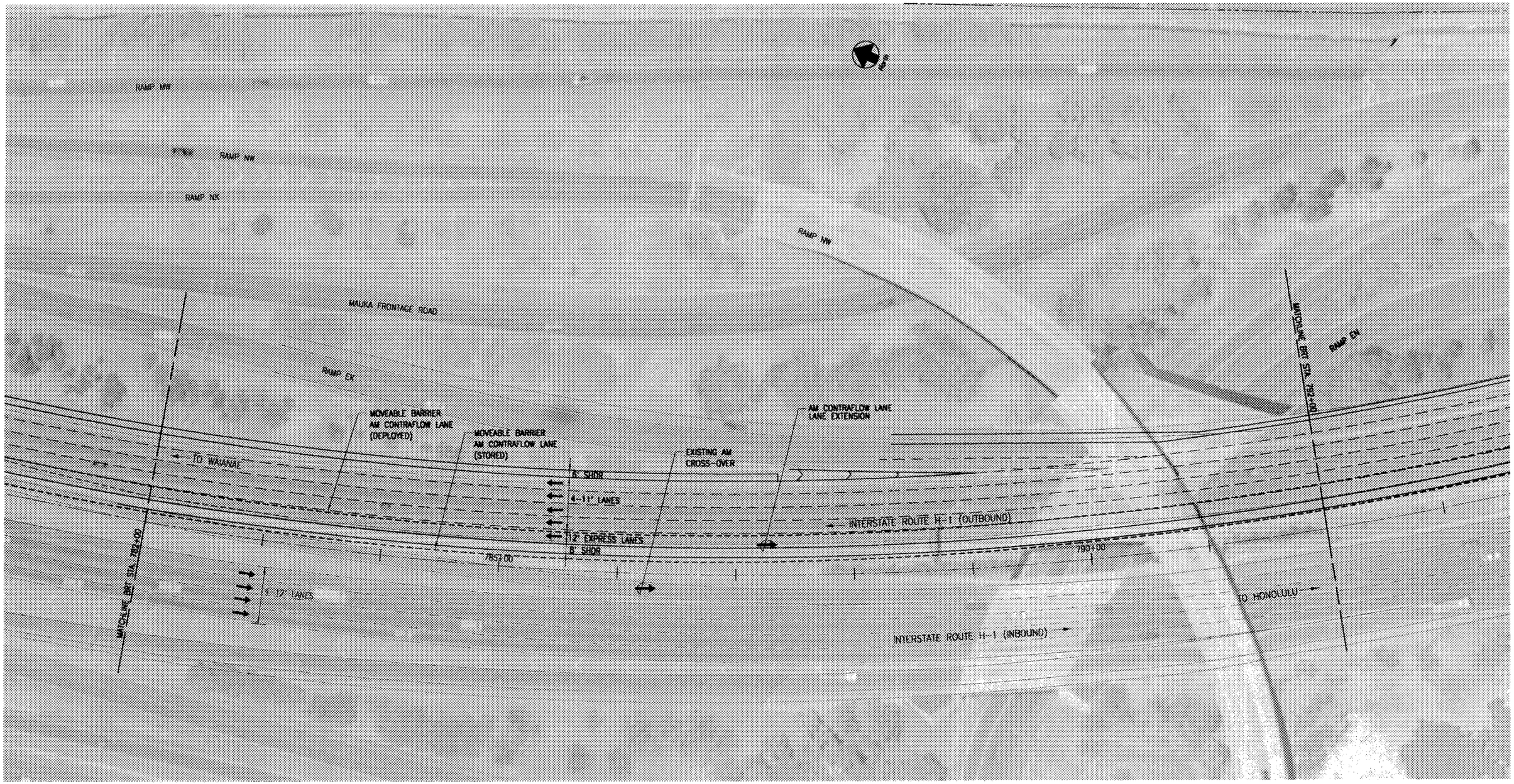
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

AM/PM AIRPORT CROSS-OVERS
PLAN-2

DRAWING NO.
R-29
DATE: 5-24-02 SHEET NO. 35 OF 142

AR00016488



AM/PM AIRPORT CROSS-OVERS PLAN-3

SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

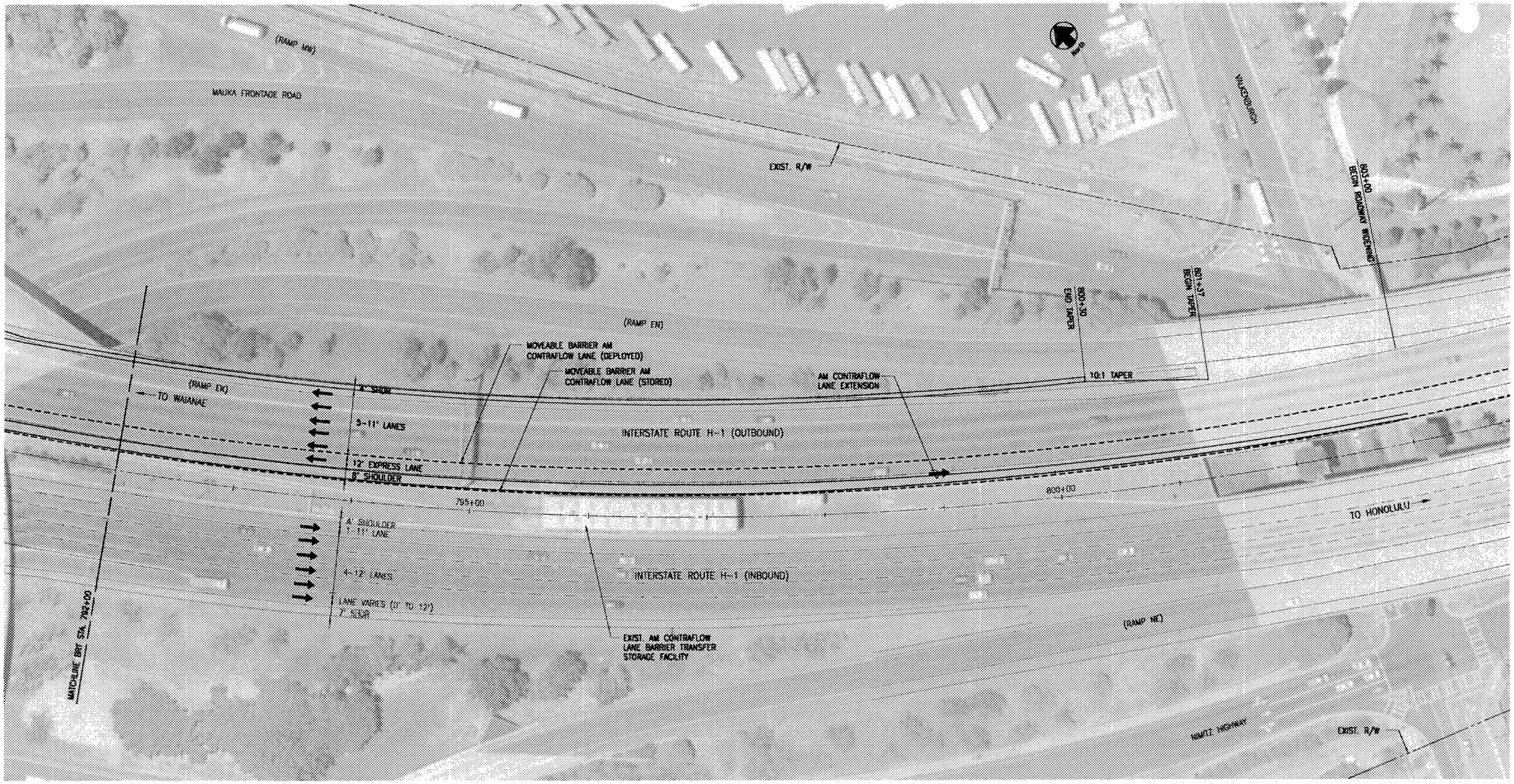
SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

AM/PM AIRPORT CROSS-OVERS
PLAN-3

DRAWING NO.
R-30

DATE: 5-24-02 | SHEET NO. 36 OF 142

AR00016489



AM/PM AIRPORT CROSS-OVERS PLAN-4

SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

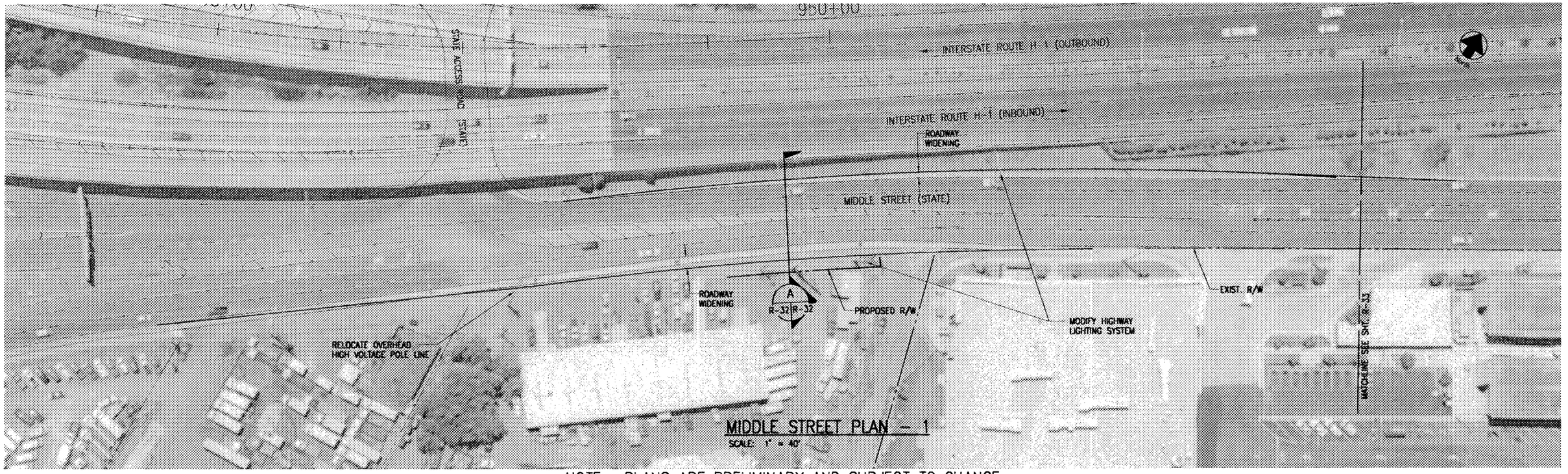
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

AM/PM AIRPORT CROSS-OVERS PLAN-4

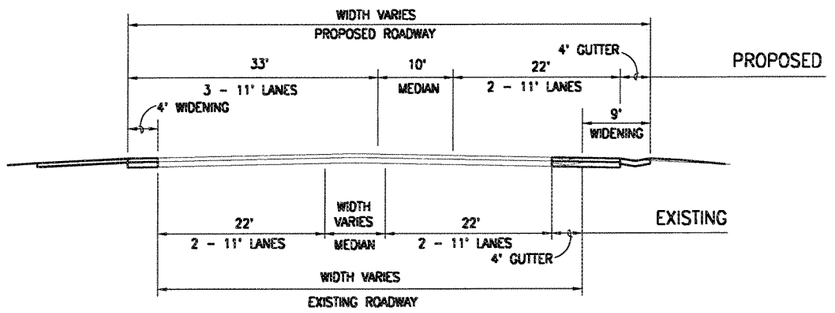
DRAWING NO.
R-31
DATE: 5-24-02 SHEET NO. **37** OF **142**

AR00016490



MIDDLE STREET PLAN – 1
SCALE: 1" = 40'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A MIDDLE STREET
R-32 R-32 1" = 10'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

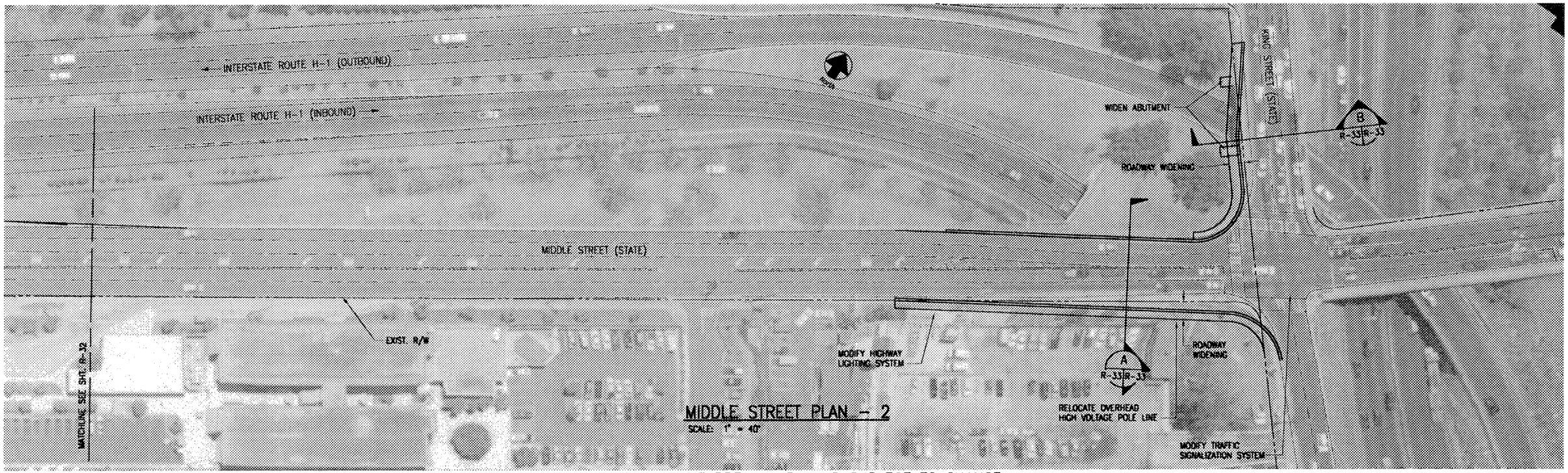
SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

MIDDLE STREET PLAN-1

DRAWING NO. R-32

DATE: 5-24-02 SHEET NO. 38 OF 142

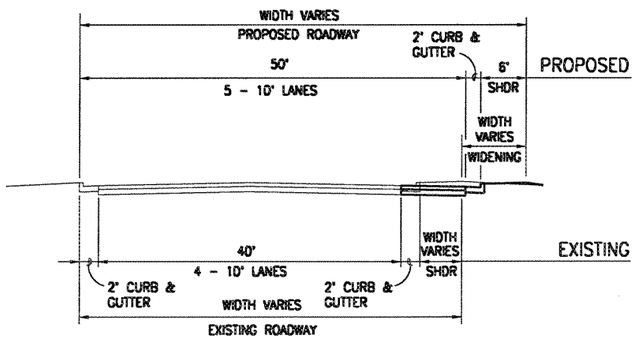
AR00016491



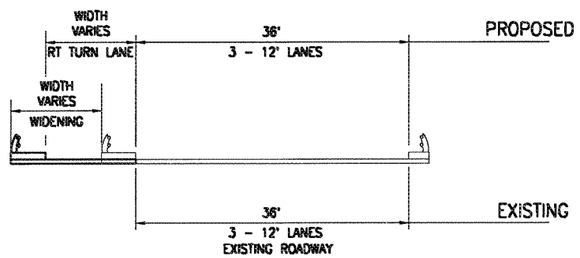
MIDDLE STREET PLAN – 2

SCALE: 1" = 40'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



A R-33 R-33 MIDDLE STREET 1" = 10'



B R-33 R-33 KING STREET OVERPASS 1" = 10'

DISCLAIMER	PRIMARY CORRIDOR TRANSPORTATION PROJECT	SCALE: 40' 20' 0 40' 80' (FULL SIZE SCALE: 1" = 40')	MIDDLE STREET PLAN-2	DRAWING NO. R-33
EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.	CITY & COUNTY OF HONOLULU DEPARTMENT OF TRANSPORTATION SERVICES			DATE: 5-24-02 SHEET NO. 39 OF 142

AR00016492

NIMITZ HIGHWAY PLAN – 1

SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

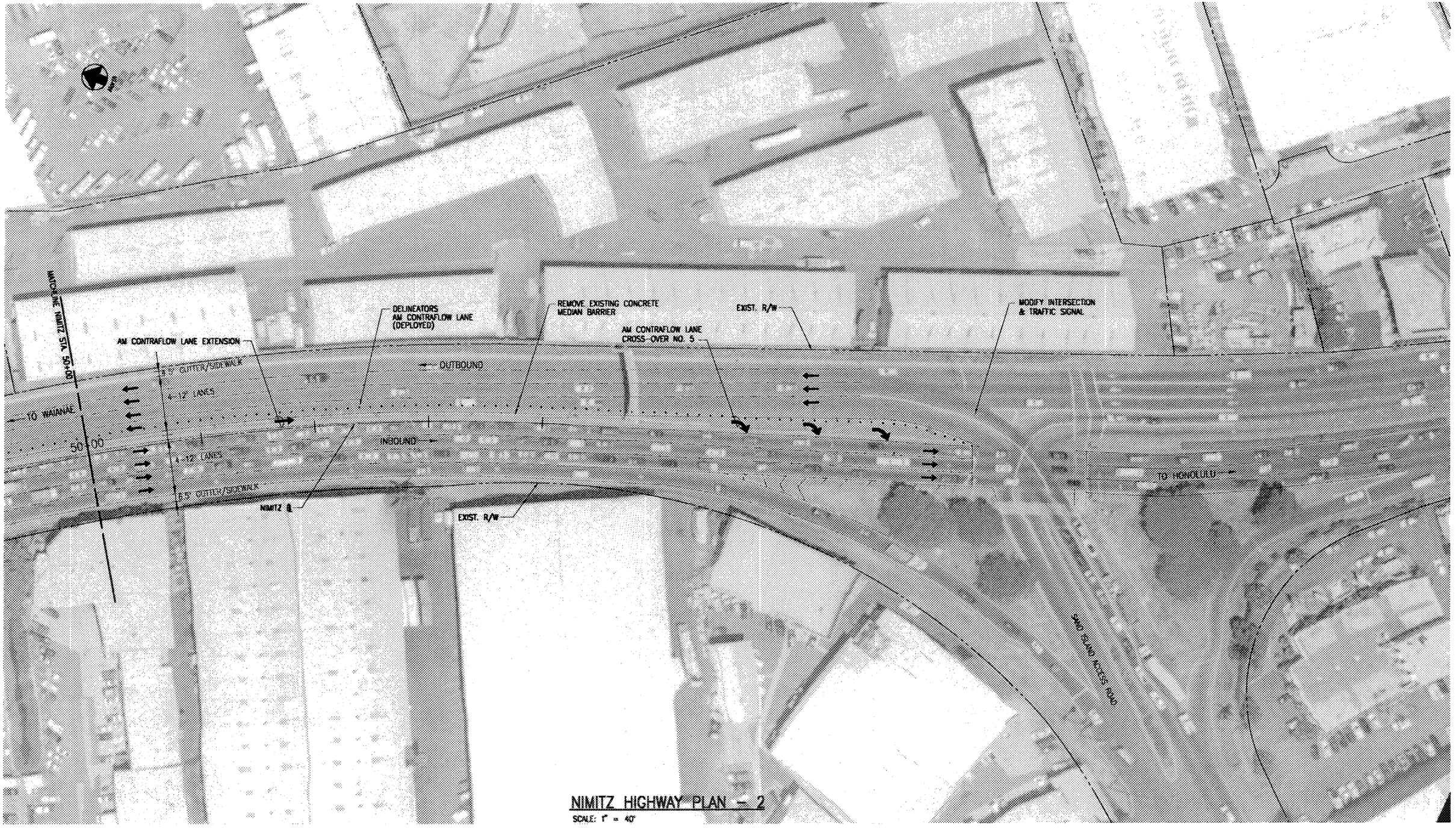
SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

NIMITZ HIGHWAY
PLAN–1

DRAWING NO.
R–34

DATE: 5–24–02 SHEET NO. 40 OF 142

AR00016493



NIMITZ HIGHWAY PLAN – 2

SCALE: 1" = 40'

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

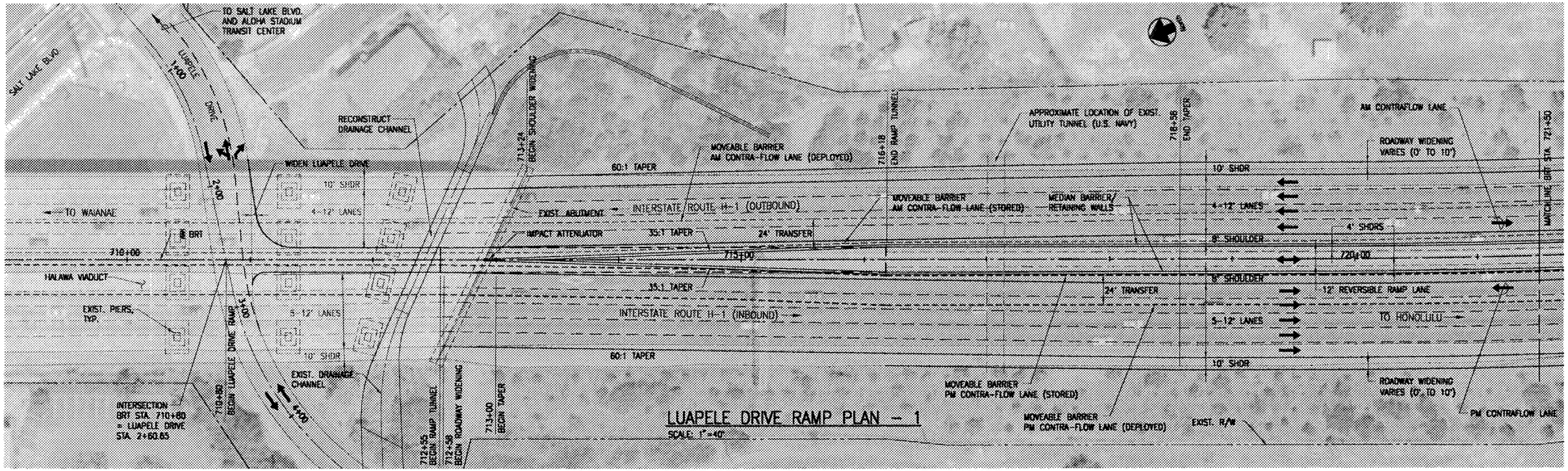
NIMITZ HIGHWAY PLAN-2

DRAWING NO.

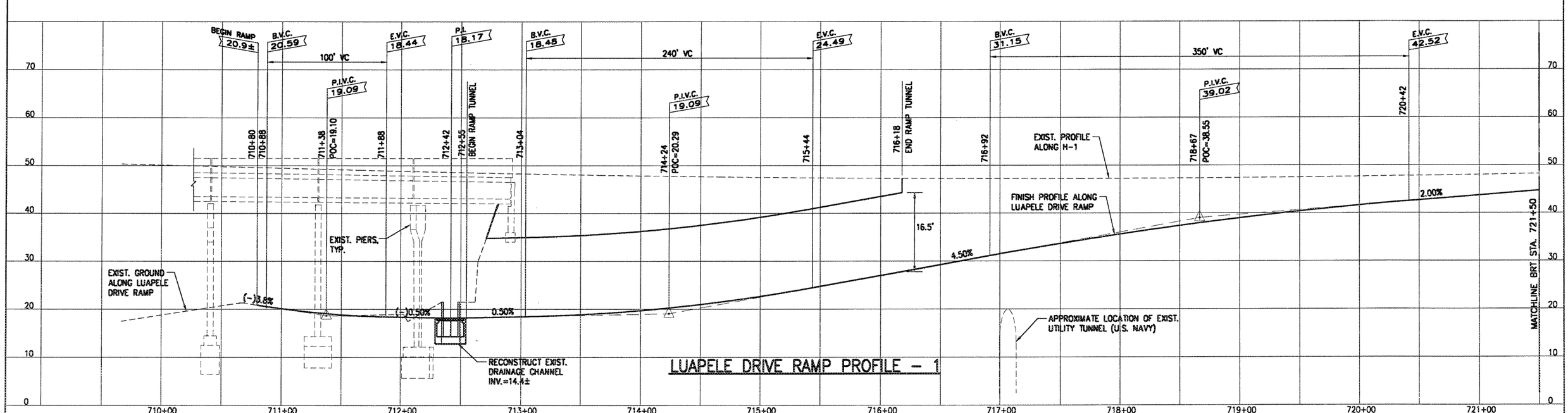
R-35

DATE: 5-24-02 | SHEET NO. 41 OF 142

AR00016494



NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

HORIZ. SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

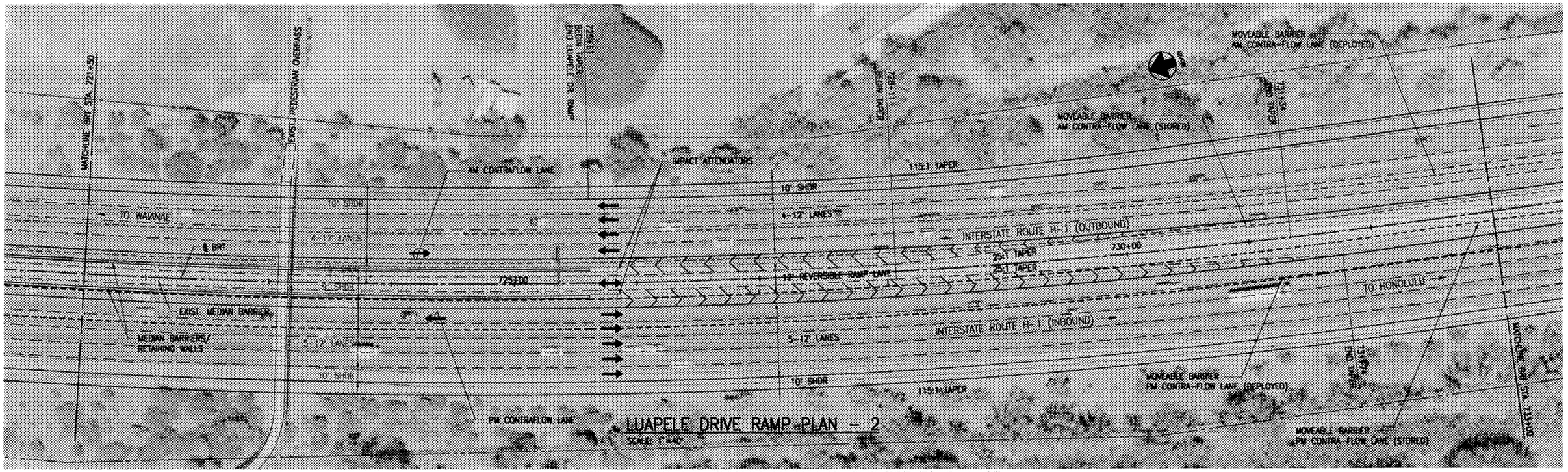
VERT. SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

LUAPELE DRIVE RAMP PLAN AND PROFILE - 1

DRAWING NO.
R-36

DATE: 5-24-02 | SHEET NO. 42 OF 142

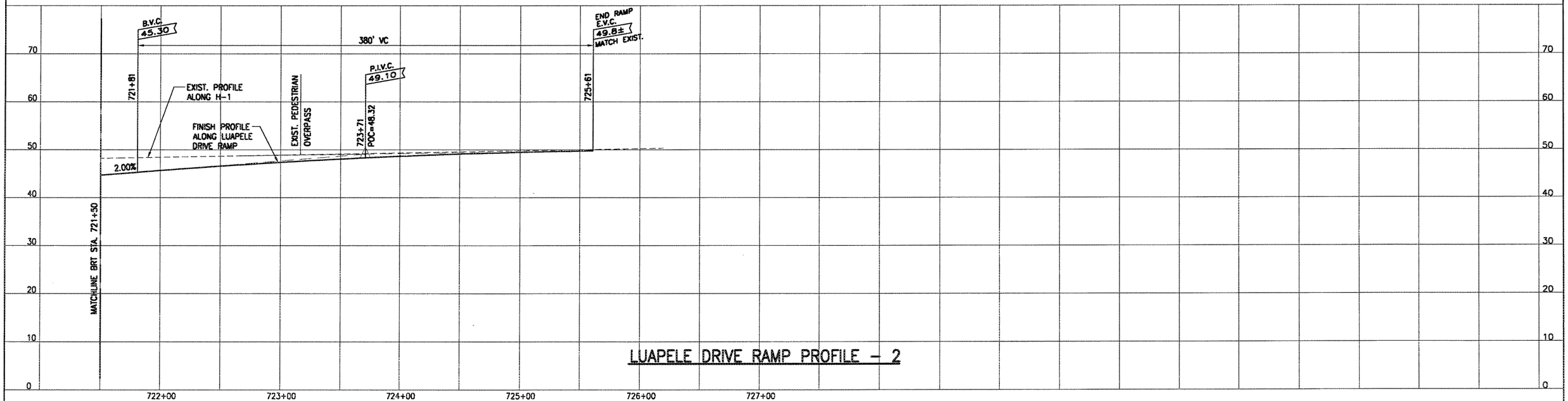
AR00016495



LUAPELE DRIVE RAMP PLAN – 2

SCALE: 1"=40'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE



LUAPELE DRIVE RAMP PROFILE – 2

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

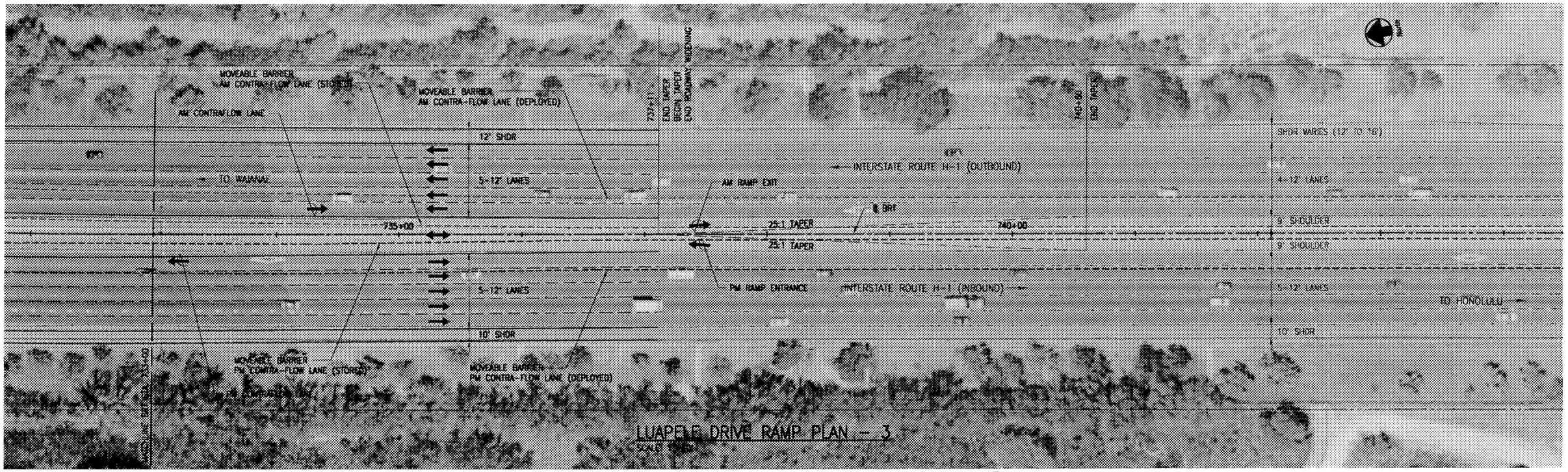
HORIZ. SCALE: 40' 20' 0 40' 80' — FULL SIZE SCALE: 1" = 40'
VERT. SCALE: 10' 5' 0 10' 20' — FULL SIZE SCALE: 1" = 10'

LUAPELE DRIVE RAMP PLAN AND PROFILE – 2

DRAWING NO. R-37

DATE: 5-24-02 | SHEET NO. 43 OF 142

AR00016496



LUAPELE DRIVE RAMP PLAN – 3

SCALE: 1" = 40'

NOTE: PLANS ARE PRELIMINARY AND SUBJECT TO CHANGE

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

HORIZ. SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

VERT. SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

LUAPELE DRIVE RAMP PLAN AND PROFILE – 3

DRAWING NO.
R-38

DATE: 5-24-02 | SHEET NO. 44 OF 142

AR00016497

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

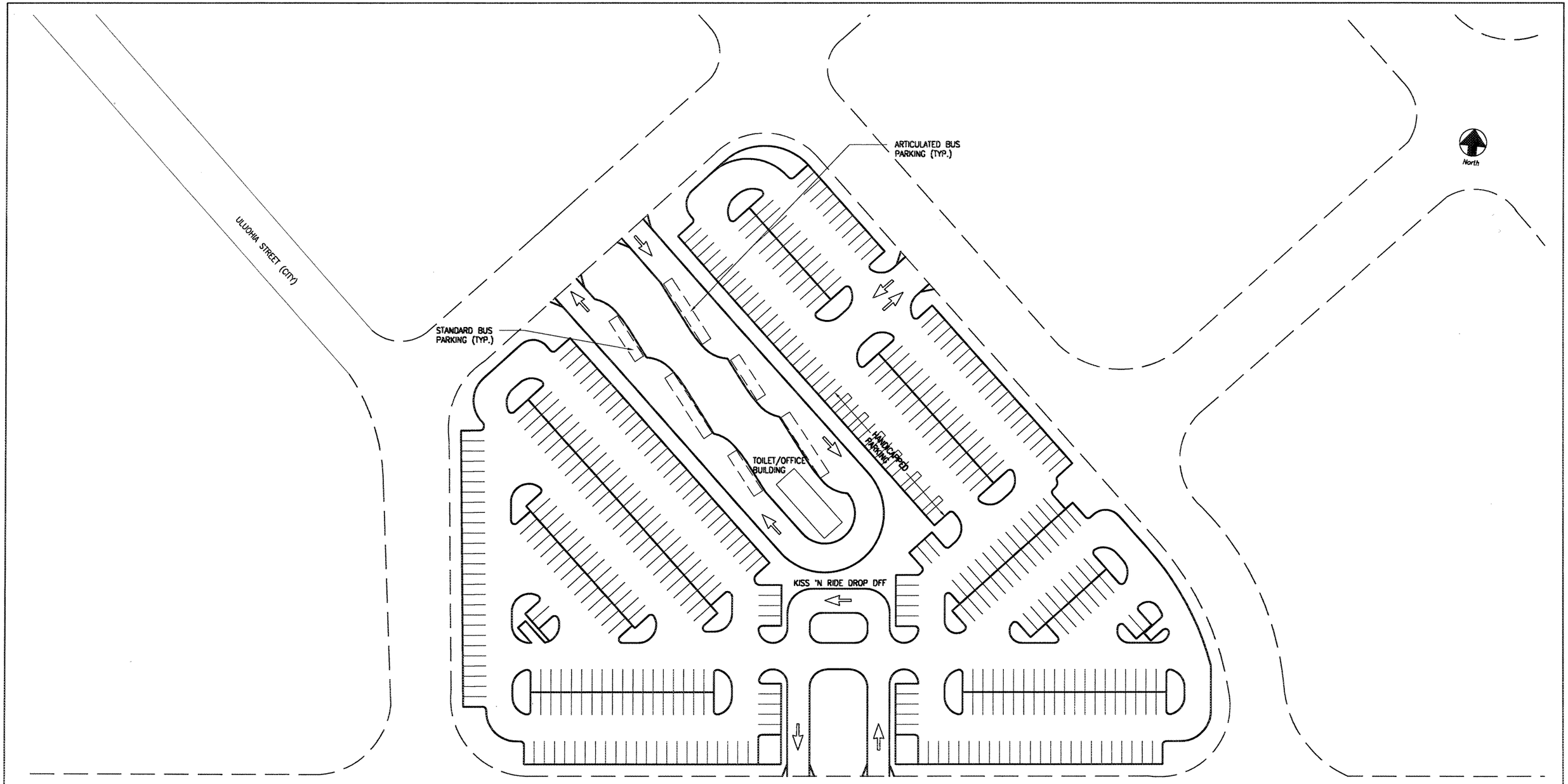
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

KAPOLEI TRANSIT CENTER LOCATION PLAN

DRAWING NO.
R-39
DATE: 5-24-02 SHEET NO. 45 OF 142

AR00016498



DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

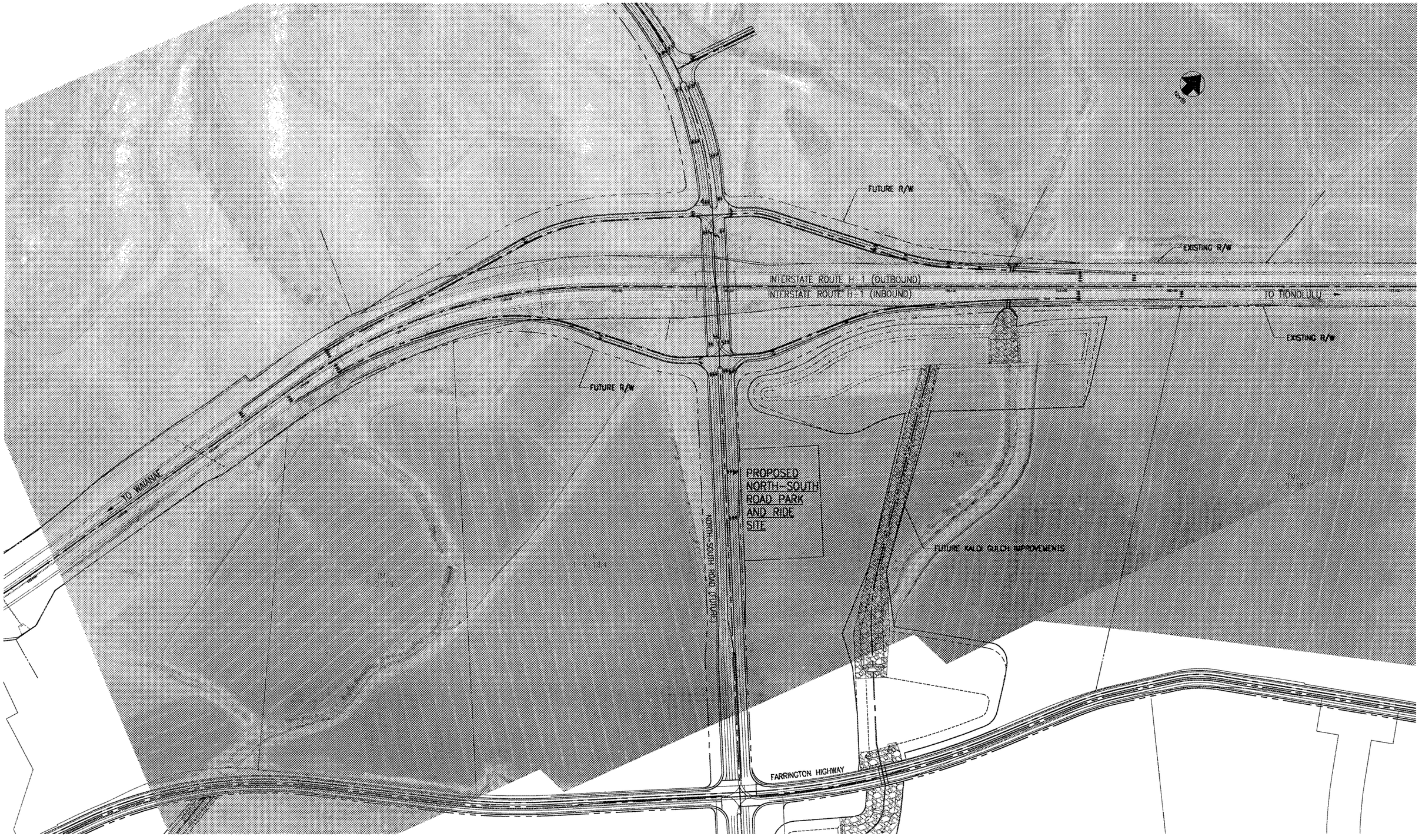
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

KAPOLEI TRANSIT CENTER LAYOUT PLAN

DRAWING NO.
R-40
DATE: 5-24-02 SHEET NO. 46 OF 142

AR00016499



DISCLAIMER

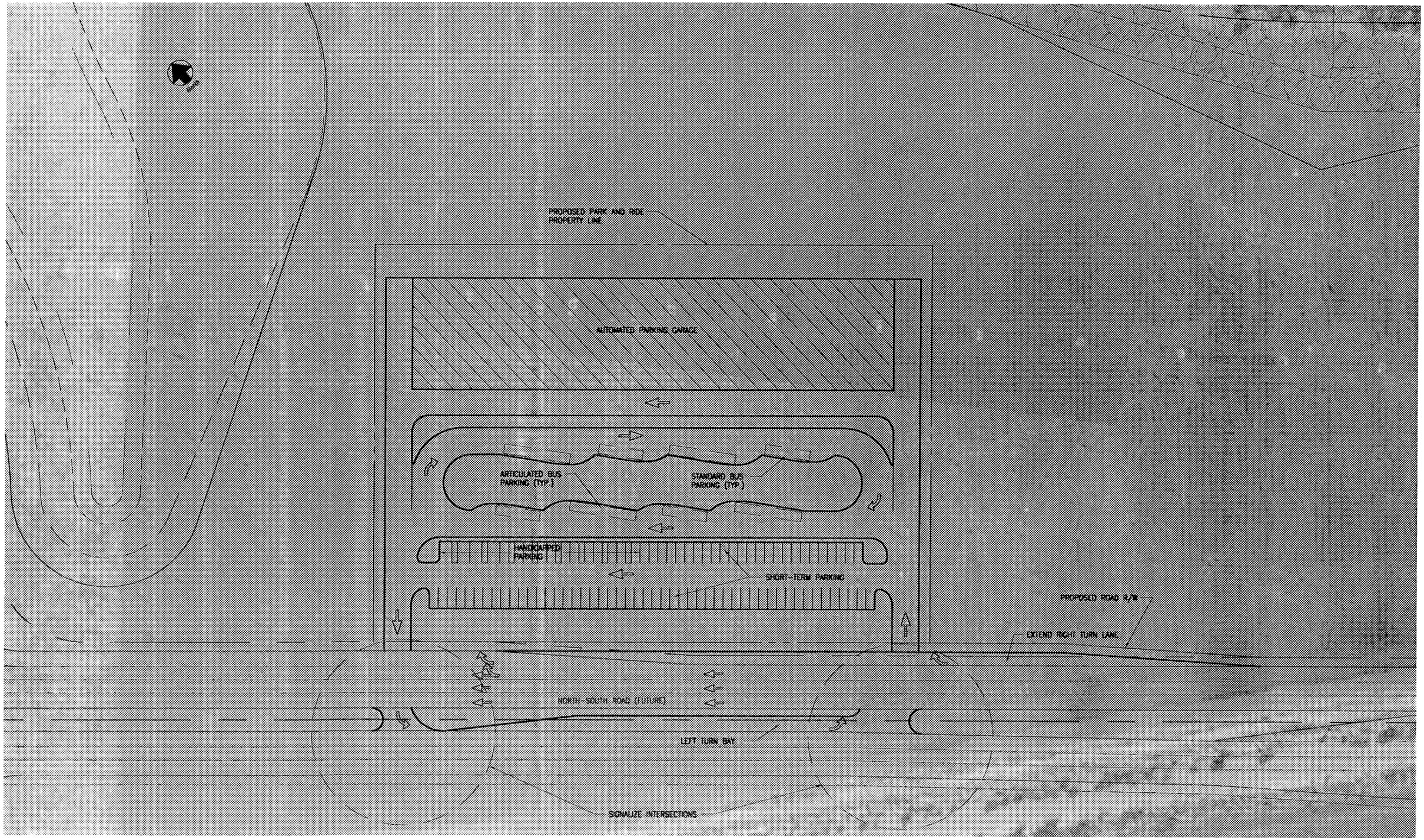
EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 200' 100' 0 200' 400'
FULL SIZE SCALE: 1" = 200'

NORTH-SOUTH ROAD PARK AND RIDE LOCATION PLAN

DRAWING NO.
R-41
DATE: 5-24-02 | SHEET NO. 47 OF 142



DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

NORTH-SOUTH ROAD PARK AND RIDE LAYOUT PLAN

DRAWING NO.
R-42
DATE: 5-24-02 SHEET NO. 48 OF 142

AR00016501

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

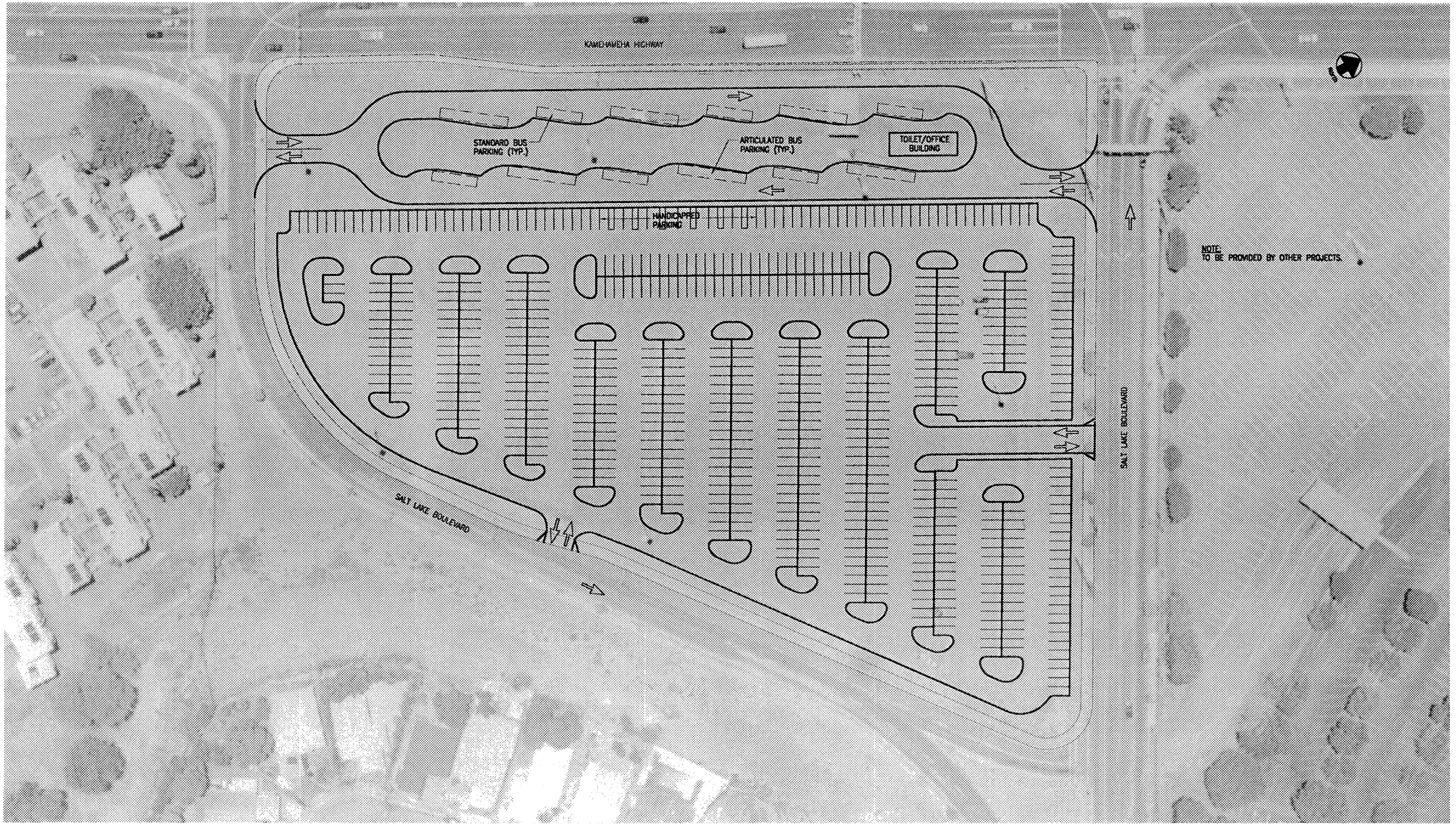
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 100' 50' 0 100' 200'
FULL SIZE SCALE: 1" = 100'

ALOHA STADIUM PARK AND RIDE LOCATION PLAN

DRAWING NO.
R-43
DATE: 10-22-02 SHEET NO. 49 OF 142

AR00016502



DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

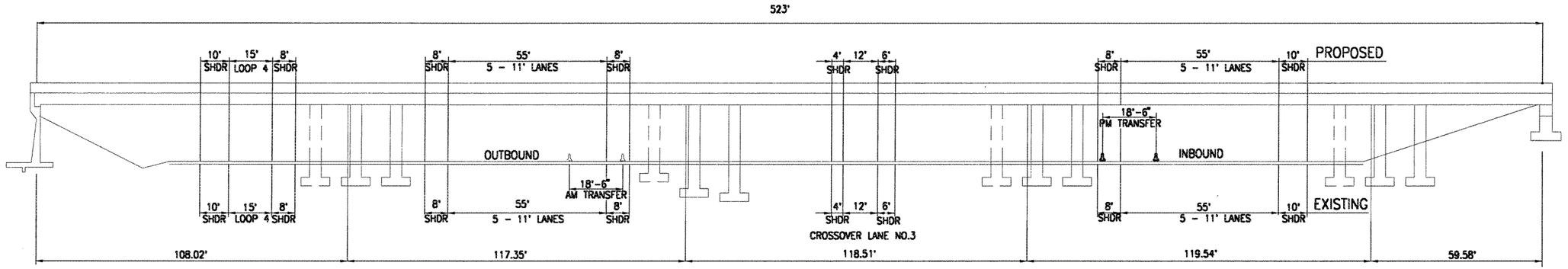
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 40' 20' 0 40' 80'
FULL SIZE SCALE: 1" = 40'

ALOHA STADIUM PARK AND RIDE LAYOUT PLAN

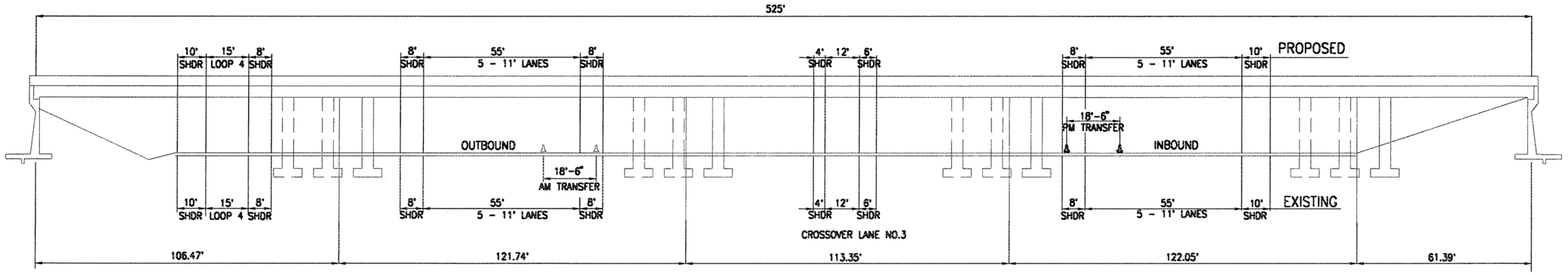
DRAWING NO.
R-44
DATE: 10-22-02 SHEET NO. 50 OF 142

AR00016503



B R-2 R-45 FARRINGTON HWY OVERPASS (OUTBOUND)

1" = 20' (STA. 435+00 TO 435+80)



C R-2 R-45 FARRINGTON HWY OVERPASS (INBOUND)

1" = 20' (STA. 435+80 TO 436+60)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

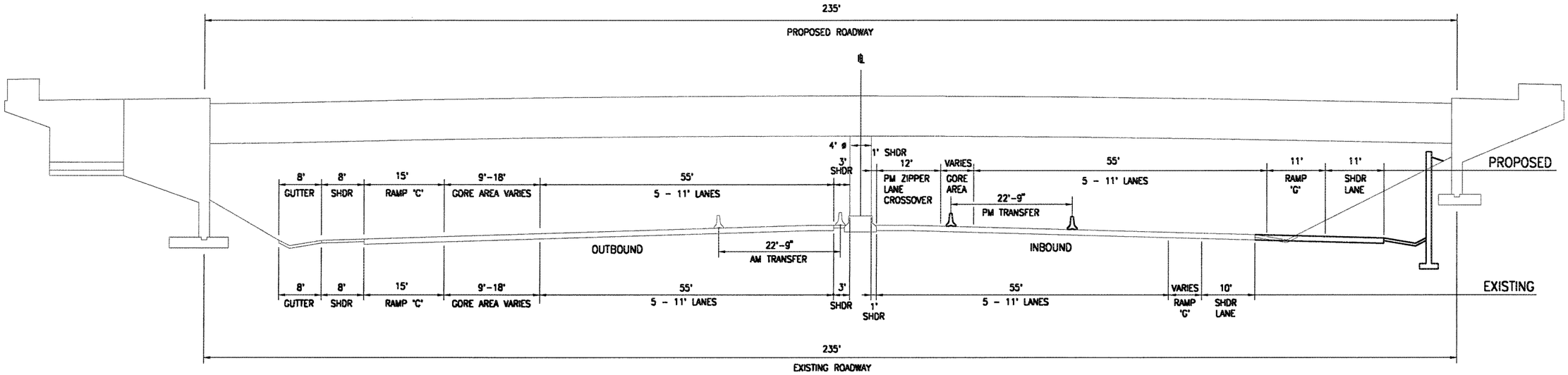
SCALE: 20' 10' 0 20' 40'
FULL SIZE SCALE: 1" = 20'

SECTIONS – 1

DRAWING NO.
R-45

DATE: 5-24-02 | SHEET NO. 51 OF 142

AR00016504



A WAIAWA ROAD OVERPASS (STRUCTURE NO. 1)

R-3 | R-46 1" = 10' (STA. 452+85 TO 454+10)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

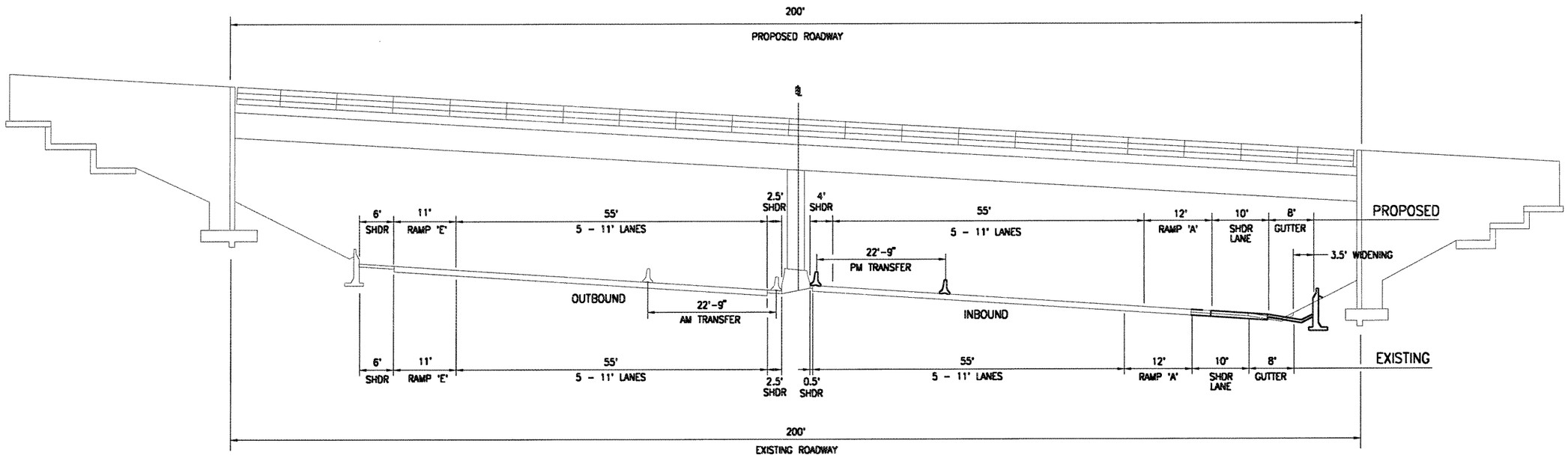
PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

SECTIONS – 2

DRAWING NO.
R-46
DATE: 5-24-02 | SHEET NO. 52 OF 142

AR00016505



A KAAHUMANU STREET OVERPASS

R-6 | R-47 1" = 10' (STA. 549+20 TO 549+95)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 15, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

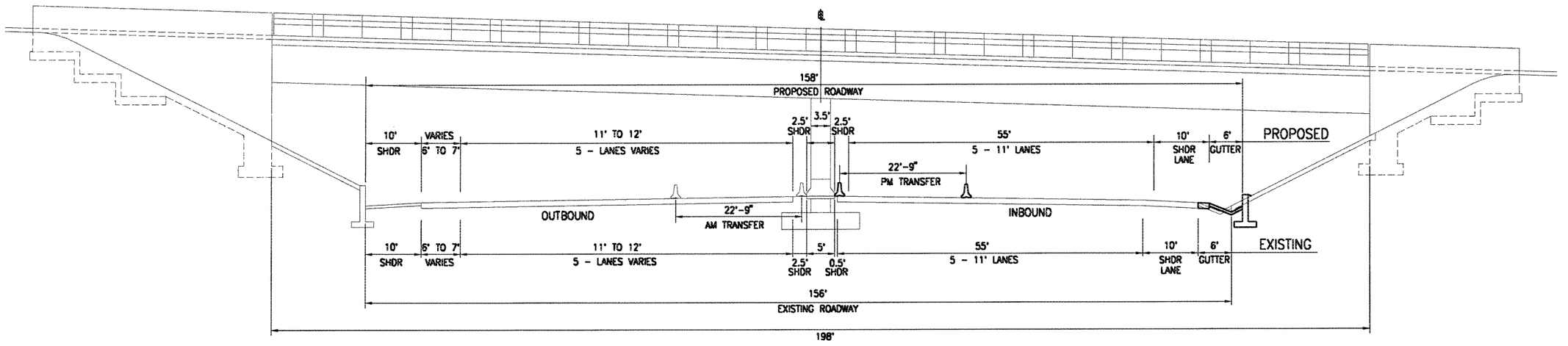
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

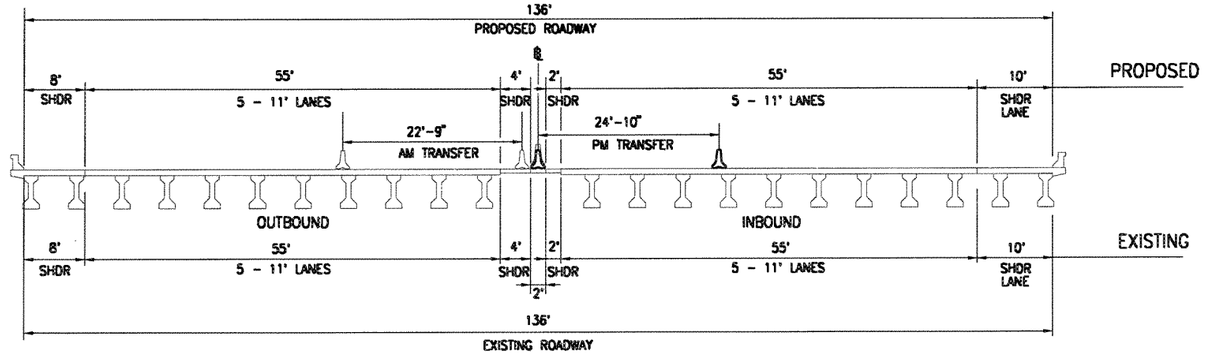
SECTIONS - 3

DRAWING NO.
R-47
DATE: 5-24-02 | SHEET NO. 53 OF 142

AR00016506



B R-7 R-48 KAONOHI STREET OVERPASS
1" = 10' (STA. 593+10 TO 593+85)



C R-6 R-48 H-1 (WAIMALU VIADUCT SECTION)
1" = 10' (STA. 565+35 TO 578+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

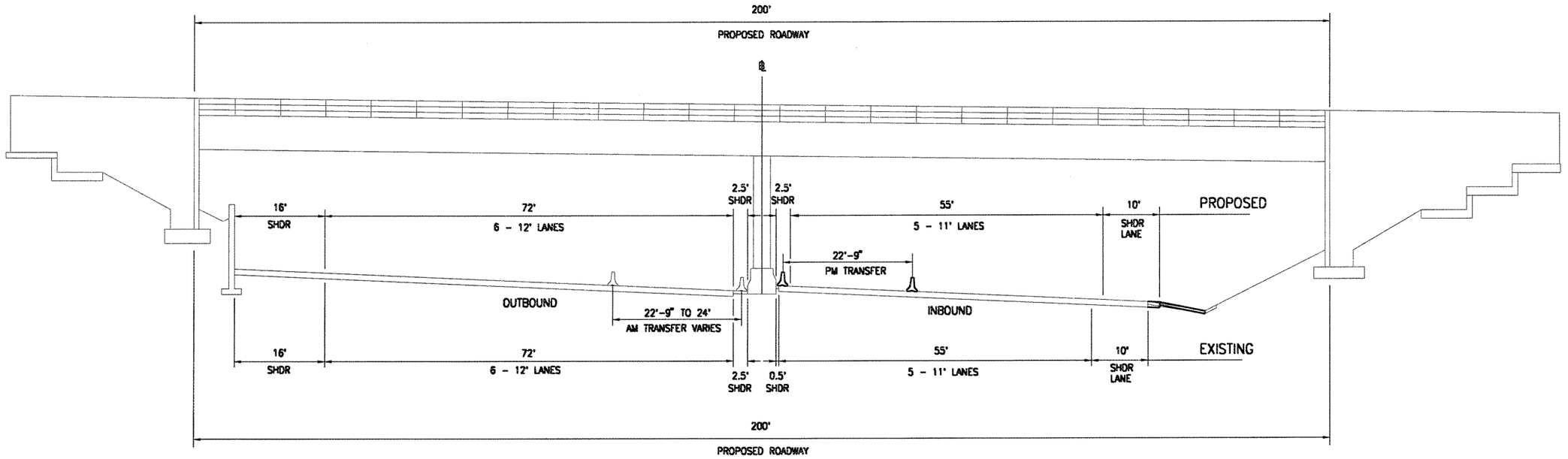
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

SECTIONS-4

DRAWING NO.
R-48
DATE: 5-24-02 SHEET NO. 54 OF 142

AR00016507



B R-8 R-49 KAAMILO STREET OVERPASS

1" = 10' (STA. 626+70 TO 627+30)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

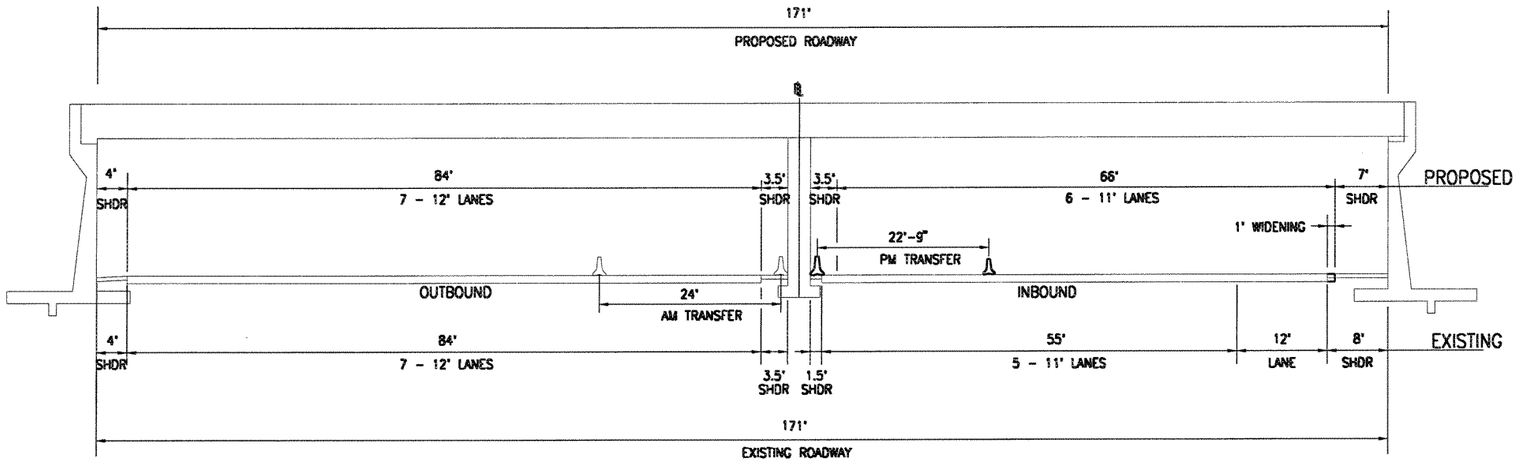
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

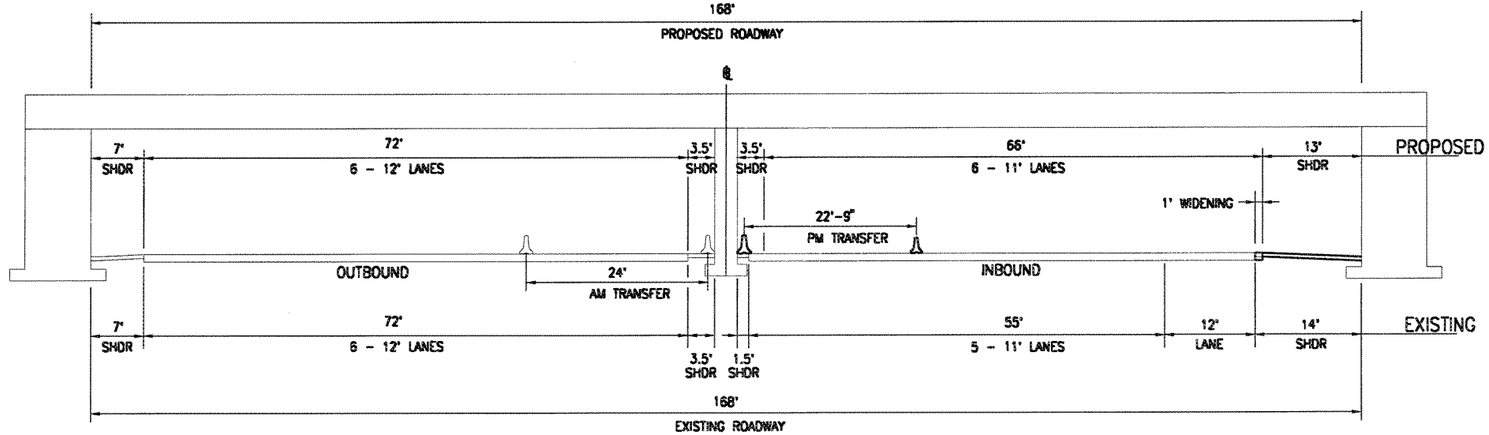
SECTIONS - 5

DRAWING NO.
R-49
DATE: 5-24-02 SHEET NO. 55 OF 142

AR00016508



C R-9 R-50 AIEA HEIGHTS DRIVE OVERPASS (AT-GRADE)
1" = 10' (STA. 645+30 TO 646+82)



B R-9 R-50 MAHIKO ROAD PEDESTRIAN OVERPASS (AT-GRADE)
1" = 10' (STA. 634+94)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

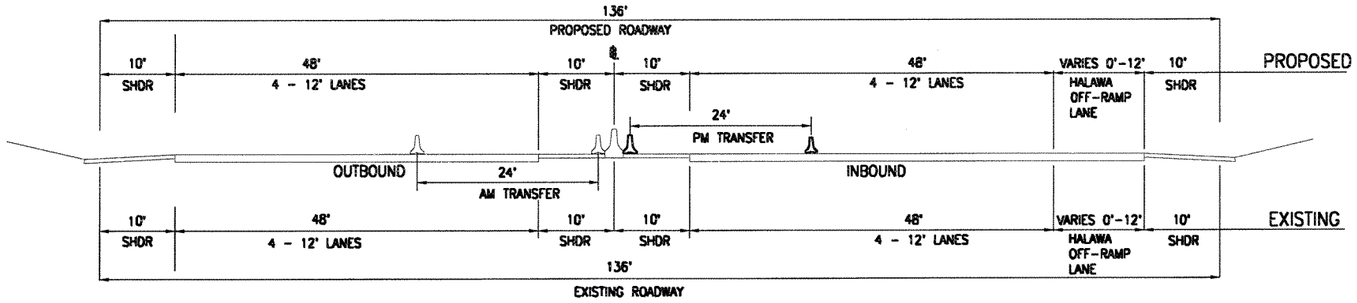
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

SECTIONS - 6

DRAWING NO.
R-50
DATE: 5-24-02 SHEET NO. **56** OF **142**

AR00016509



B
R-10 | R-51

H-1 (AT-GRADE)

1" = 10' (STA. 670+00 TO 679+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

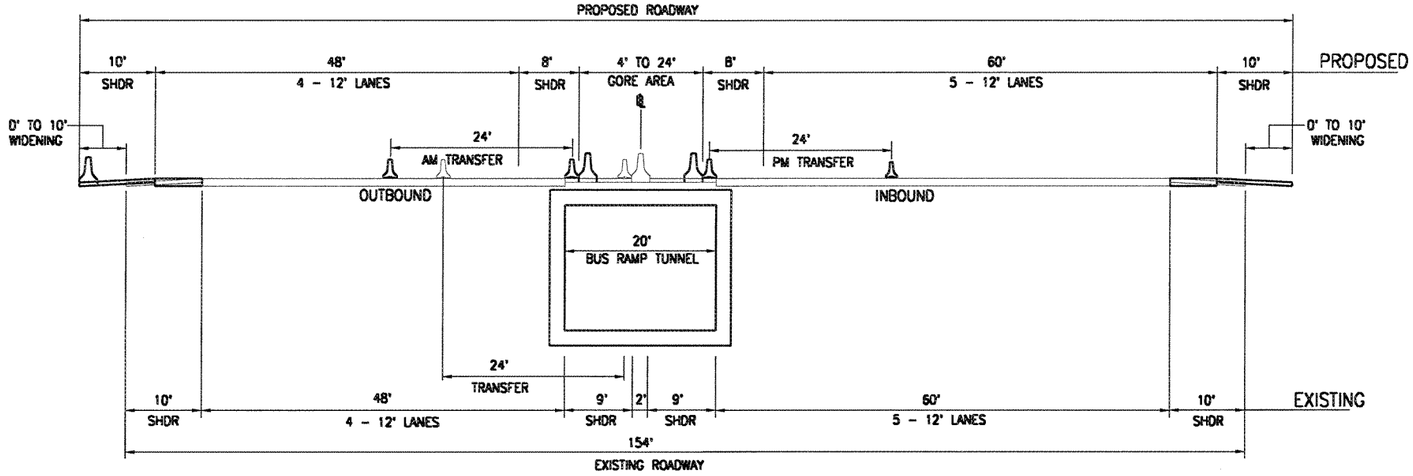
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

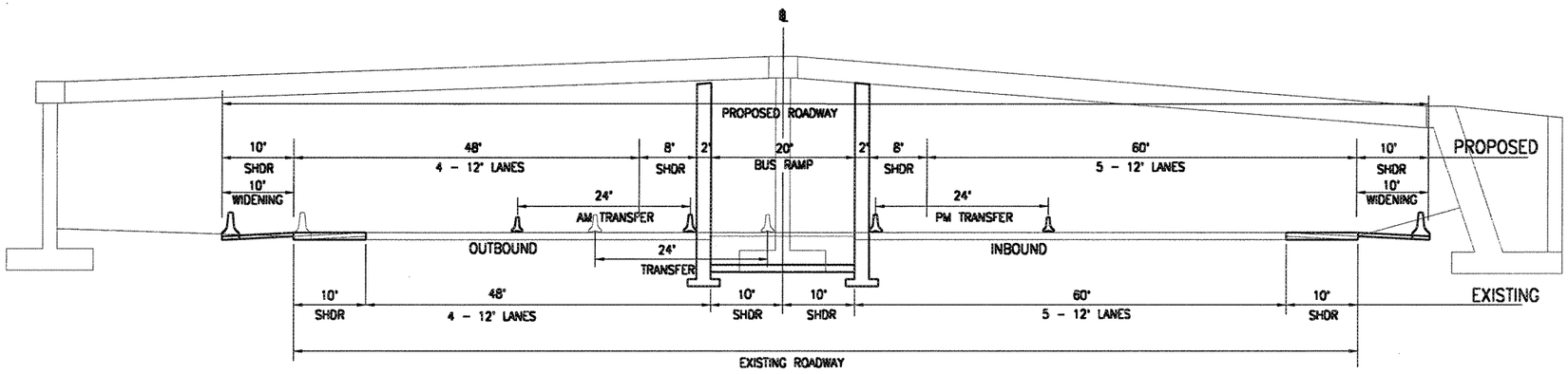
SECTIONS - 7

DRAWING NO.
R-51
DATE: 5-24-02 | SHEET NO. 57 OF 142

AR00016510



A H-1 (AT-GRADE)
R-12 R-52 1" = 10' (STA. 712+55 TO 716+18)



B PEDESTRIAN OVERPASS
R-12 R-52 1" = 10' (STA. 723+20)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

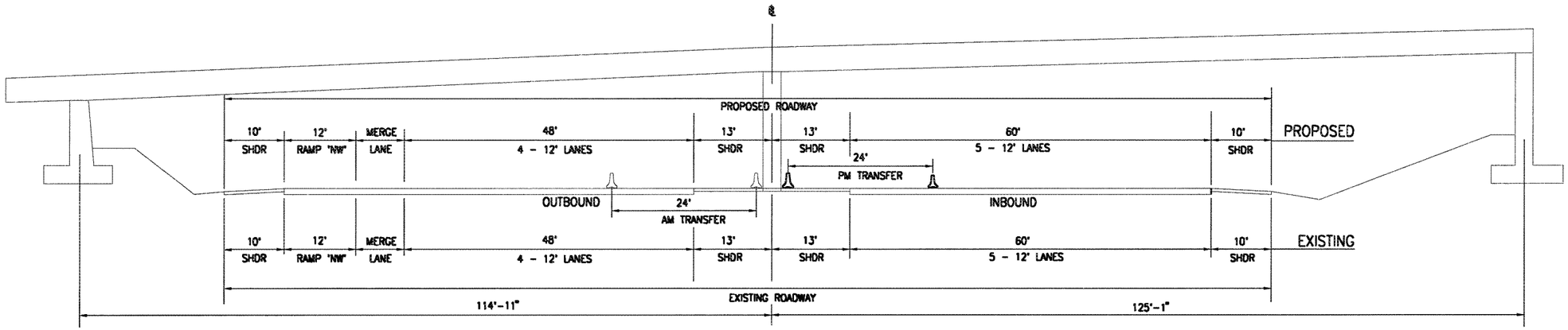
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

SECTIONS – 8

DRAWING NO.
R-52
DATE: 5-24-02 SHEET NO. **58** OF **142**

AR00016511



B R-13 R-53 RADFORD DRIVE OVERPASS
1" = 10' (STA. 755+15 TO STA. 756+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

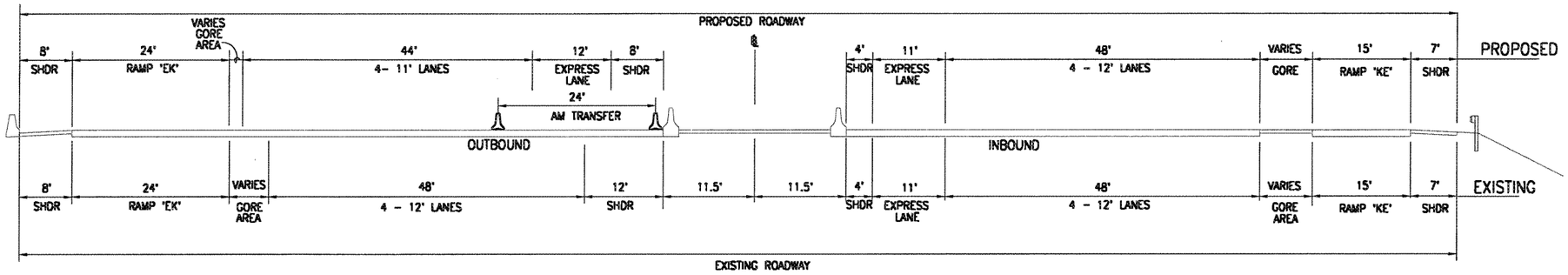
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

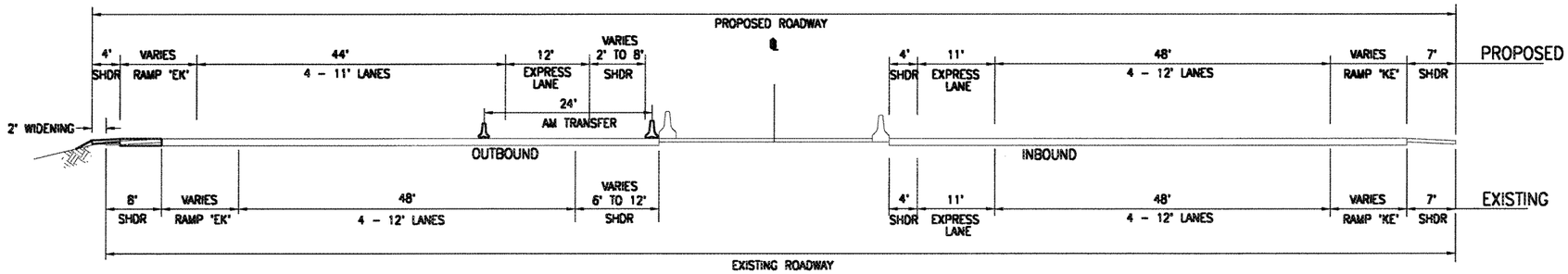
SECTIONS - 9

DRAWING NO.
R-53
DATE: 5-24-02 SHEET NO. 59 OF 142

AR00016512



B R-14 R-54 **H-1 (AT-GRADE)**
1" = 10' (STA. 776+00 TO 789+00)



C R-14 R-54 **H-1 (AT-GRADE)**
1" = 10' (STA. 791+05 TO 802+40)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

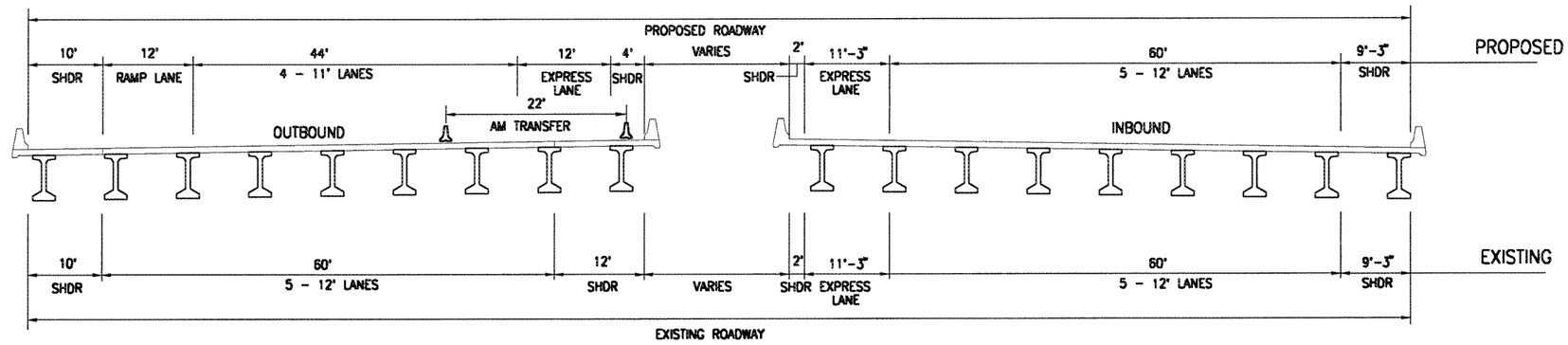
PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

SECTIONS - 10

DRAWING NO.
R-54
DATE: 5-24-02 SHEET NO. **60** OF **142**

AR00016513



B R-15 R-55 H-1 (VIADUCT SECTION)
1" = 10' (STA. 809+00 TO STA. 829+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

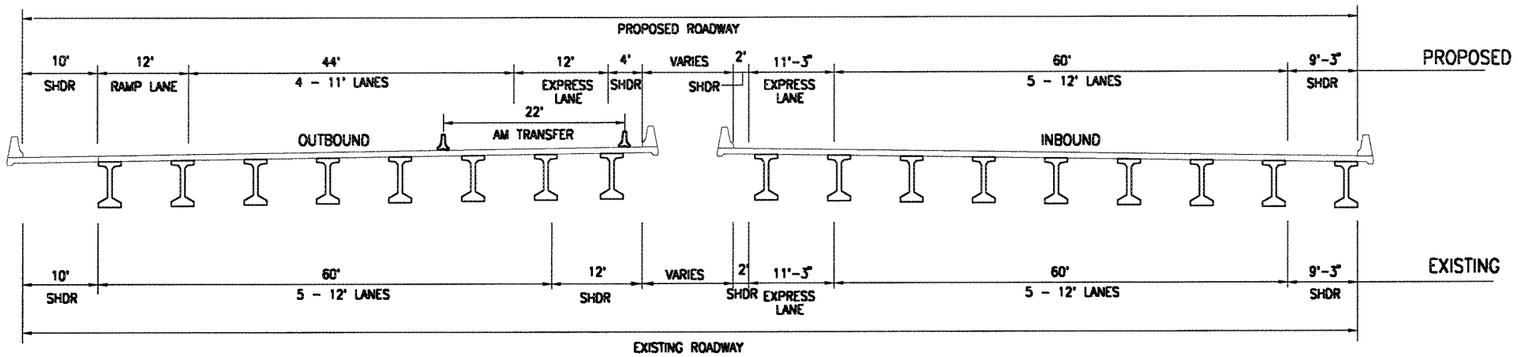
SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

SECTIONS - 11

DRAWING NO.
R-55

DATE: 5-24-02 SHEET NO. 61 OF 142

AR00016514



B
R-17 | R-56

H-1 (VIADUCT SECTION)

1" = 10' (STA. 881+00 TO STA. 890+00)

DISCLAIMER

EXISTING UTILITIES AND TOPOGRAPHICAL FEATURES FOR THE REGIONAL BRT ROUTE WERE COMPILED FROM AERIAL PHOTOS TAKEN ON JUNE 8 & 16, 2001 AND AVAILABLE RECORD DRAWINGS. R. M. TOWILL CORPORATION DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE RECORD INFORMATION SHOWN.

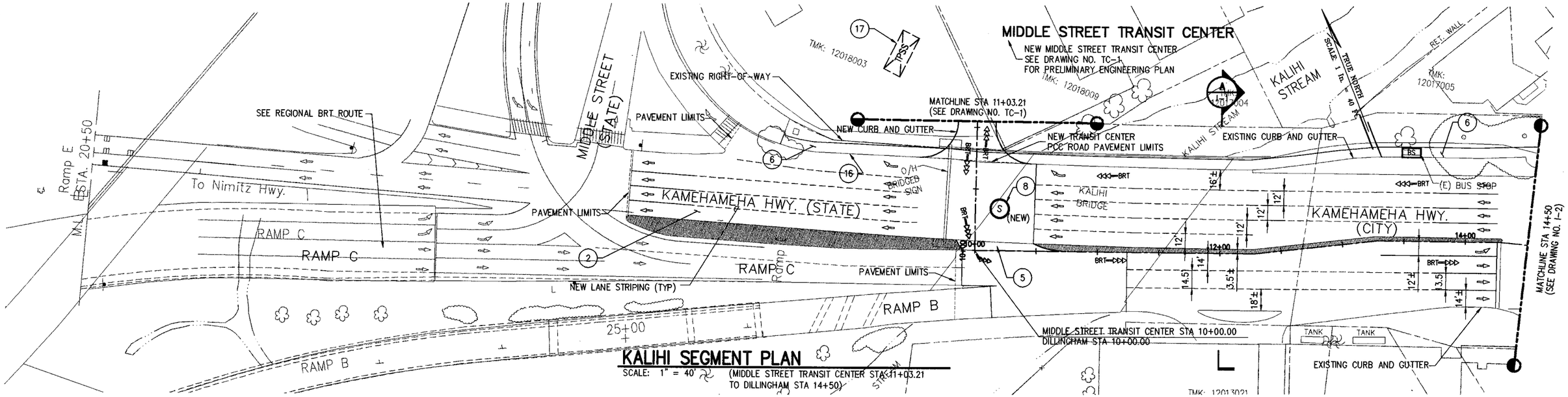
PRIMARY CORRIDOR
TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 10' 5' 0 10' 20'
FULL SIZE SCALE: 1" = 10'

SECTIONS - 12

DRAWING NO.
R-56
DATE: 5-24-02 | SHEET NO. **62** OF **142**

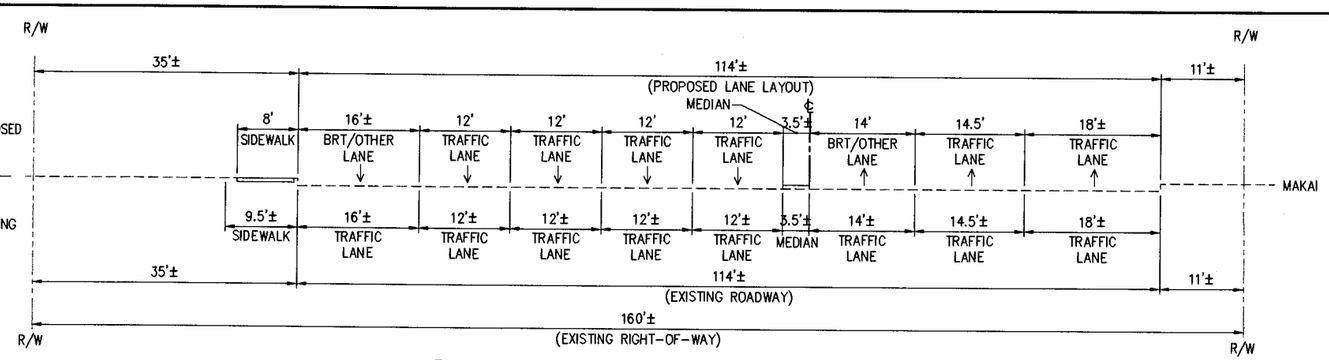
AR00016515



KALIHI SEGMENT PLAN

SCALE: 1" = 40'

(MIDDLE STREET TRANSIT CENTER STA 11+03.21 TO DILLINGHAM STA 14+50)



A / I-1 KAMEHAMEHA HWY. (DILLINGHAM BLVD.)

SCALE: 1"=10' (STA 12+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-1

DATE: 5-24-02 SHT. NO. 63 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\I-01 KALIHI SEGMENT PLAN AND SECTIONS.DWG 11/25/01 14:16 WGH

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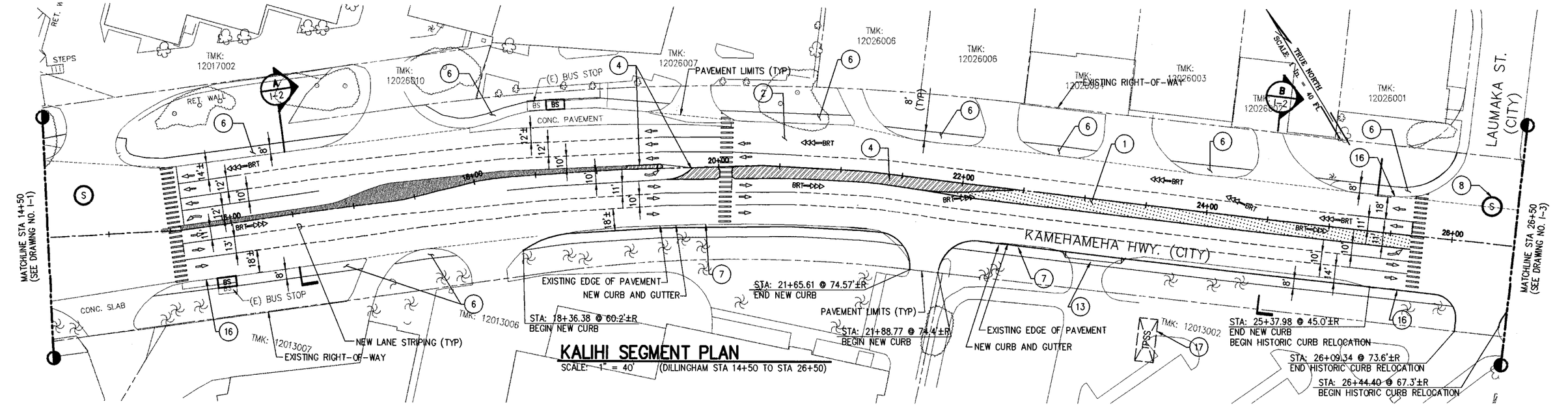
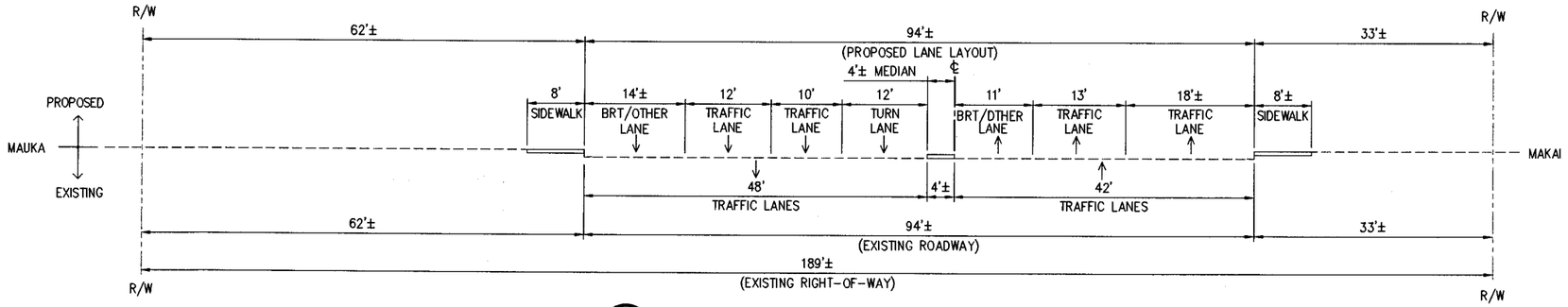
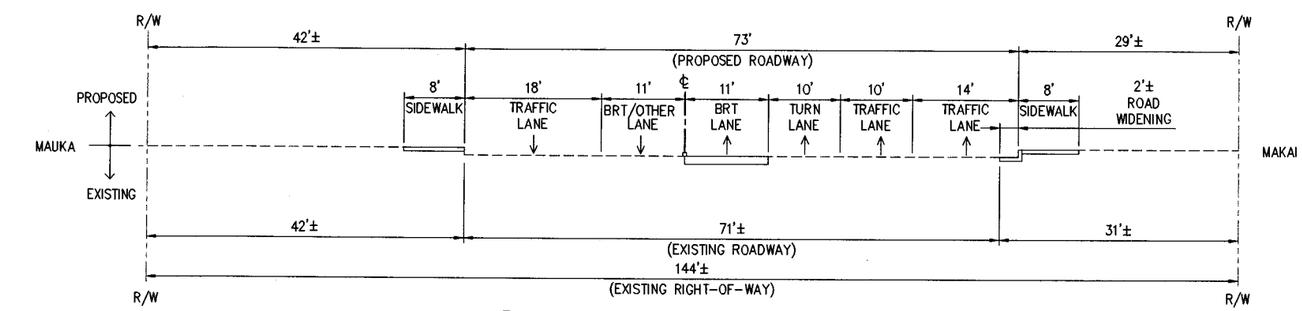


KALIHI SEGMENT PLAN

SCALE: 1" = 40' (DILLINGHAM STA 14+50 TO STA 26+50)



A I-2 KAMEHAMEHA HWY. (DILLINGHAM BLVD.)
SCALE: 1"=10' (STA 16+50)



B I-2 KAMEHAMEHA HWY. (DILLINGHAM BLVD.)
SCALE: 1"=10' (STA 24+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-2

DATE: 5-24-02 SHT. NO. 64 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\I-02 KALIHI SEGMENT PLAN AND SECTIONS.DWG 05/28/02 09:33 dl

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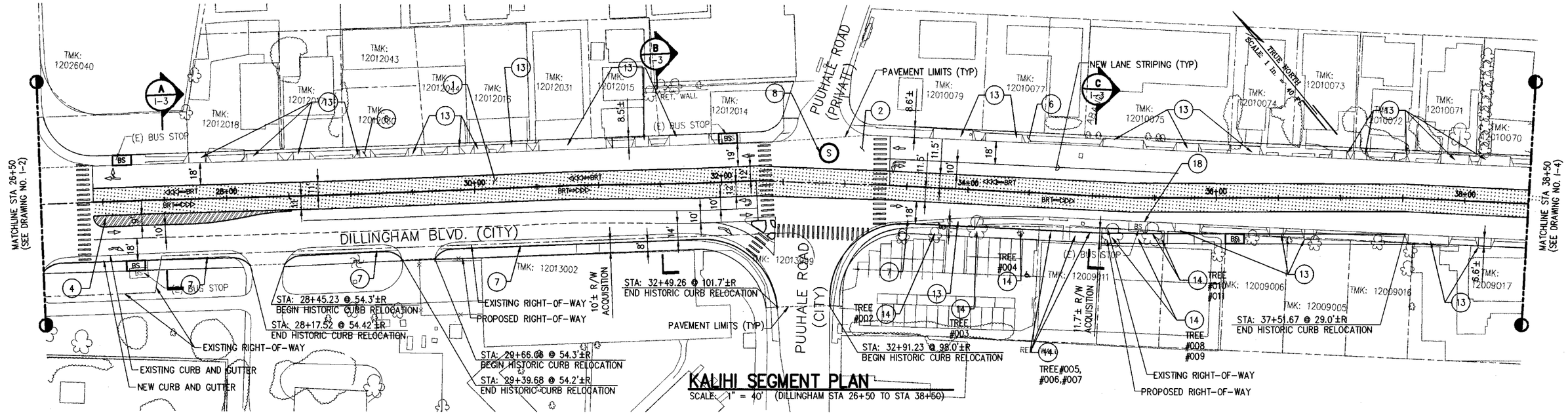
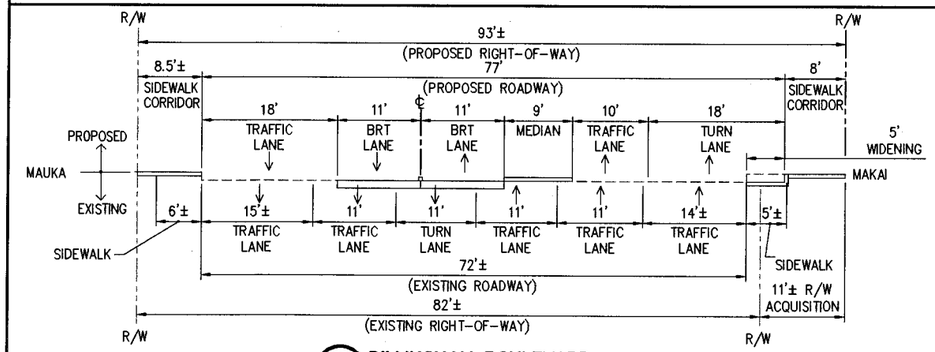
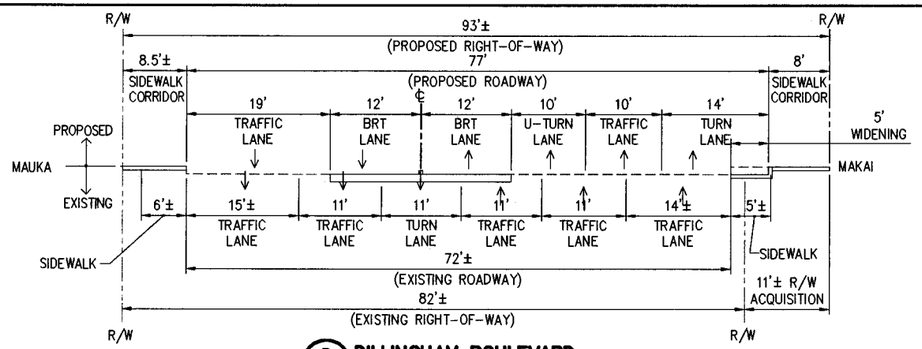
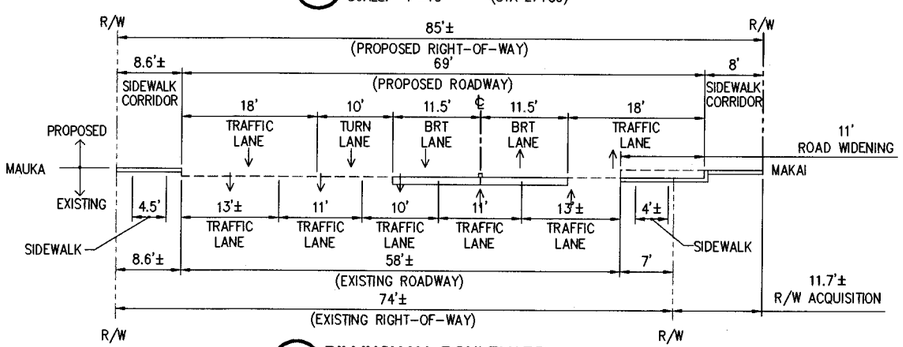




A I-3 **DILLINGHAM BOULEVARD**
SCALE: 1"=10' (STA 27+50)



B I-3 **DILLINGHAM BOULEVARD**
SCALE: 1"=10' (STA 31+50)



C I-3 **DILLINGHAM BOULEVARD**
SCALE: 1"=10' (STA. 35+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-3
DATE: 5-24-02 SHT. NO. 65 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\I-03 KALIHI SEGMENT PLAN AND SECTIONS.DWG 05/28/02 13:24 JCH

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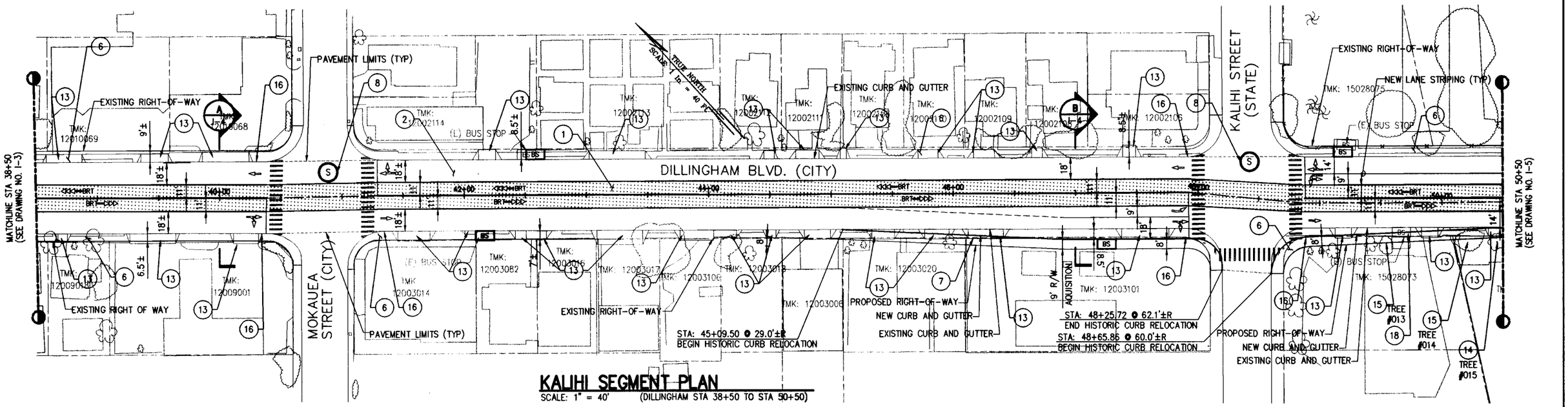
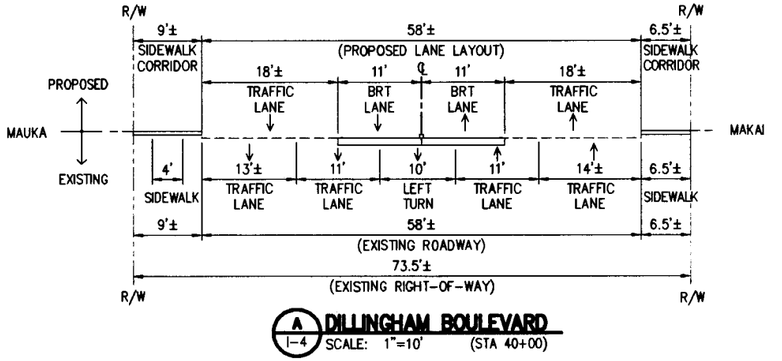
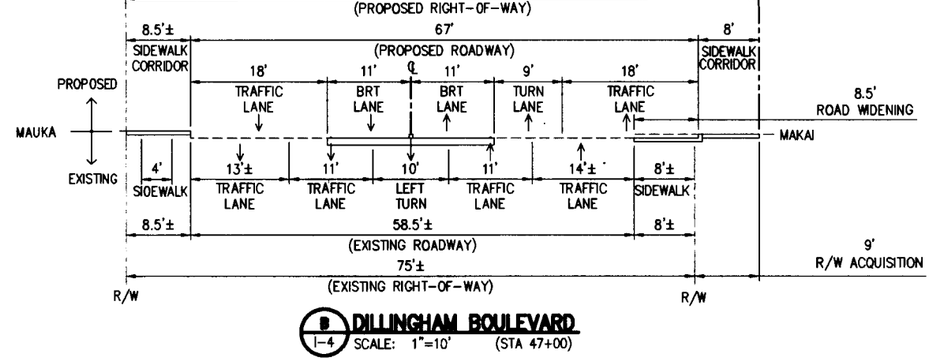


KALIHI SEGMENT PLAN

SCALE: 1" = 40' (DILLINGHAM STA 38+50 TO STA 50+50)



A I-4 DILLINGHAM BOULEVARD
SCALE: 1"=10' (STA 40+00)



B I-4 DILLINGHAM BOULEVARD
SCALE: 1"=10' (STA 47+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-4

DATE: 6-27-03 | SHT. NO. 66 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\I-04 KALIHI SEGMENT PLAN AND SECTIONS 030627.DWG 06/27/03 15:22 jch

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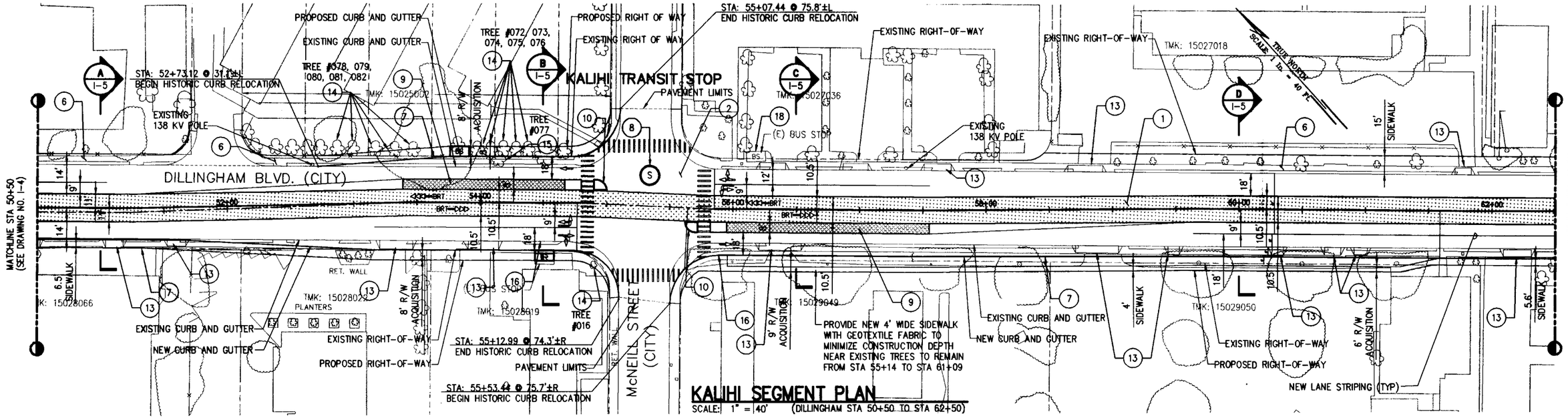
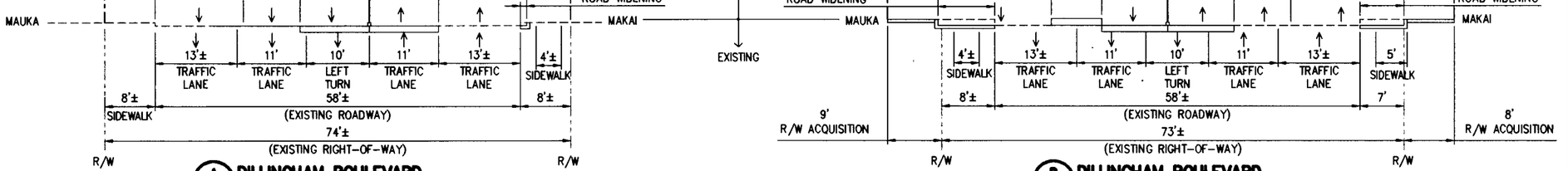


KALIHI SEGMENT PLAN

SCALE: 1" = 40' (DILLINGHAM STA 50+50 TO STA 62+50)



CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 8" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-5

DATE: 6-27-03 | SHT. NO. 67 OF 142

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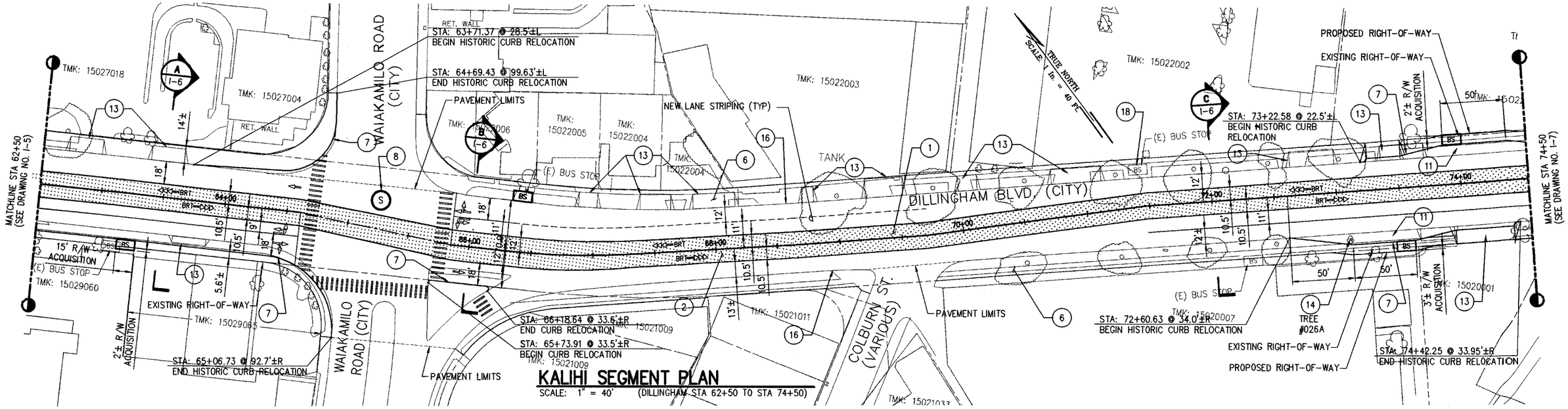
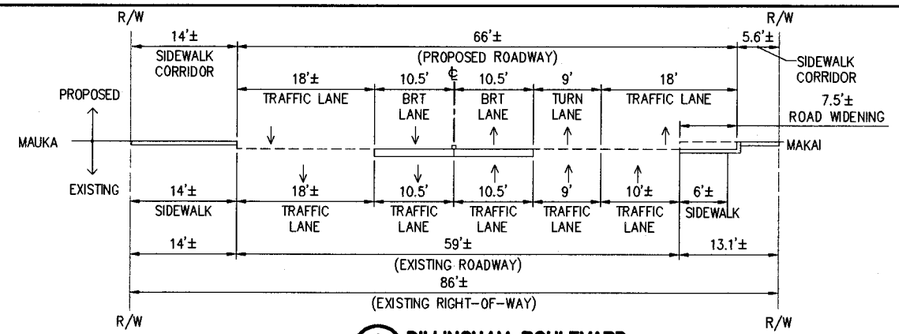
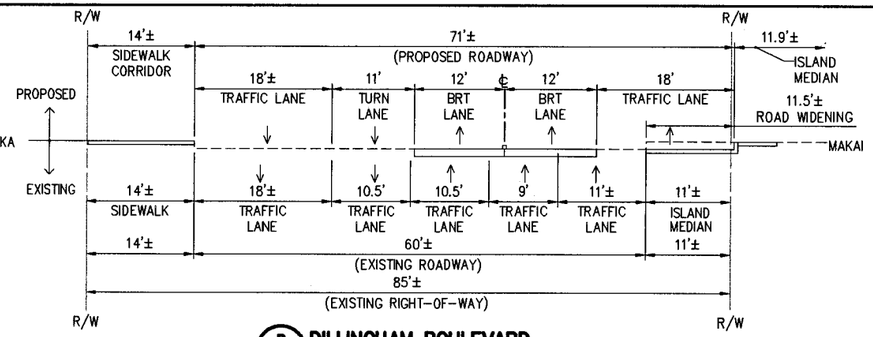


KALIHI SEGMENT PLAN

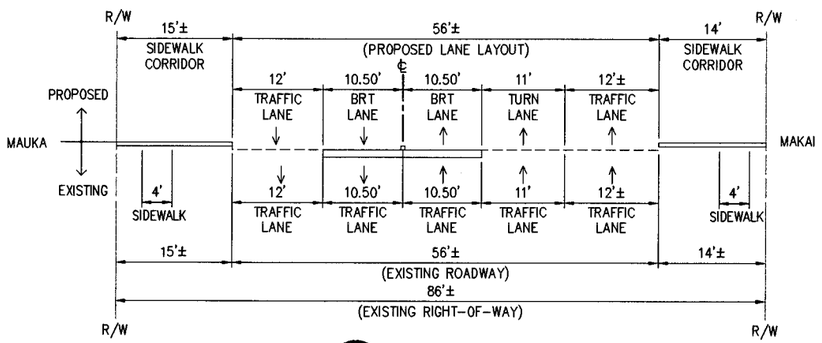
SCALE: 1" = 40' (DILLINGHAM STA 62+50 TO STA 74+50)



A I-6 DILLINGHAM BOULEVARD
SCALE: 1"=10' (STA. 63+50)



B I-6 DILLINGHAM BOULEVARD
SCALE: 1"=10' (STA. 66+00)



C I-6 DILLINGHAM BOULEVARD
SCALE: 1"=10' (STA. 72+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION (S)
- TRACTION POWER SUPPLY STATION (TPSS)
- BRT ROUTE (BRT)
- ADA CURB RAMP
- BUS STOP (BS)
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-6

DATE:10-23-02 SHT. NO. 68 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\I-06 KALIHI SEGMENT PLAN AND SECTIONS.DWG 10/23/02 14:14 WGH

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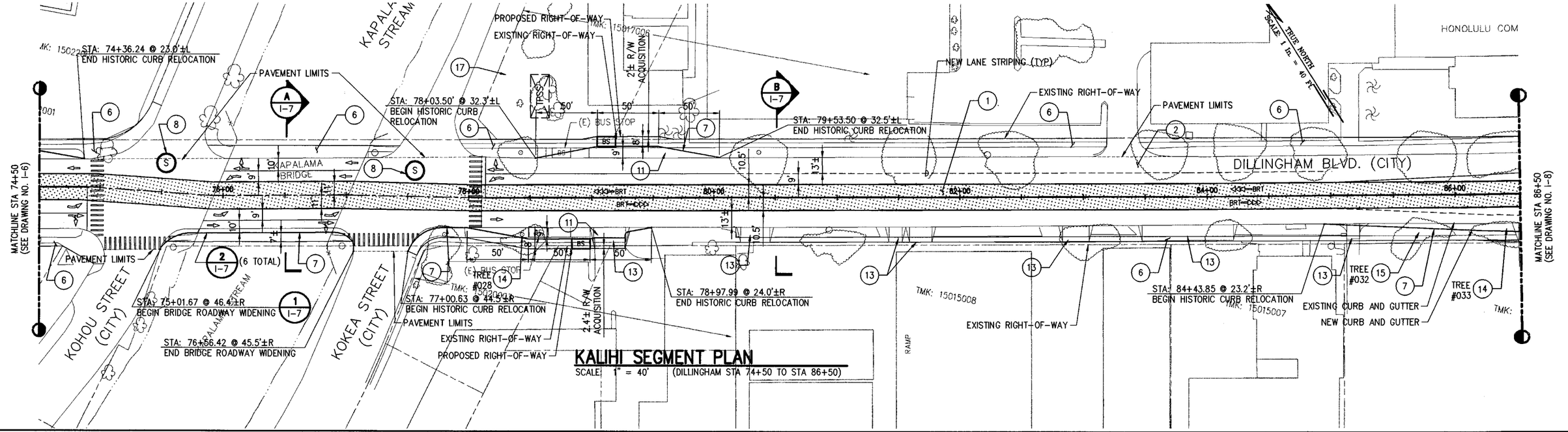
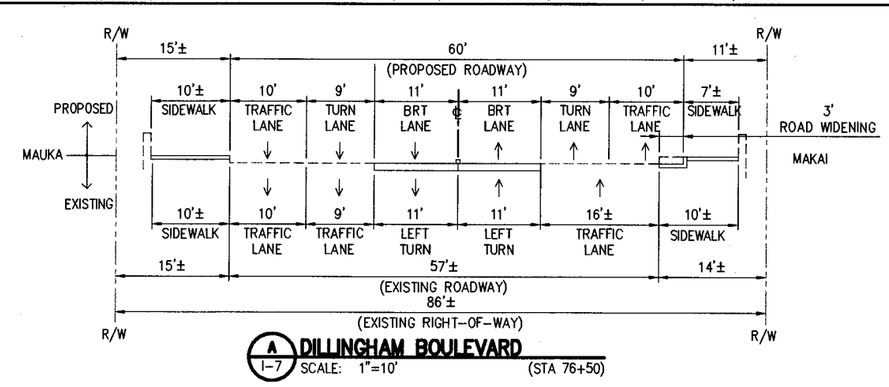
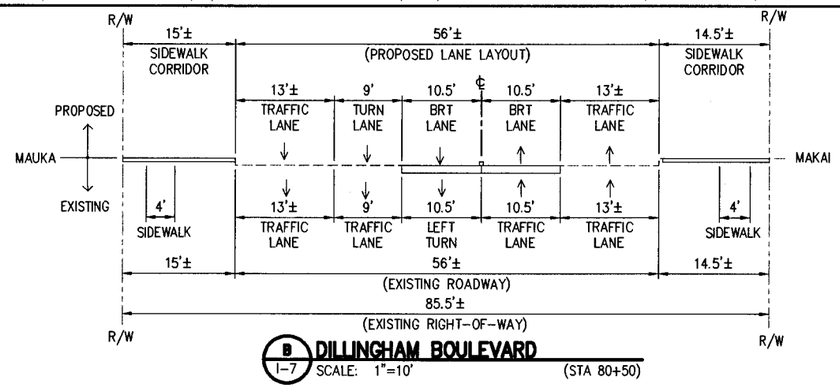
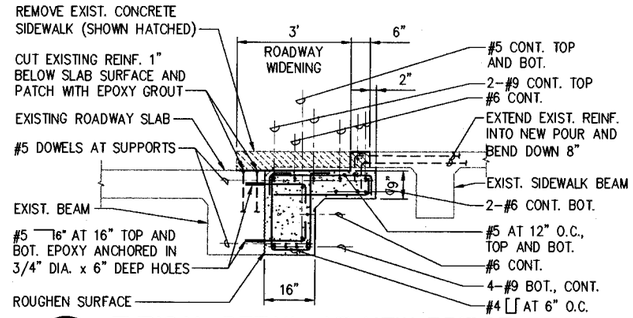




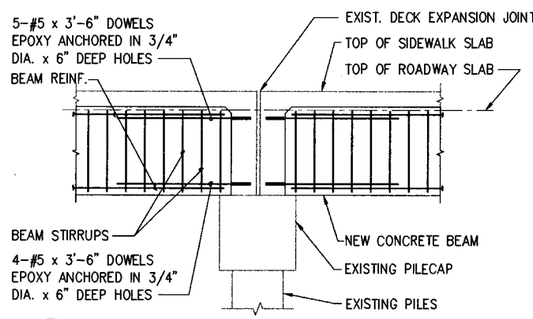
A I-7 **DILLINGHAM BOULEVARD**
SCALE: 1"=10' (STA 76+50)



B I-7 **DILLINGHAM BOULEVARD**
SCALE: 1"=10' (STA 80+50)



1 I-7 **TYPICAL DETAIL AT NEW BRIDGE BEAM**
SCALE: 1" = 2'



2 I-7 **DETAIL AT BRIDGE SUPPORT**
SCALE: 1" = 2'

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-7

DATE:10-23-02 SHT. NO. **69** OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\I-07 KALIHI SEGMENT PLAN AND SECTIONS.DWG 07/06/02 19:04 wgh

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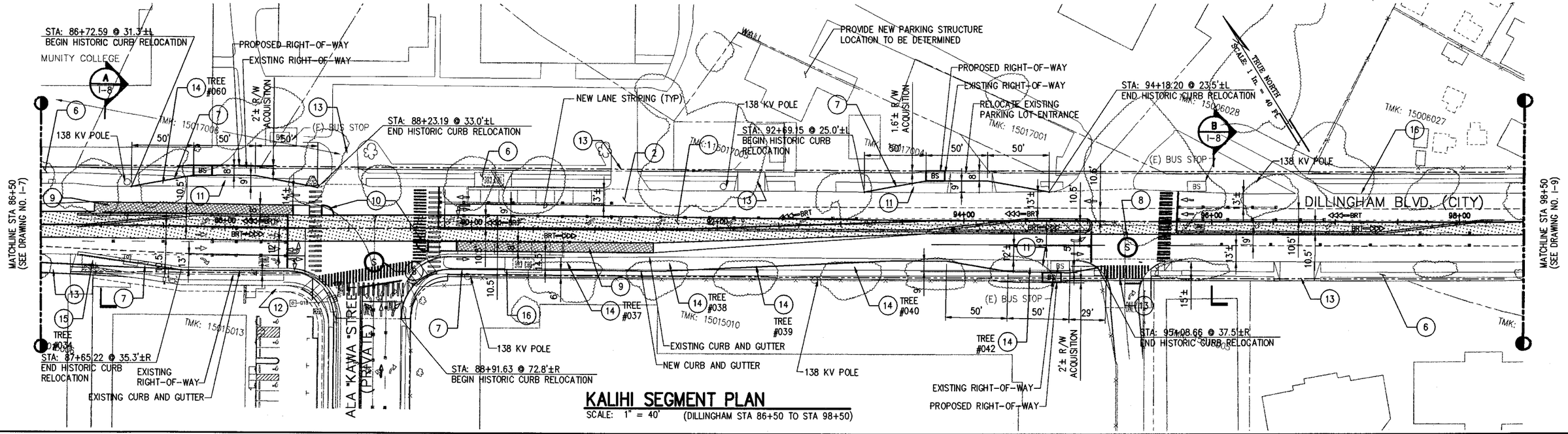
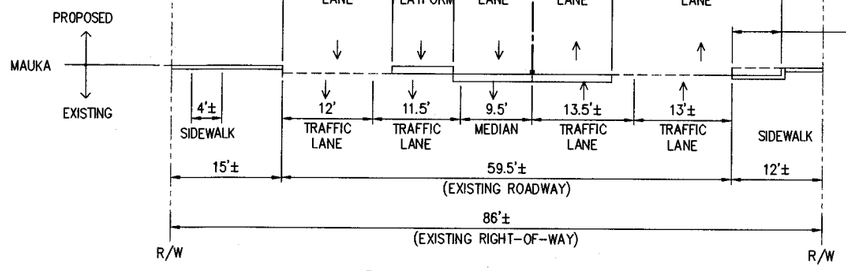
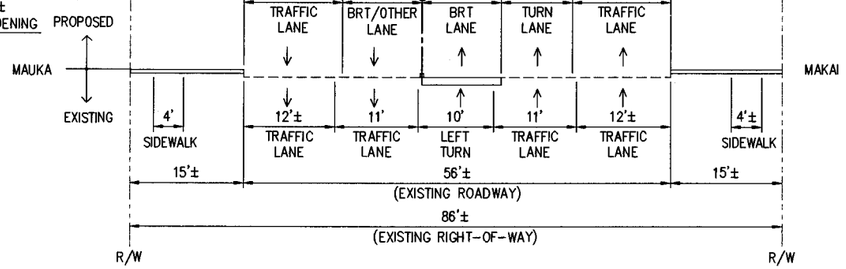


KALIHI SEGMENT PLAN

SCALE: 1" = 40' (DILLINGHAM STA 86+50 TO STA 98+50)



A I-8 **DILLINGHAM BOULEVARD**
SCALE: 1"=10' (STA. 87+00)



B I-8 **DILLINGHAM BOULEVARD**
SCALE: 1"=10' (STA. 96+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- S SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-8

DATE:10-23-02 SHT. NO. 70 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\I-08 KALIHI SEGMENT PLAN AND SECTIONS.DWG 07/06/02 19:05 wgh

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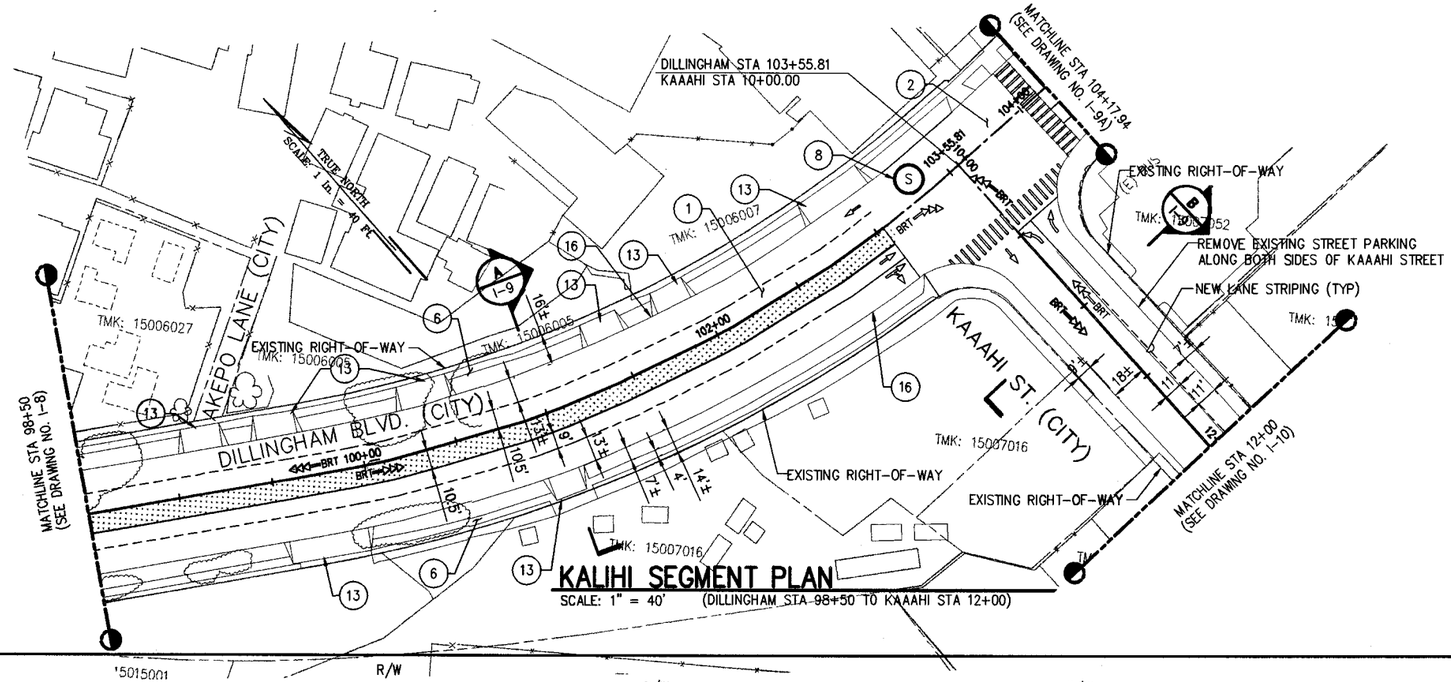
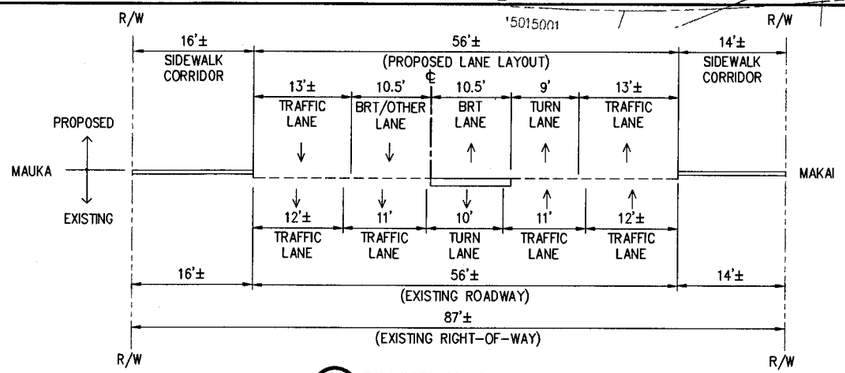
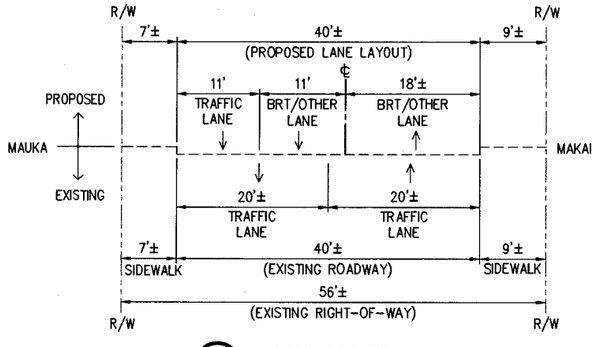


KALIHI SEGMENT PLAN

SCALE: 1" = 40' (DILLINGHAM STA 98+50 TO KAAAHI STA 12+00)



A I-9 **DILLINGHAM BOULEVARD**
SCALE: 1"=10' (STA 101+00)



B I-9 **KAAAHI STREET**
SCALE: 1"=10' (STA 11+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHDWN. PRDVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- S SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT RDUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-9

DATE: 5-24-02 SHT. NO. 71 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\I-09 KALIHI SEGMENT PLAN AND SECTIONS.DWG 05/28/02 09:45 dl

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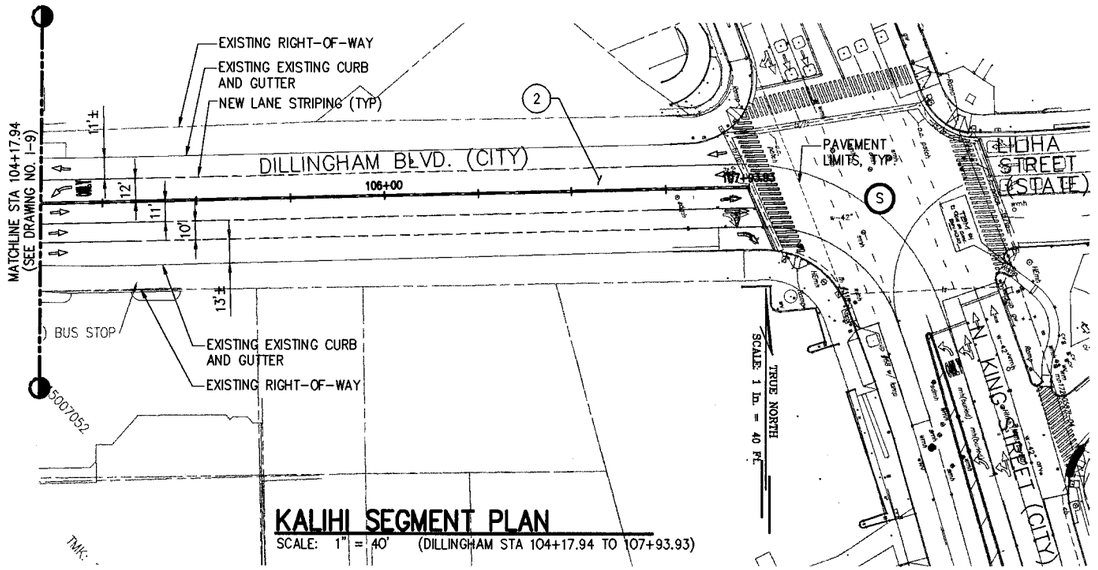

KALIHI SEGMENT PLAN

SCALE: 1" = 40' (DILLINGHAM STA 104+17.94 TO 107+93.93)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
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11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN

DRAWING NO. I-9A

DATE: 5-24-02 SHT. NO. 72 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\I-09A KALIHI SEGMENT PLAN AND SECTIONS.DWG 11/23/01 18:04 WGH

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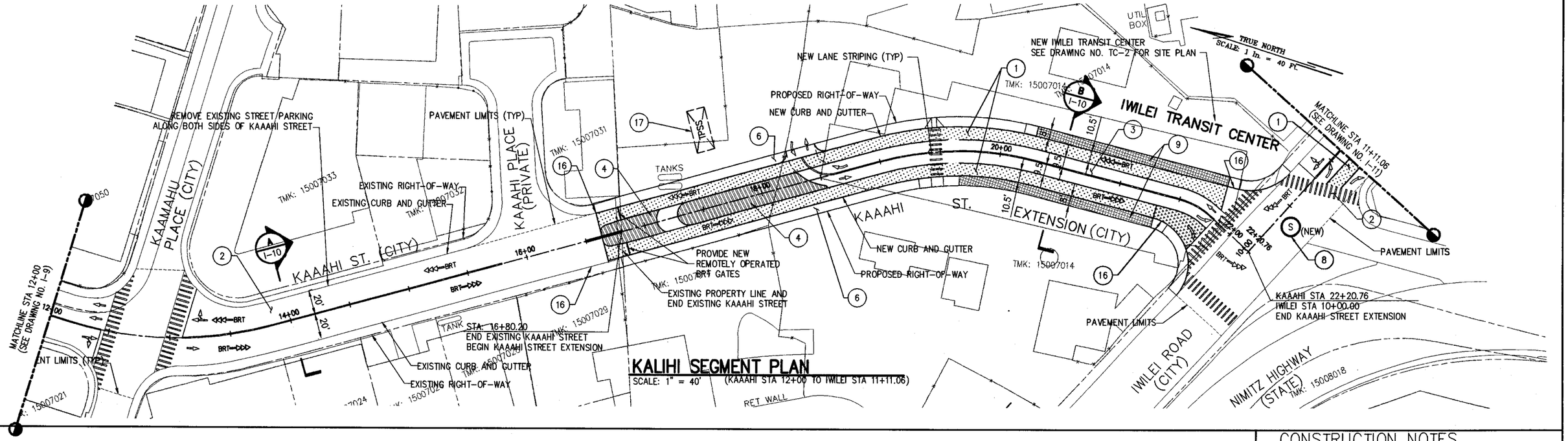
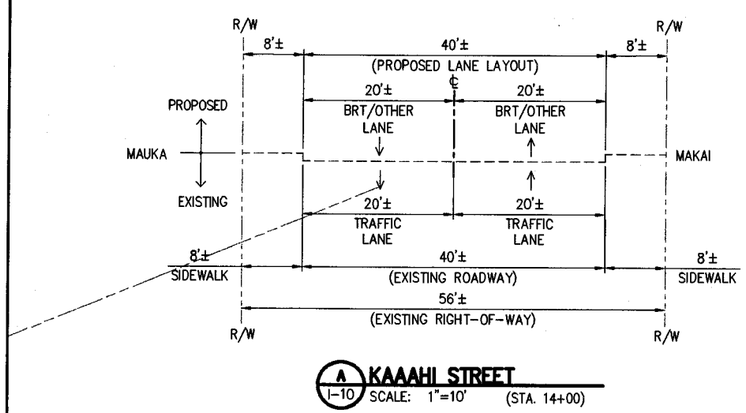
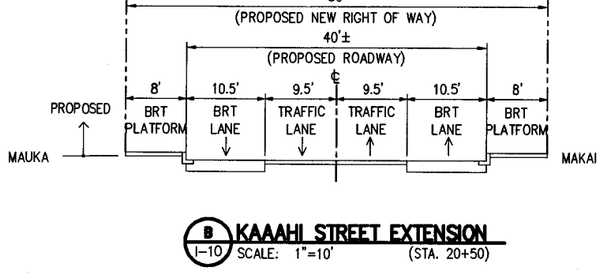


KALIHI SEGMENT PLAN

SCALE: 1" = 40' (KAAAHI STA 12+00 TO IWILEI STA 11+11.06)



A I-10 KAAAHI STREET
SCALE: 1"=10' (STA. 14+00)



B I-10 KAAAHI STREET EXTENSION
SCALE: 1"=10' (STA. 20+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KALIHI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTION

DRAWING NO. I-10

DATE: 5-24-02 SHT. NO. 73 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\I-10 KALIHI SEGMENT PLAN AND SECTIONS.DWG 11/23/01 18:04 WGH

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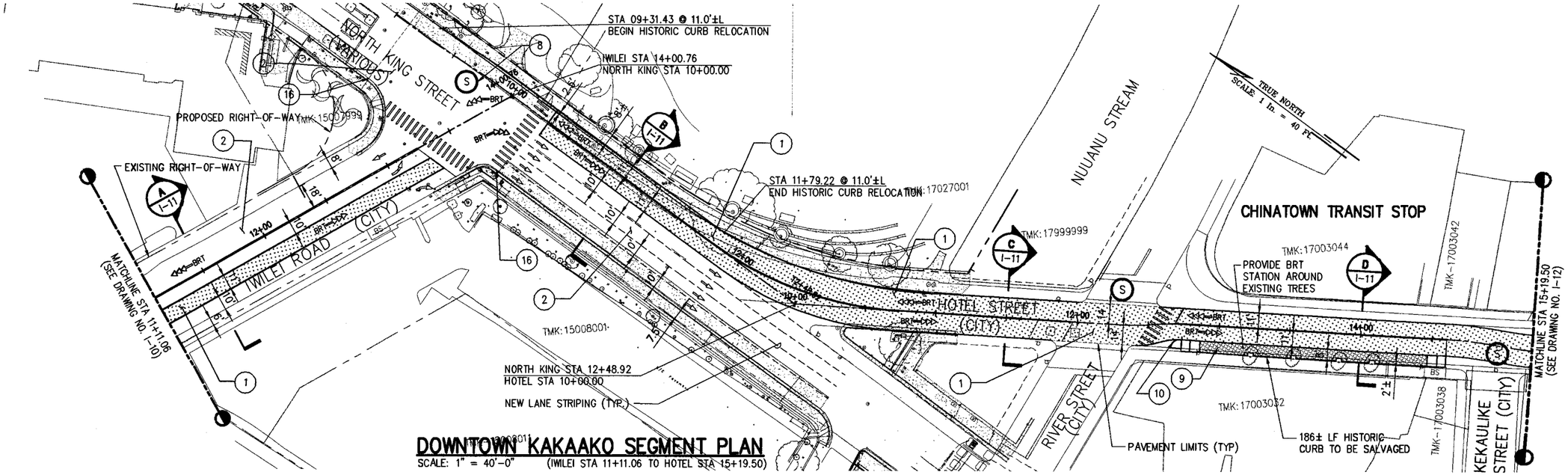
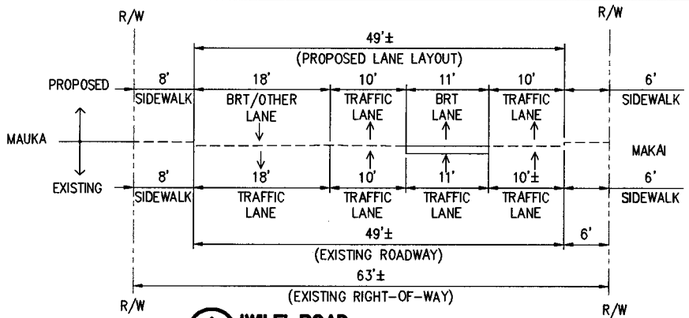
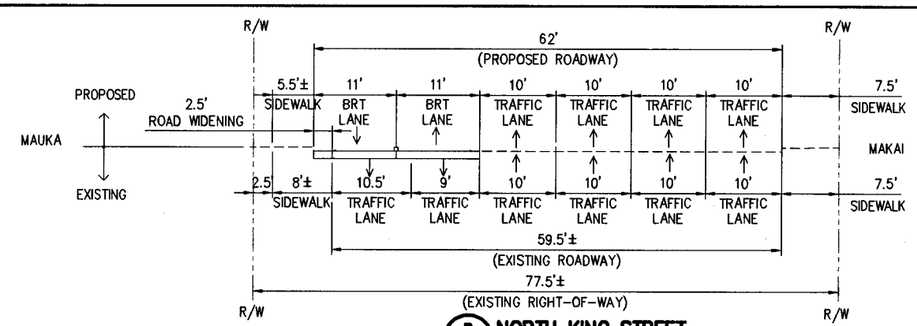


DOWNTOWN KAKAAKO SEGMENT PLAN

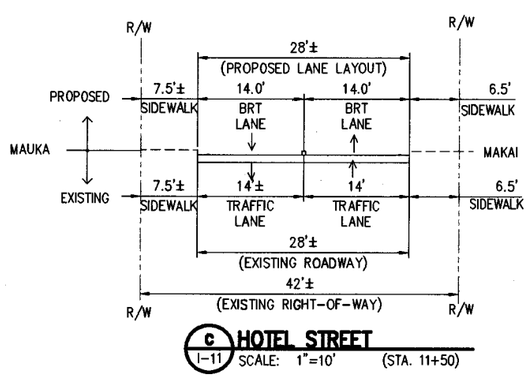
SCALE: 1" = 40'-0" (IWILEI STA 11+11.06 TO HOTEL STA 15+19.50)



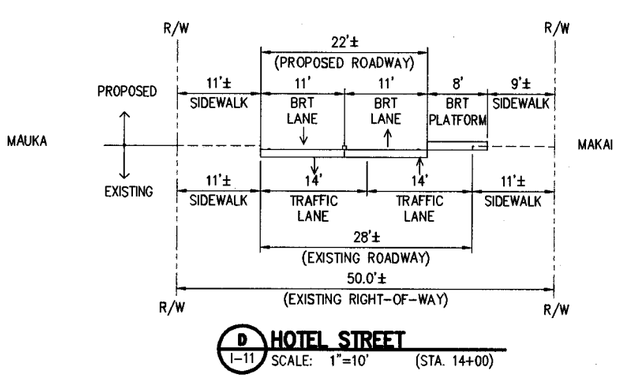
A I-11 **IWILEI ROAD**
SCALE: 1"=10' (STA 11+50)



B I-11 **NORTH KING STREET**
SCALE: 1"=10' (STA. 11+00)



C I-11 **HOTEL STREET**
SCALE: 1"=10' (STA. 11+50)



D I-11 **HOTEL STREET**
SCALE: 1"=10' (STA. 14+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PRDVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
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12. REMOVE EXISTING BUS STOP COMPLETE
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14. RELOCATE EXISTING TREE
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17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
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IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-11

DATE: 5-24-02 SHT. NO. **74** OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-11 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/25/01 15:15 WGH

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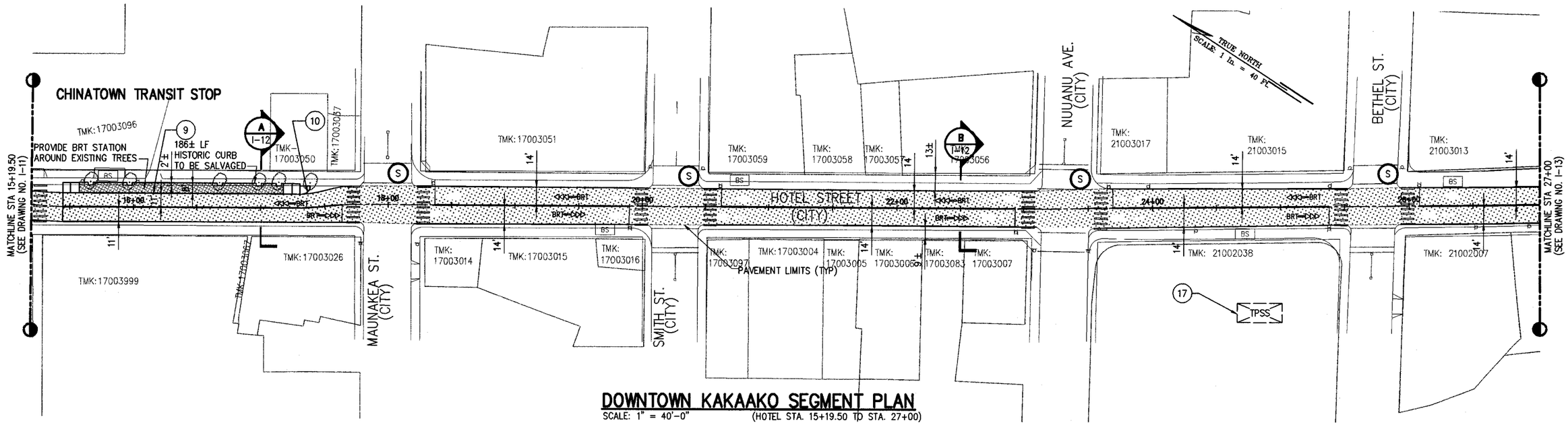
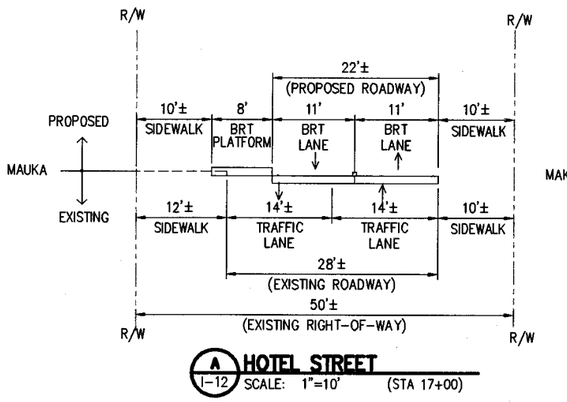
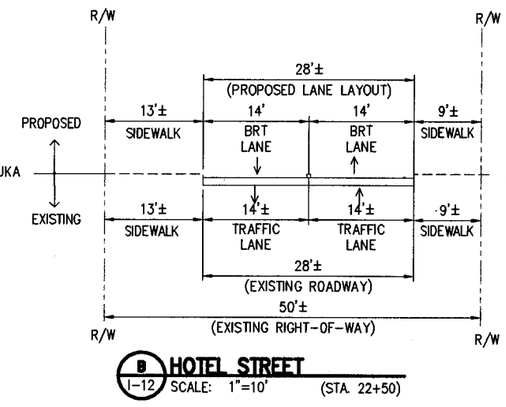


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (HOTEL STA. 15+19.50 TO STA. 27+00)





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11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
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17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-12

DATE: 5-24-02 | SHT. NO. 75 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-12 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/18/01 08:24 DaY

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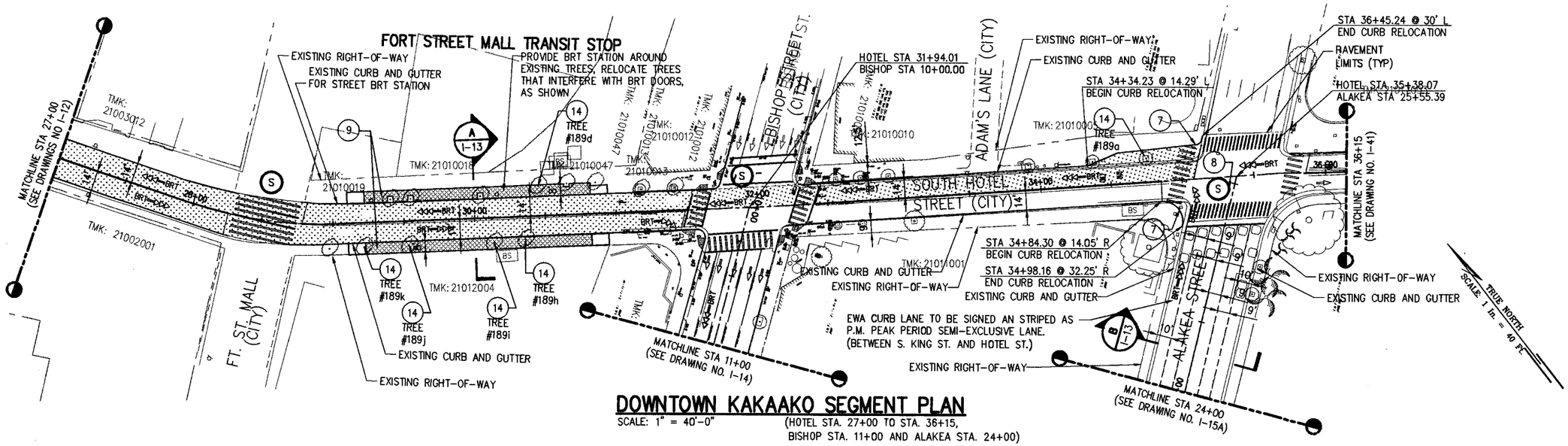
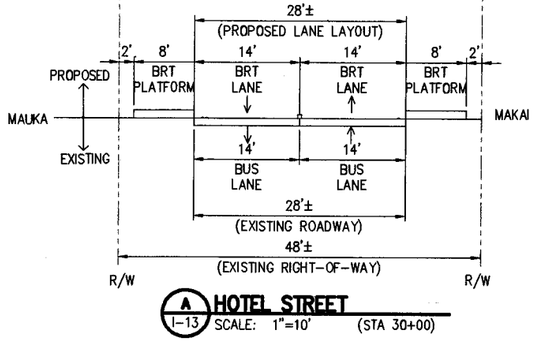
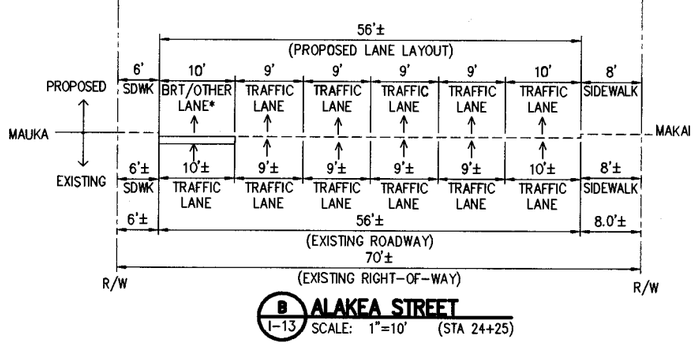


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (HOTEL STA. 27+00 TO STA. 36+15, BISHOP STA. 11+00 AND ALAKEA STA. 24+00)



A I-13 HOTEL STREET
SCALE: 1"=10' (STA 30+00)



B I-13 ALAKEA STREET
SCALE: 1"=10' (STA 24+25)

* NOTE: SEMI-EXCLUSIVE DURING P.M. PEAK HOURS

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- S SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-13

DATE:10-23-02 SHT. NO. 76 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-13 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 10/23/02 14:15 WGH

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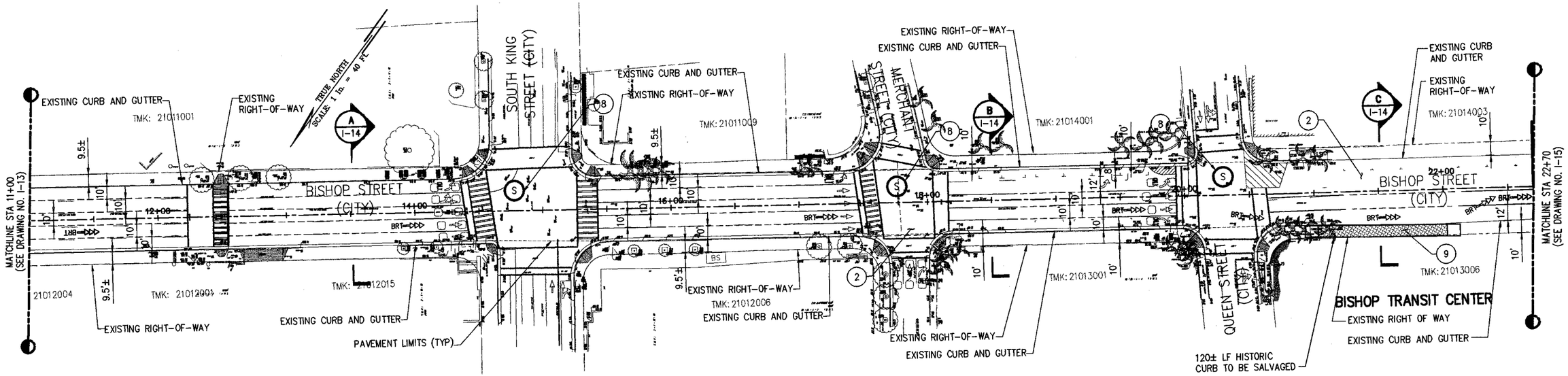
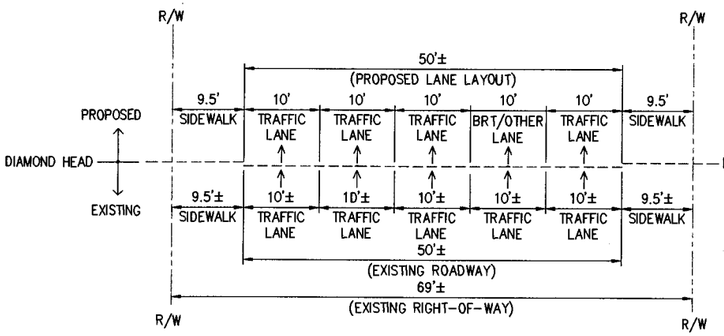
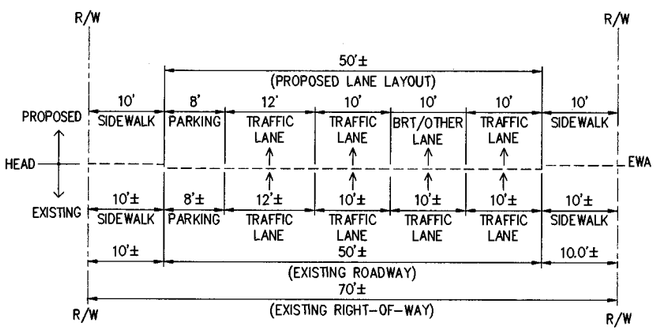


DOWNTOWN KAKAAKO SEGMENT PLAN

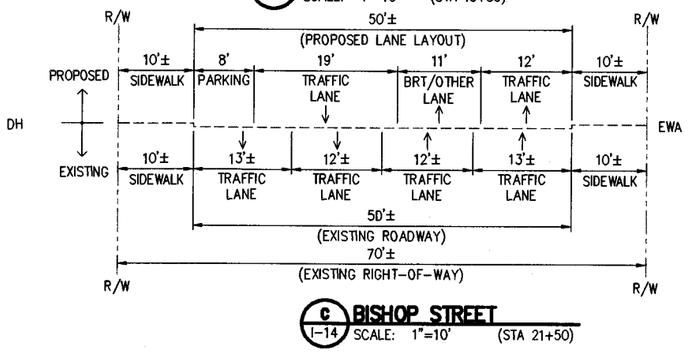
SCALE: 1" = 40'-0" (BISHOP STA. 11+00 TO STA. 22+70)



A I-14 **BISHOP STREET** SCALE: 1"=10' (STA 13+50)



B I-14 **BISHOP STREET** SCALE: 1"=10' (STA 18+50)



C I-14 **BISHOP STREET** SCALE: 1"=10' (STA 21+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
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12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PRDVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-14

DATE: 5-24-02 | SHT. NO. 77 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTDWN KAKAAKO SEGMENT\I-14 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 05/28/02 11:15 WGH

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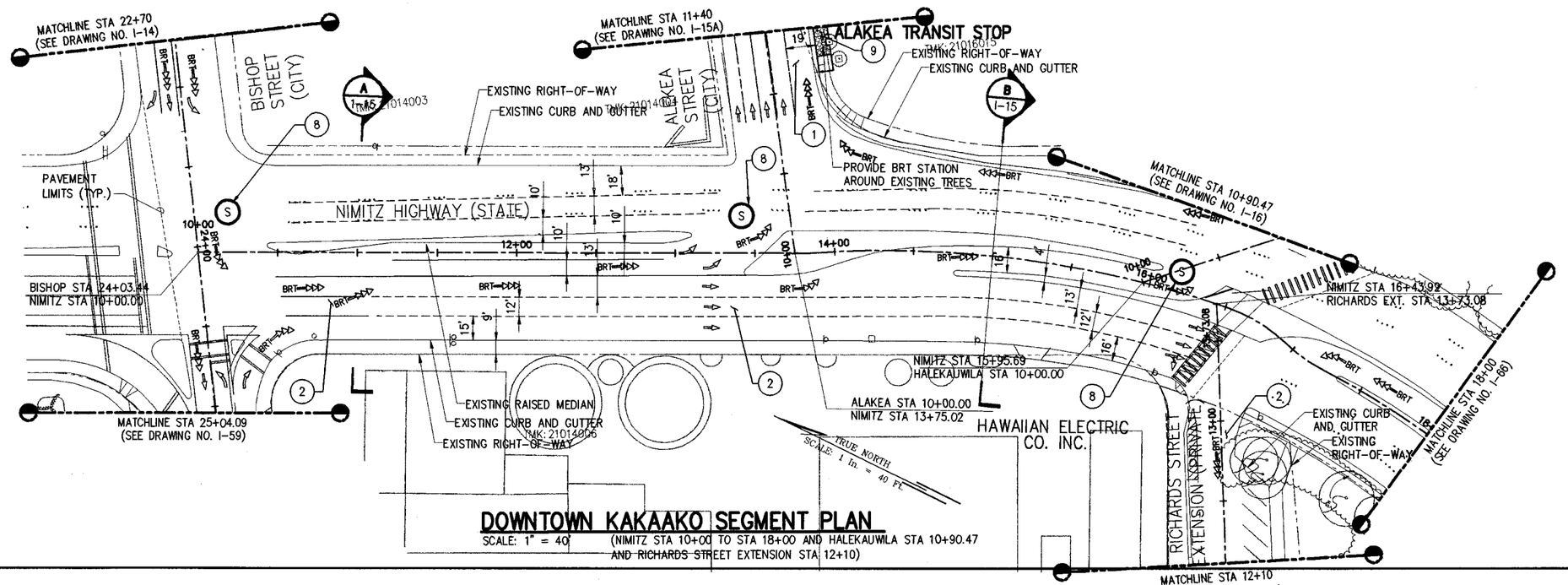
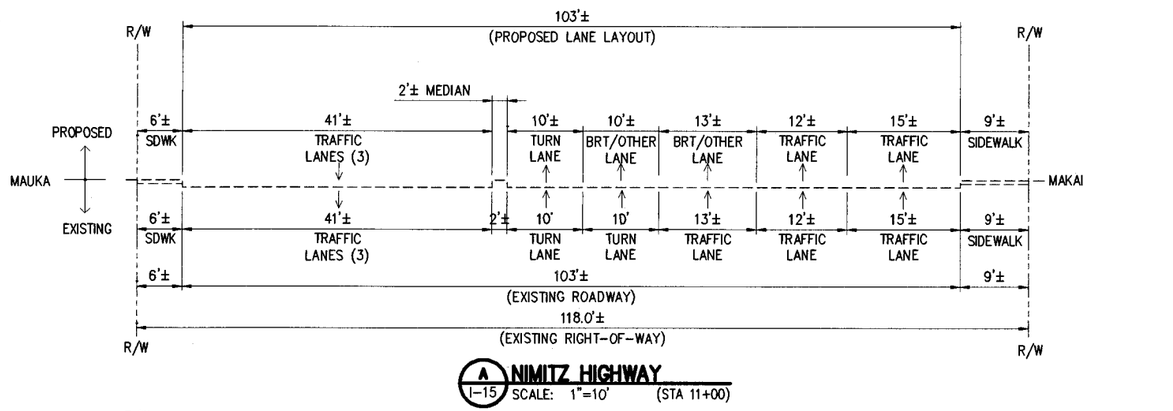
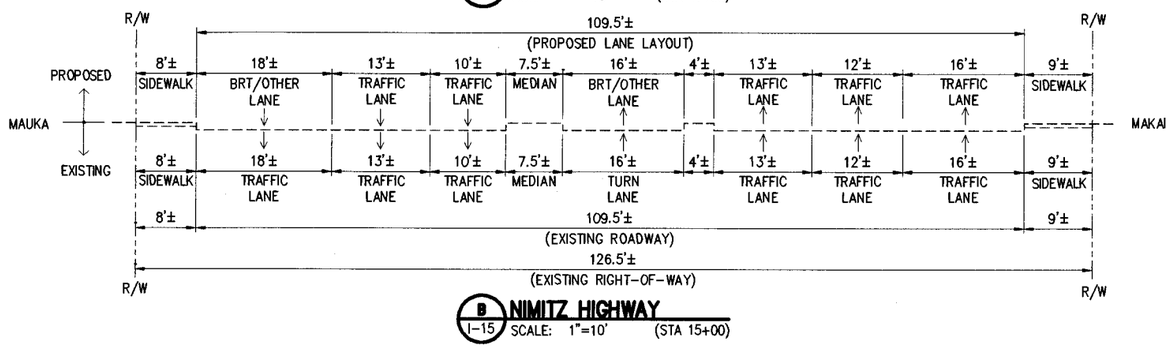


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40' (NIMITZ STA 10+00 TO STA 18+00 AND HALEKAUWILA STA 10+90.47 AND RICHARDS STREET EXTENSION STA 12+10)



A NIMITZ HIGHWAY
I-15 SCALE: 1"=10' (STA 11+00)



B NIMITZ HIGHWAY
I-15 SCALE: 1"=10' (STA 15+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW ORAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-15

DATE: 5-24-02 SHT. NO. 78 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-15 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 05/28/02 13:48 JCH

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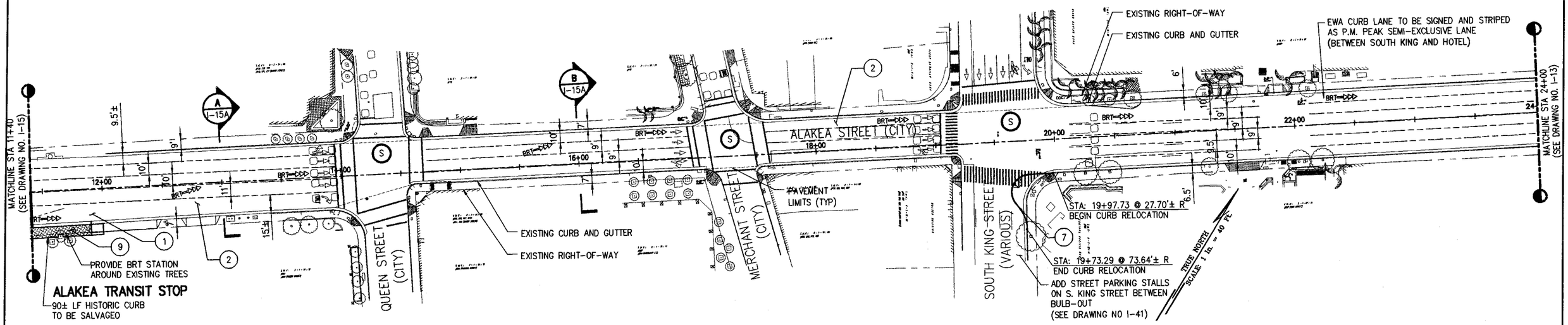
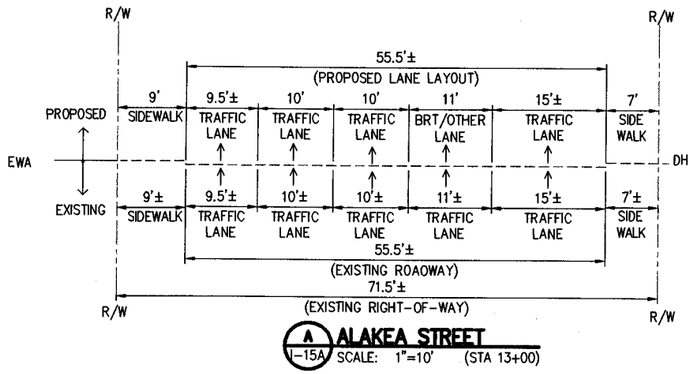
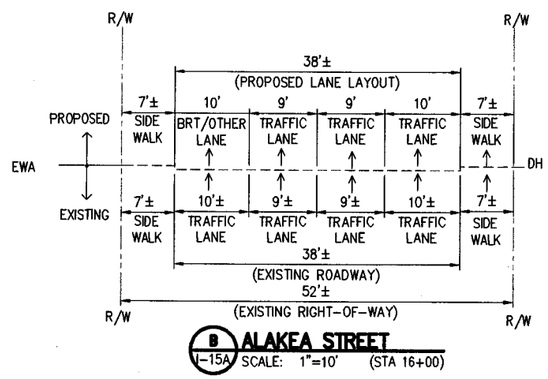


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (ALAKEA STA. 11+40 TO STA. 24+00)



A I-15A **ALAKEA STREET**
SCALE: 1"=10' (STA 13+00)



B I-15A **ALAKEA STREET**
SCALE: 1"=10' (STA 16+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PRDVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NDTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- S — SIGNALIZED INTERSECTION
- TPSS — TRACTION POWER SUPPLY STATION
- BRT — BRT ROUTE
- ADA CURB RAMP
- BS — BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO.
I-15A

DATE:10-23-02 SHT. NO. 79 OF 142

I:\2000\2000_285.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\0-DOWNTOWN KAKAAKO SEGMENT\I-15A DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 10/23/02 14:17 WGH

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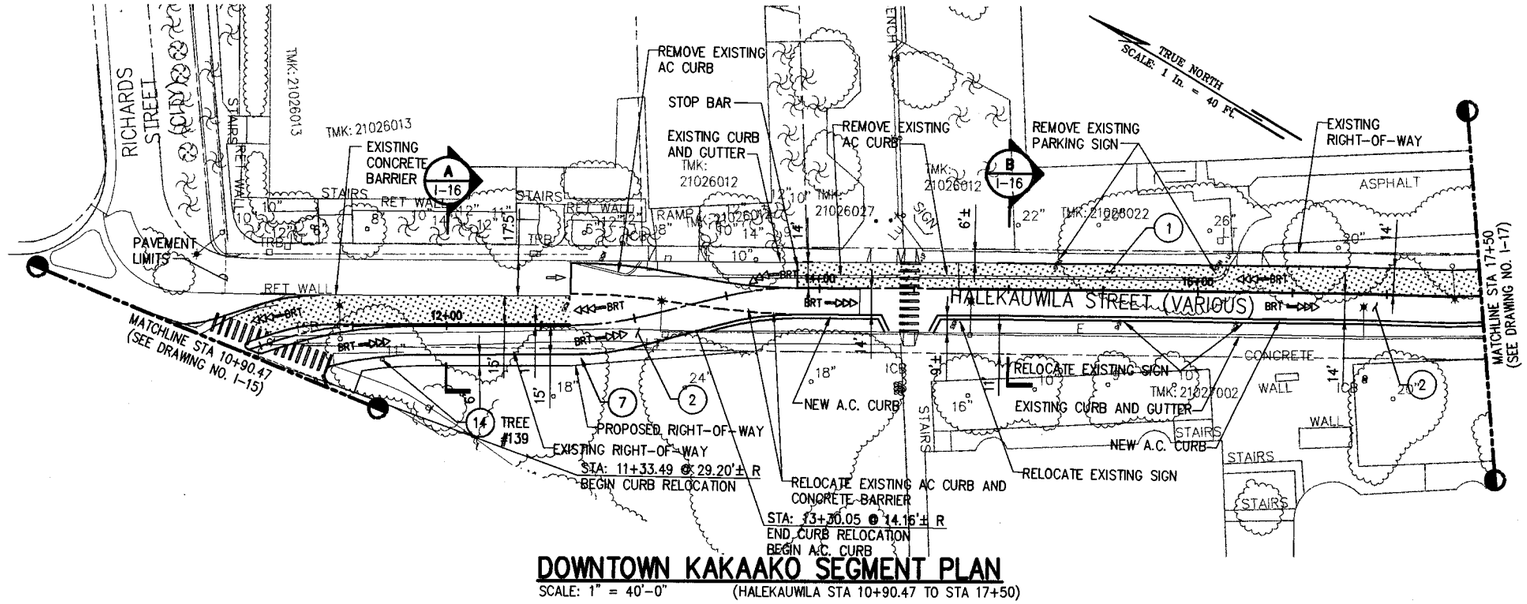
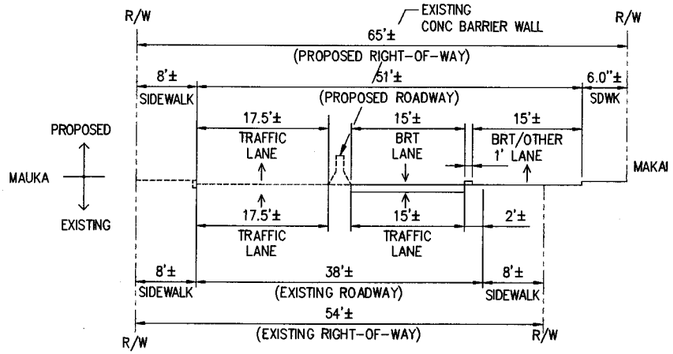
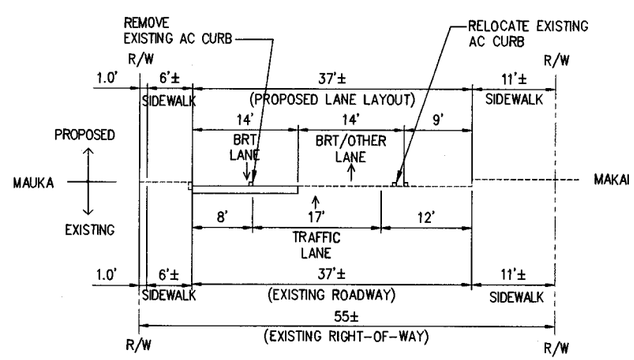


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'–0" (HALEKAUWILA STA 10+90.47 TO STA 17+50)



A I-16 **HALEKAUWILA STREET**
SCALE: 1"=10' (STA 12+00)



B I-16 **HALEKAUWILA STREET**
SCALE: 1"=10' (STA 15+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN–TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I–16

DATE: 5–24–02 SHT. NO. 80 OF 142

I:\20DD\2000_286.DOO BRT\G DRAWINGS\CONTRACT DOCUMENTS\D–DOWNTOWN KAKAAKO SEGMENT\I–16 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/18/01 09:22 DaY

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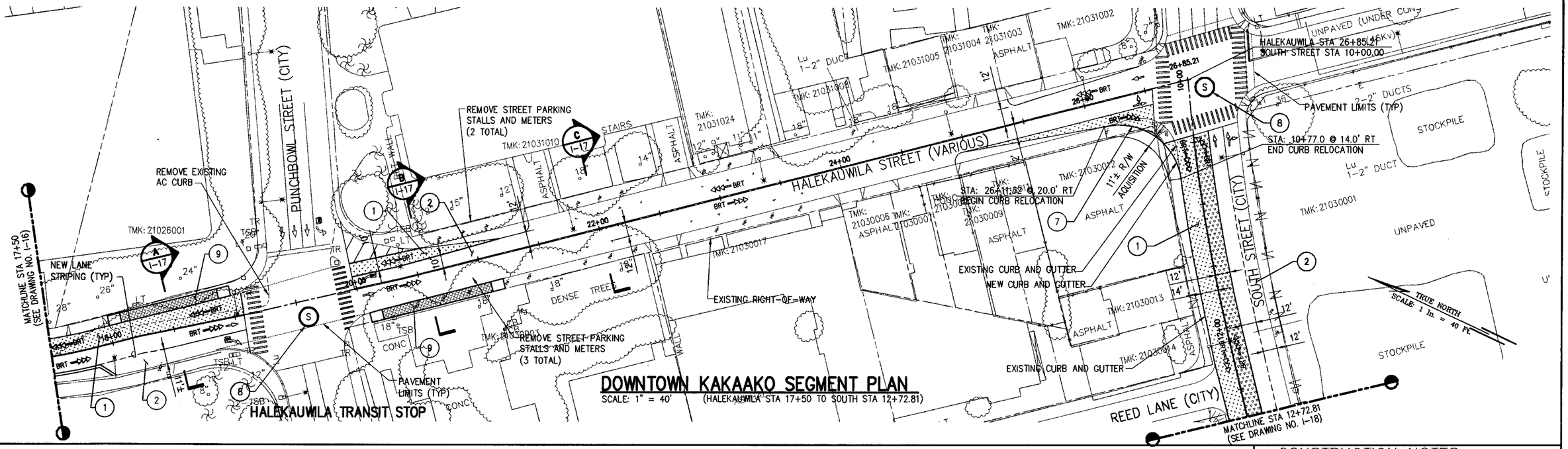
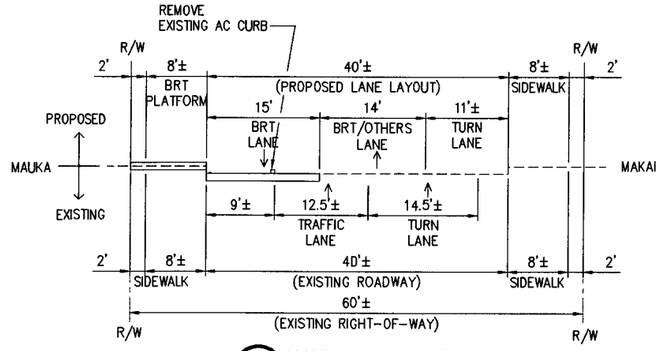
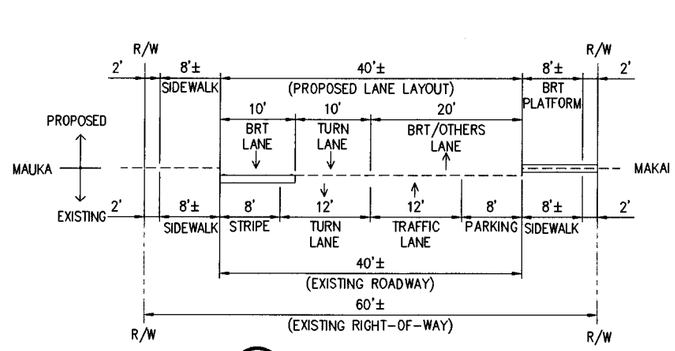


DOWNTOWN KAKAAKO SEGMENT PLAN

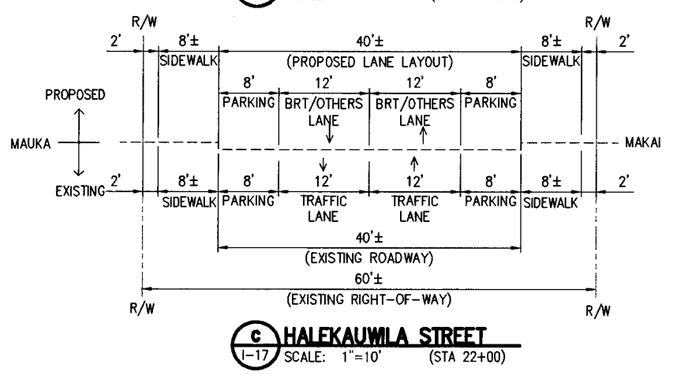
SCALE: 1" = 40' (HALEKAUWILA STA 17+50 TO SOUTH STA 12+72.81)



A I-17 **HALEKAUWILA STREET**
SCALE: 1"=10' (STA 18+50)



B I-17 **HALEKAUWILA STREET**
SCALE: 1"=10' (STA 20+05.60)



C I-17 **HALEKAUWILA STREET**
SCALE: 1"=10' (STA 22+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
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DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-17

DATE:10-23-02 SHT. NO. 81 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-17 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 10/23/02 14:18 WGH

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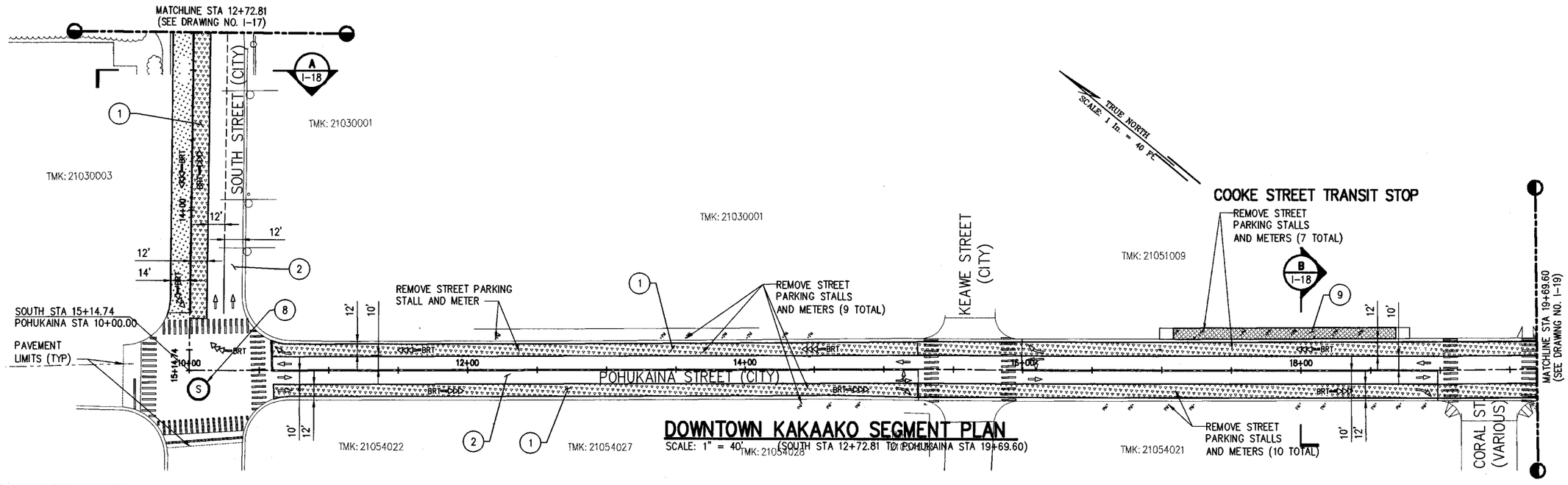
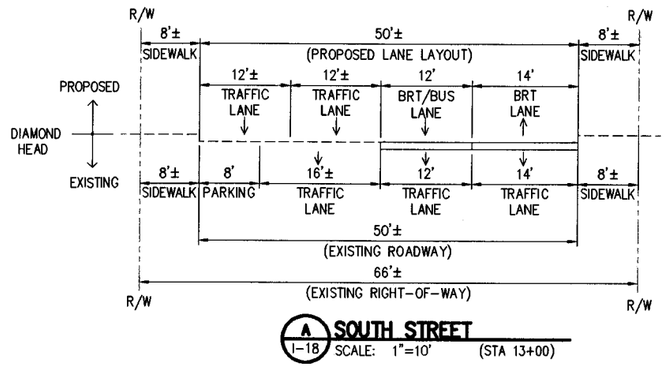
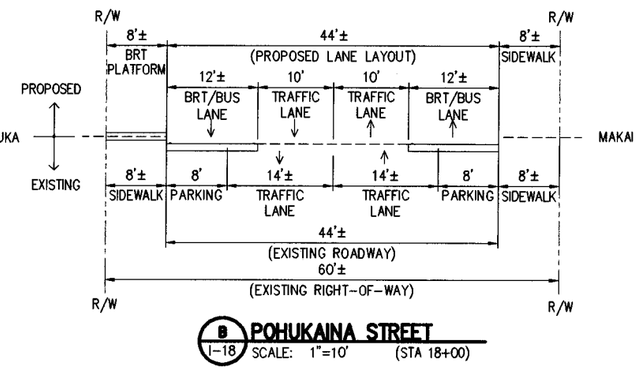


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40' (SOUTH STA 12+72.81 TO POHUKAINA STA 19+69.60)



A I-18 **SOUTH STREET** SCALE: 1"=10' (STA 13+00)



B I-18 **POHUKAINA STREET** SCALE: 1"=10' (STA 18+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION (S)
- TRACTION POWER SUPPLY STATION (TPSS)
- BRT ROUTE (BRT)
- ADA CURB RAMP
- BUS STOP (BS)
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-18

DATE: 5-24-02 SHT. NO. 82 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-18 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 05/28/02 11:18 dl

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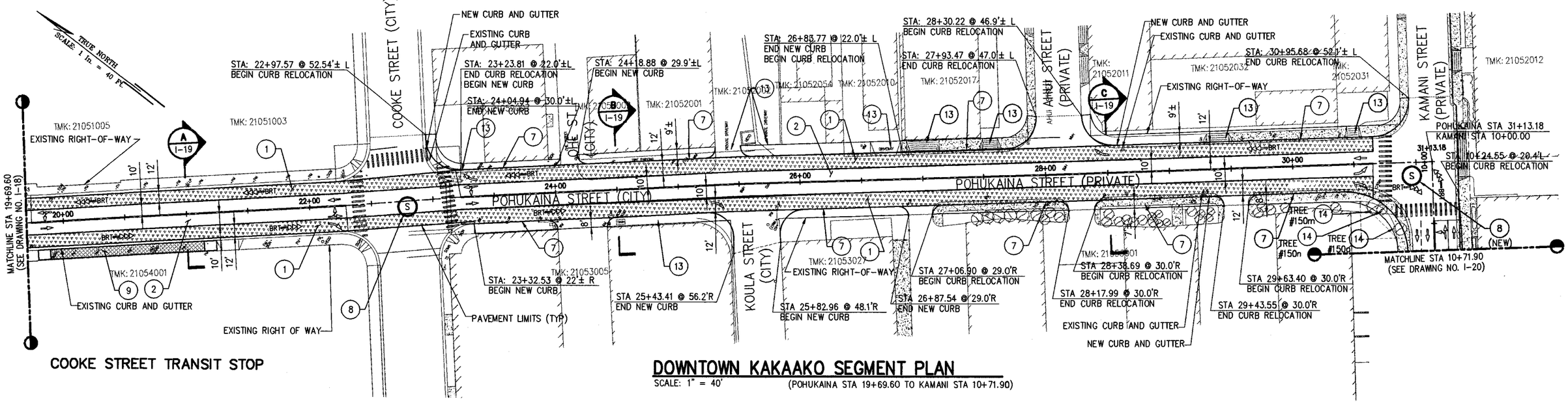
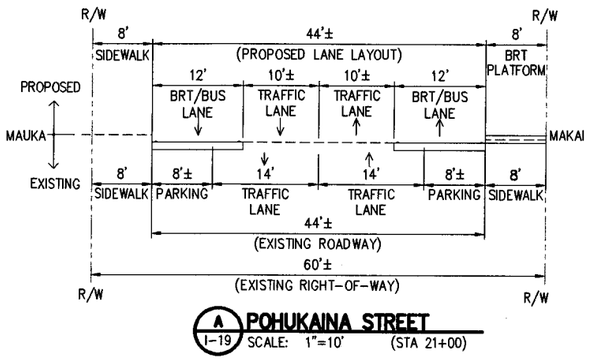
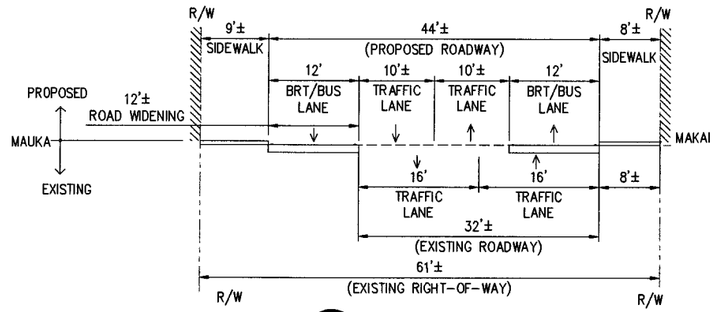


DOWNTOWN KAKAAKO SEGMENT PLAN

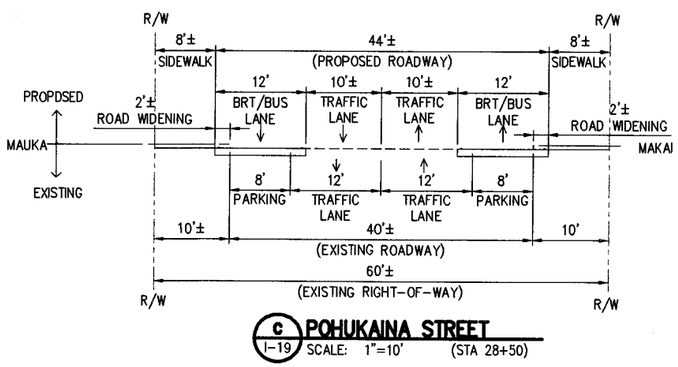
SCALE: 1" = 40' (POHUKAINA STA 19+69.60 TO KAMANI STA 10+71.90)



A I-19 POHUKAINA STREET
SCALE: 1"=10' (STA 21+00)



B I-19 POHUKAINA STREET
SCALE: 1"=10' (STA 24+50)



C I-19 POHUKAINA STREET
SCALE: 1"=10' (STA 28+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- S SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-19
DATE: 5-24-02 SHT. NO. 83 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-19 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/18/01 09:37 DaY

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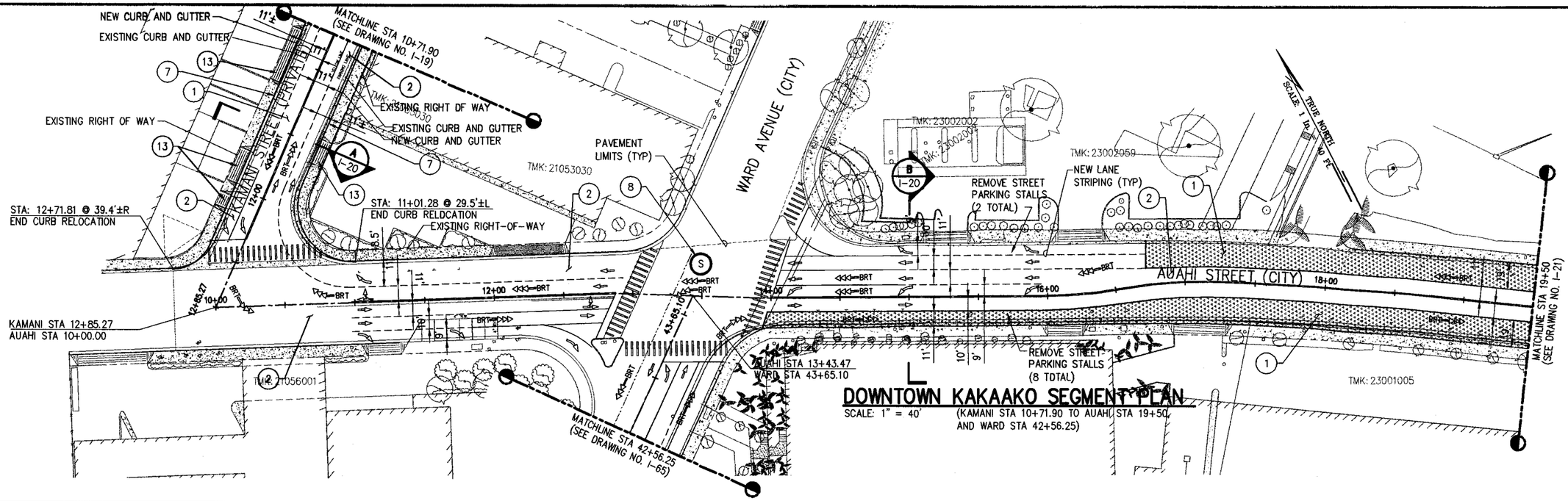
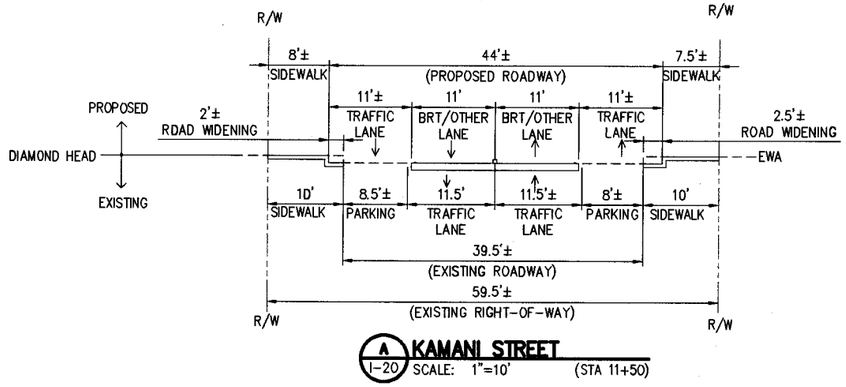
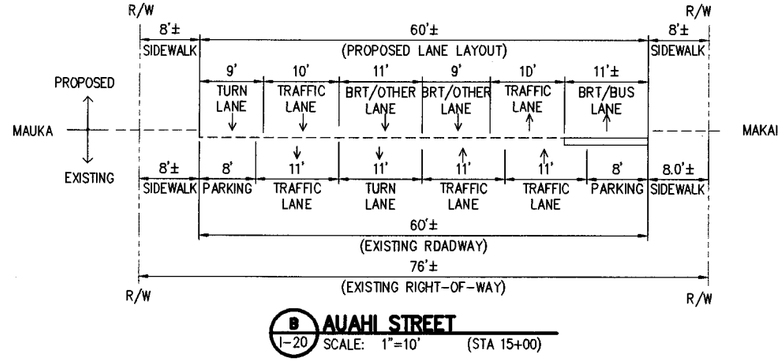


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40' (KAMANI STA 10+71.90 TO AUAHI STA 19+50 AND WARD STA 42+56.25)



A I-20 KAMANI STREET
SCALE: 1"=10' (STA 11+50)



B I-20 AUAHI STREET
SCALE: 1"=10' (STA 15+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NDTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION (S)
- TRACTION POWER SUPPLY STATION (TPSS)
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP (BS)
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-20

DATE: 5-24-02 SHT. NO. 84 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-20 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 05/28/02 09:13 JCH

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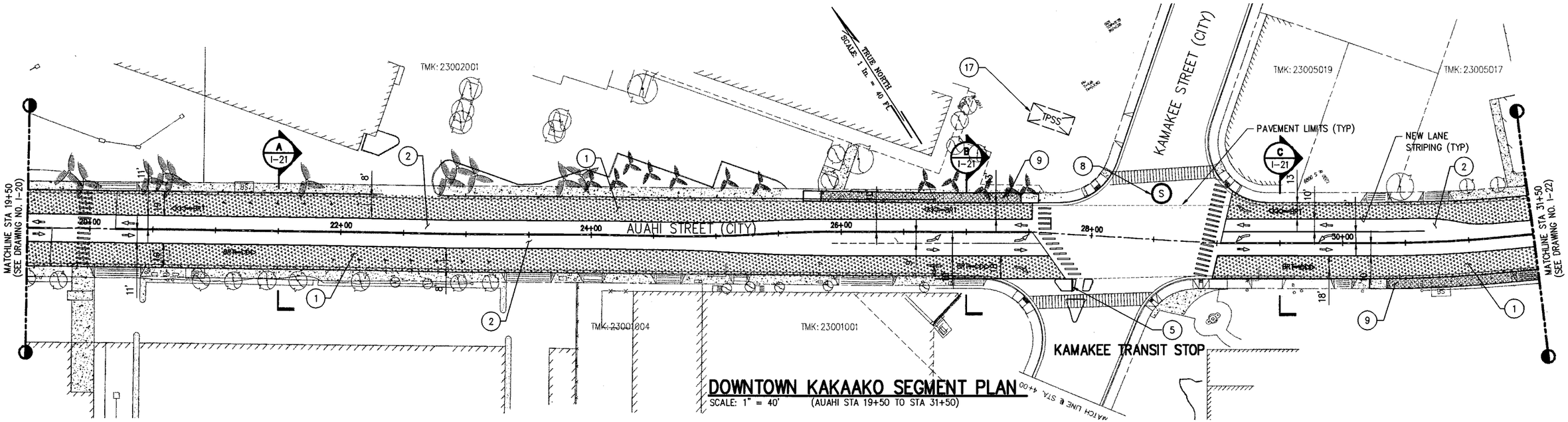
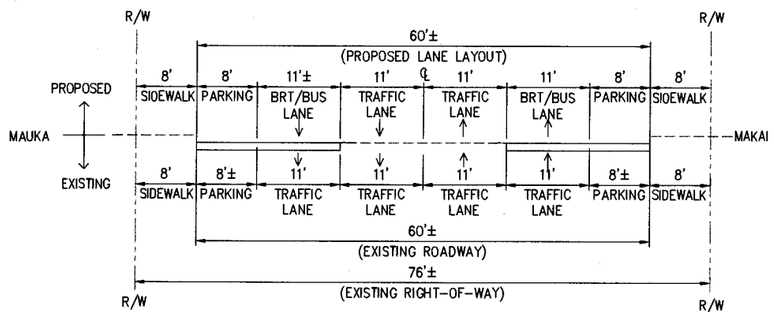
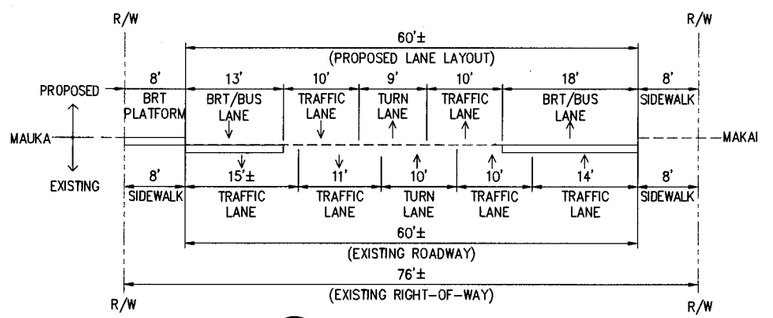


DOWNTOWN KAKAAKO SEGMENT PLAN

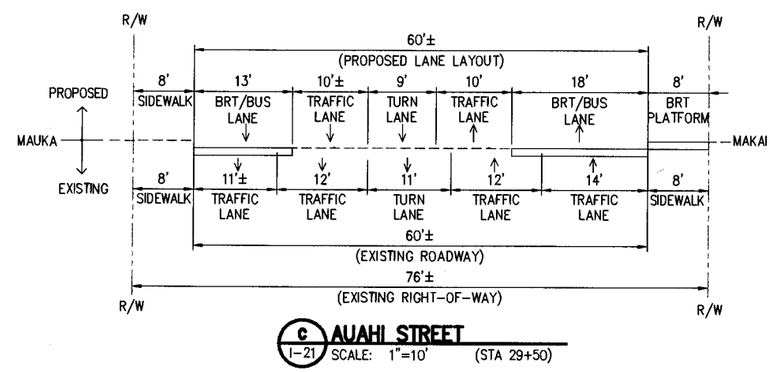
SCALE: 1" = 40' (AUAHI STA 19+50 TO STA 31+50)



A I-21 **AUAHI STREET** SCALE: 1"=10' (STA 21+50)



B I-21 **AUAHI STREET** SCALE: 1"=10' (STA 27+00)



C I-21 **AUAHI STREET** SCALE: 1"=10' (STA 29+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PRDVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PRDVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STDP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-21

DATE: 5-24-02 SHT. NO. 85 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\DON I-21 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 11/13/01 20:01 DaY

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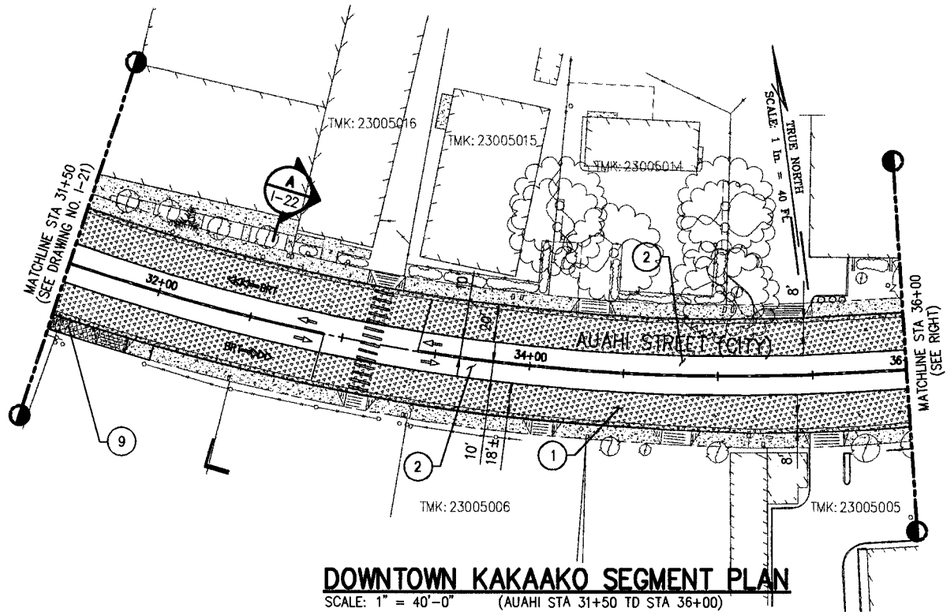
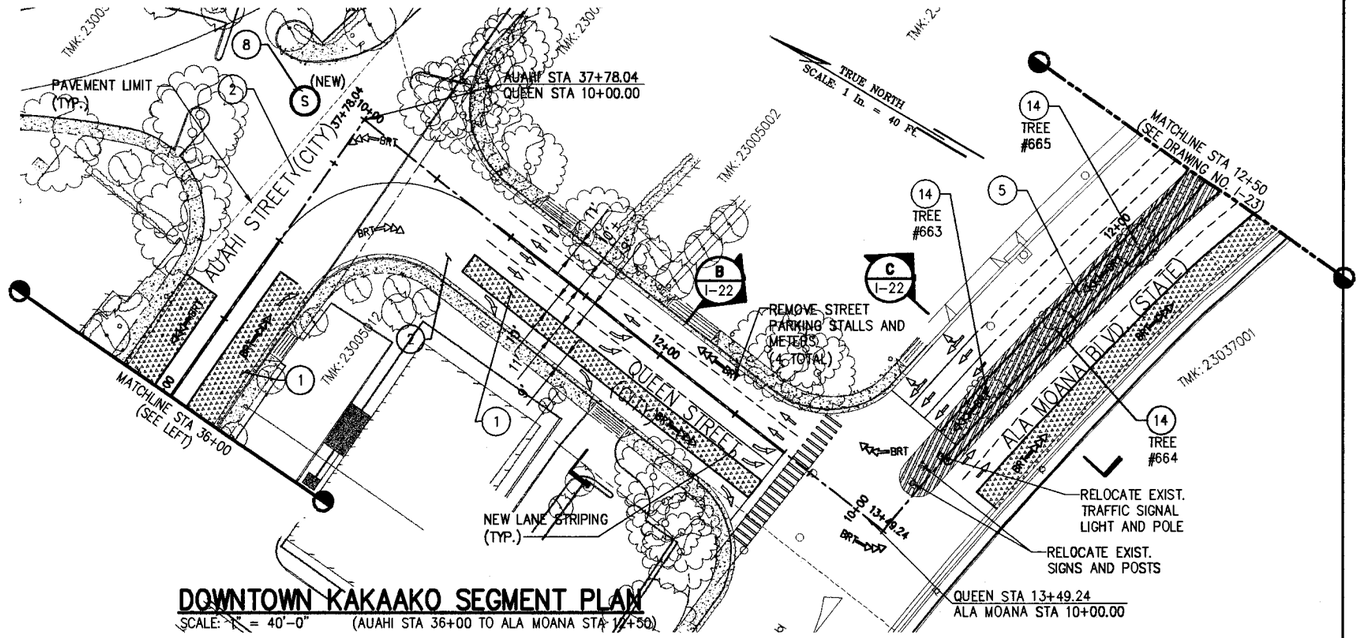


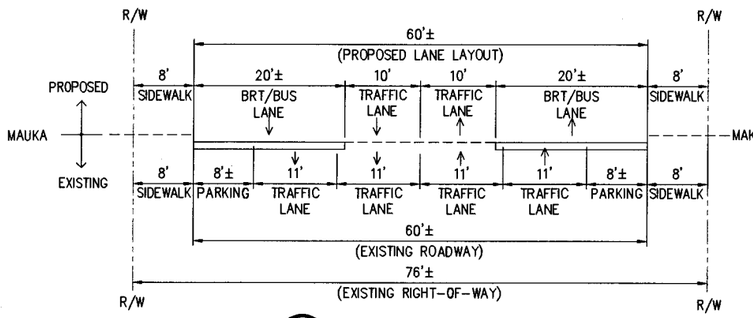
DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (AUAHI STA 31+50 TD STA 36+00)



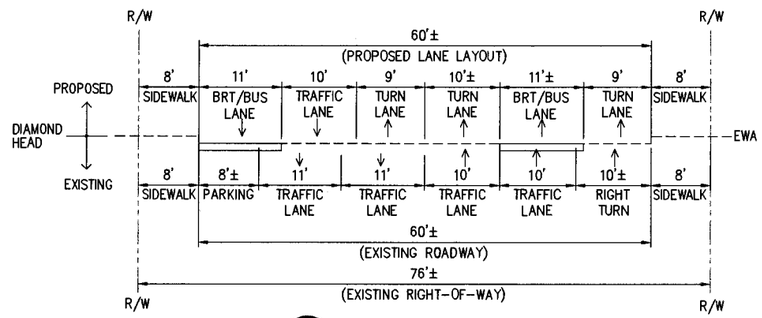
DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (AUAHI STA 36+00 TO ALA MOANA STA 12+50)



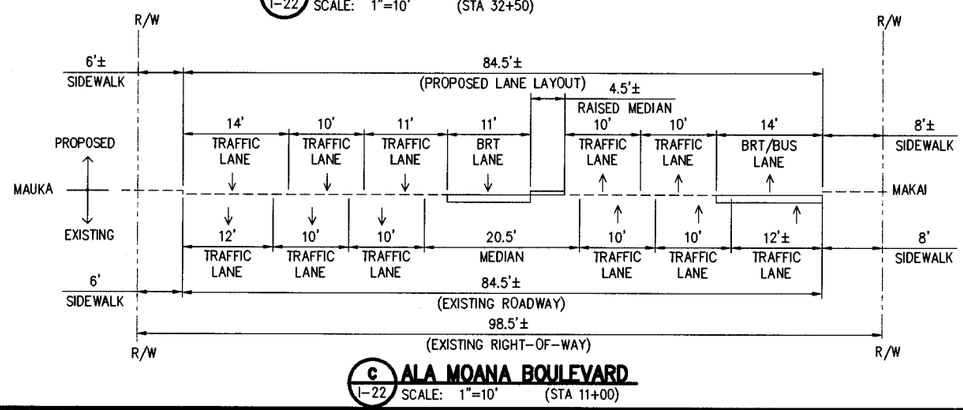
A AUAHI STREET

I-22 SCALE: 1"=10' (STA 32+50)



B QUEEN STREET

I-22 SCALE: 1"=10' (STA 12+00)



C ALA MOANA BOULEVARD

I-22 SCALE: 1"=10' (STA 11+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-22

DATE: 5-24-02 SHT. NO. 86 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-22 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 05/28/02 09:18 JCH

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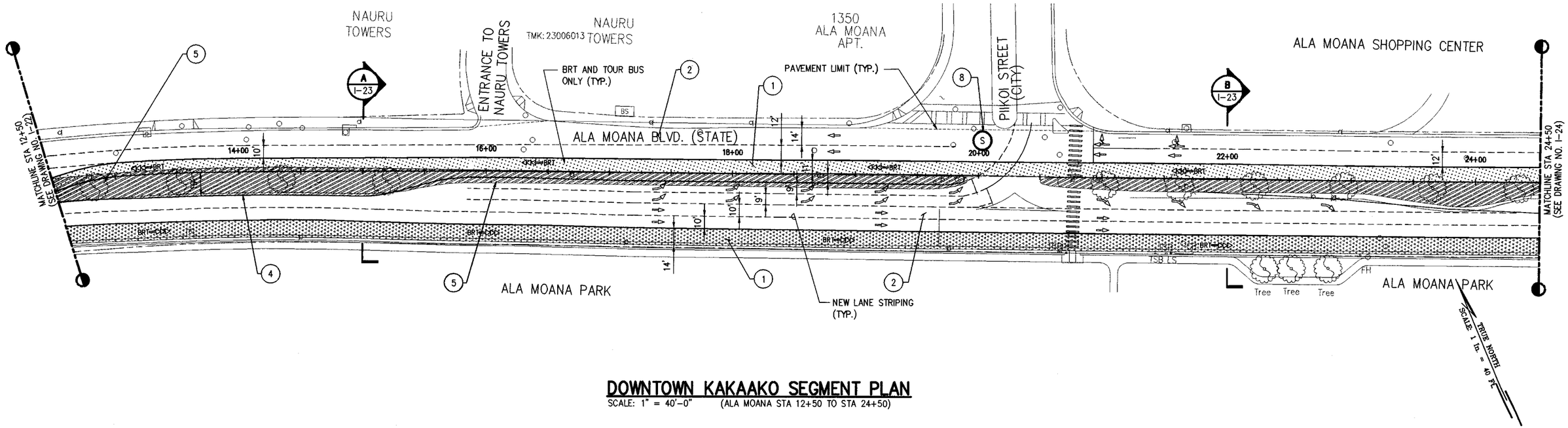
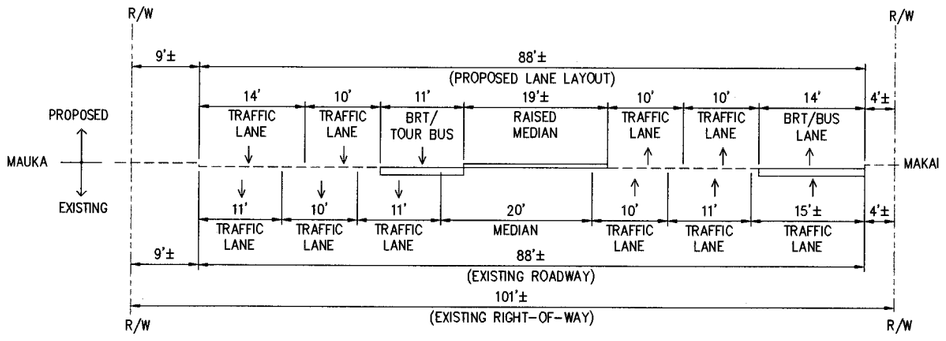


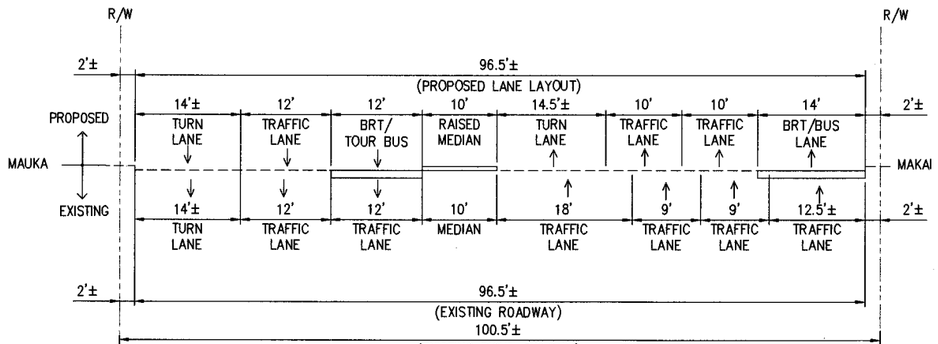
DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (ALA MOANA STA 12+50 TO STA 24+50)



A I-23 ALA MOANA BOULEVARD

SCALE: 1"=10' (STA 15+00)



B I-23 ALA MOANA BOULEVARD

SCALE: 1"=10' (STA 22+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-23

DATE:10-23-02 SHT. NO. 87 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-23 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 07/08/02 09:46 wgh

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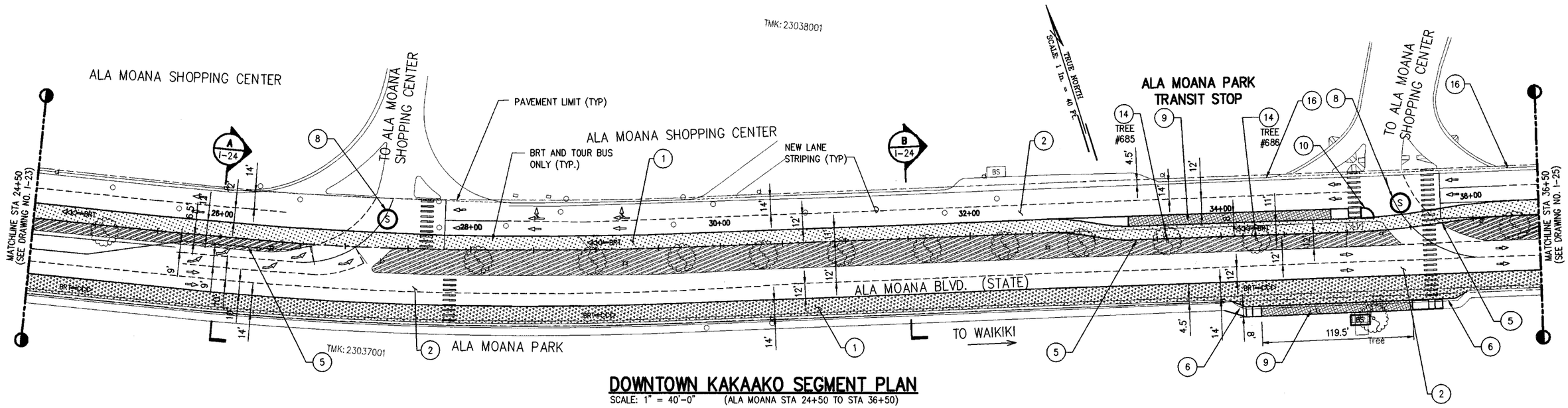
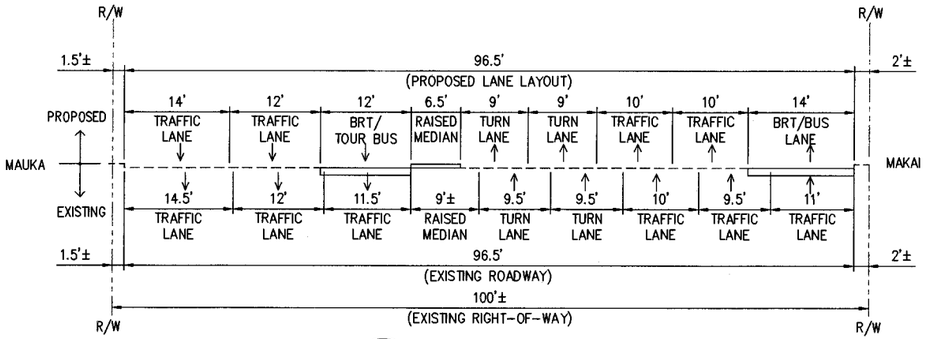
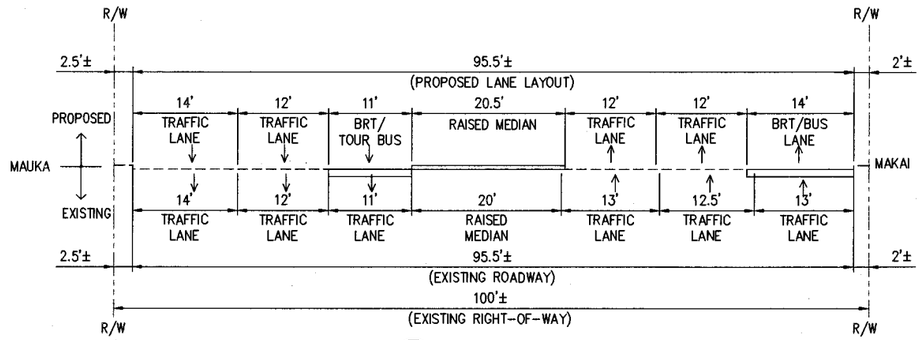


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (ALA MOANA STA 24+50 TO STA 36+50)



A I-24 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 26+00)



B I-24 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 31+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-24

DATE:10-23-02 SHT. NO. 88 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-DOWNTOWN KAKAAKO SEGMENT\I-24 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 07/08/02 09:47 wgh

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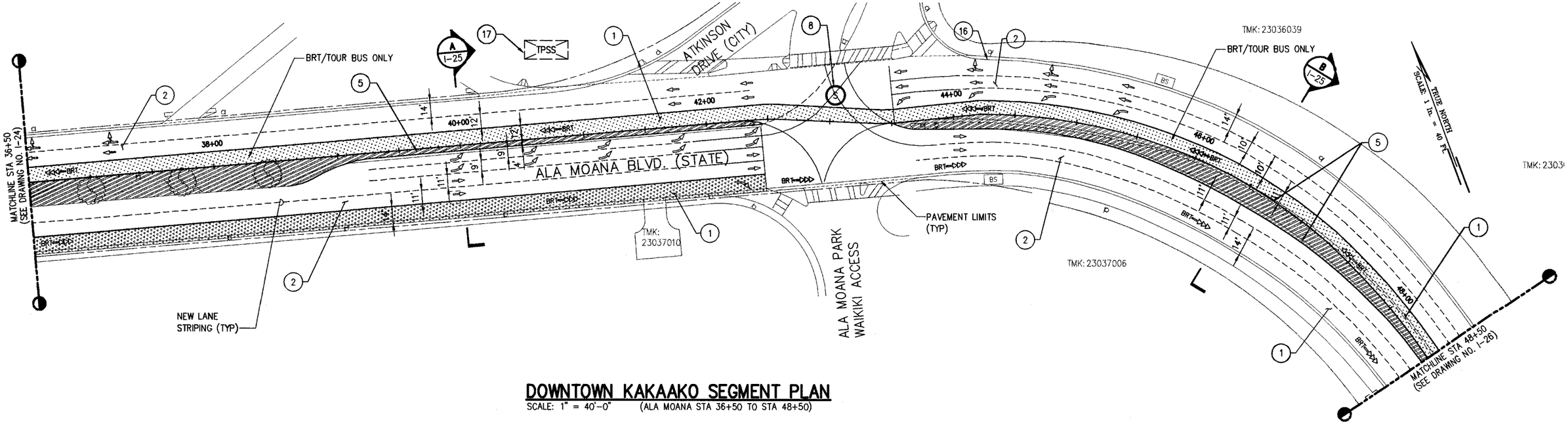
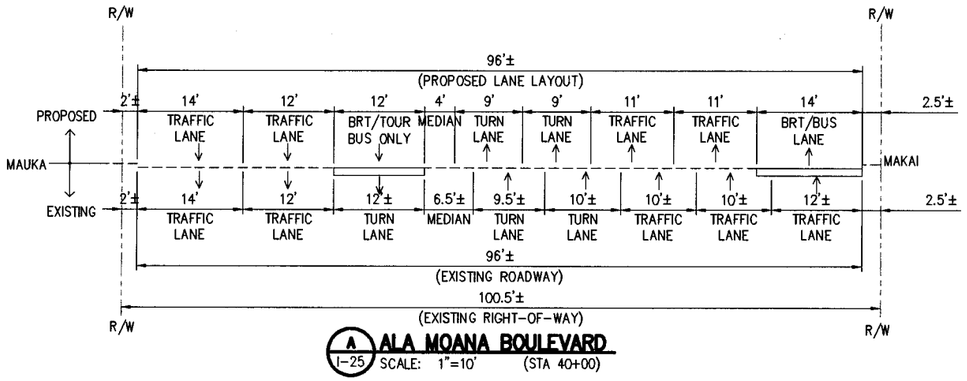
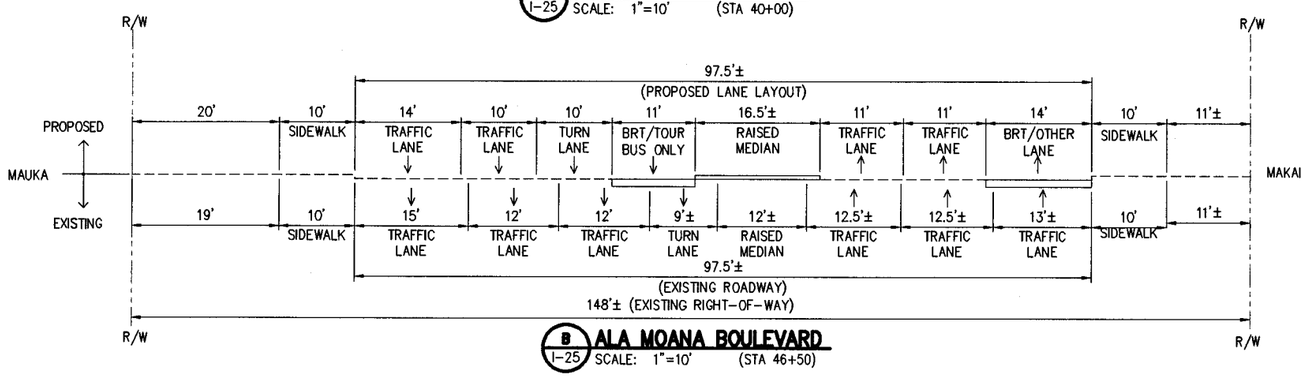


DOWNTOWN KAKAAKO SEGMENT PLAN

SCALE: 1" = 40'-0" (ALA MOANA STA 36+50 TO STA 48+50)



A I-25 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 40+00)



B I-25 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 46+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
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12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
DOWNTOWN KAKAAKO SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-25

DATE:10-23-02 SHT. NO. 89 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\0-DOWNTOWN KAKAAKO SEGMENT\I-25 DOWNTOWN KAKAAKO SEGMENT PLAN AND SECTIONS.DWG 07/08/02 09:49 wgh

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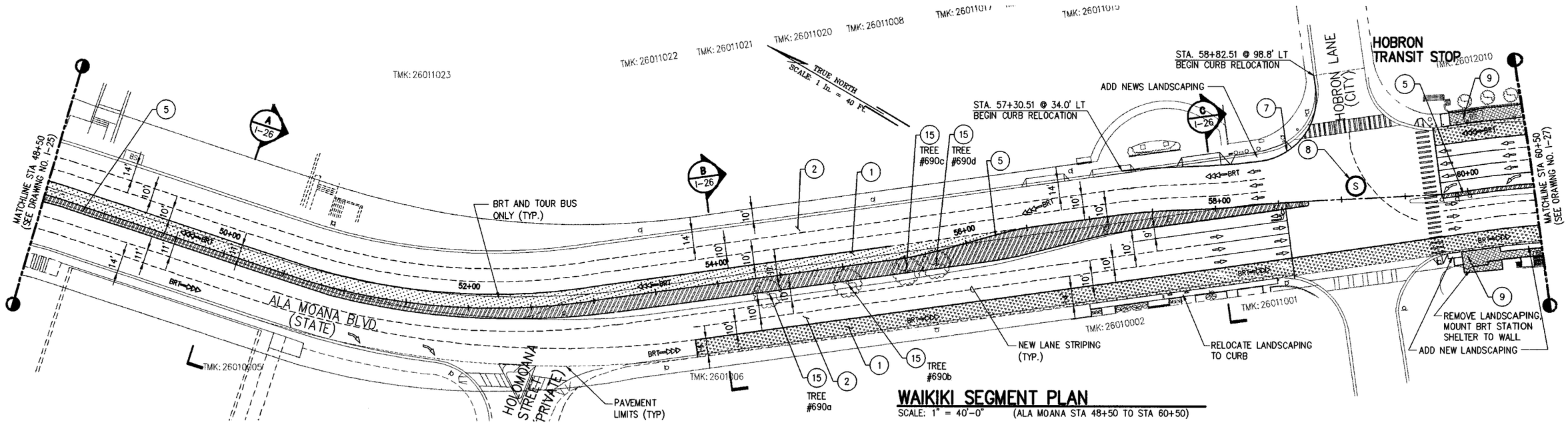
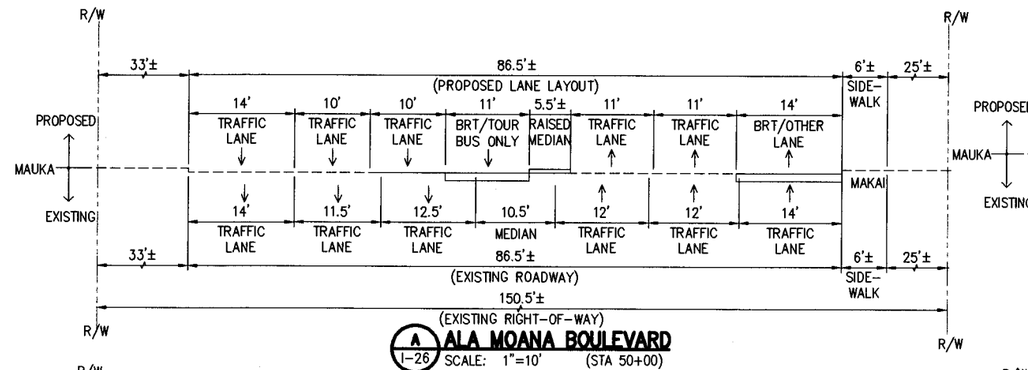
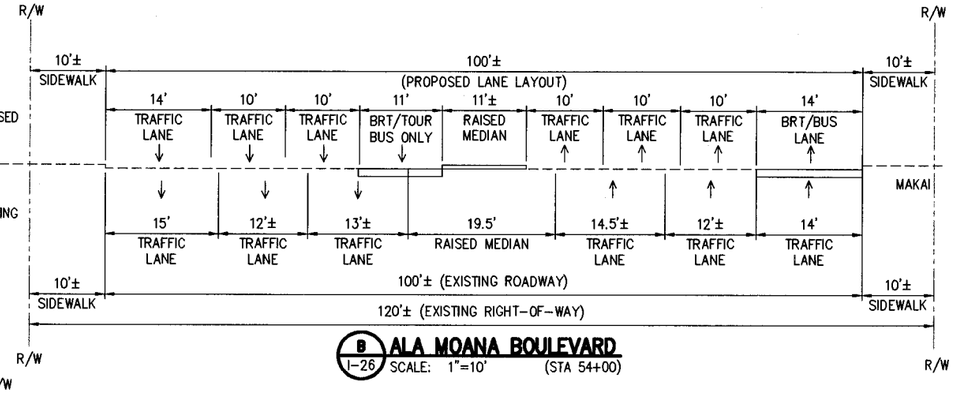
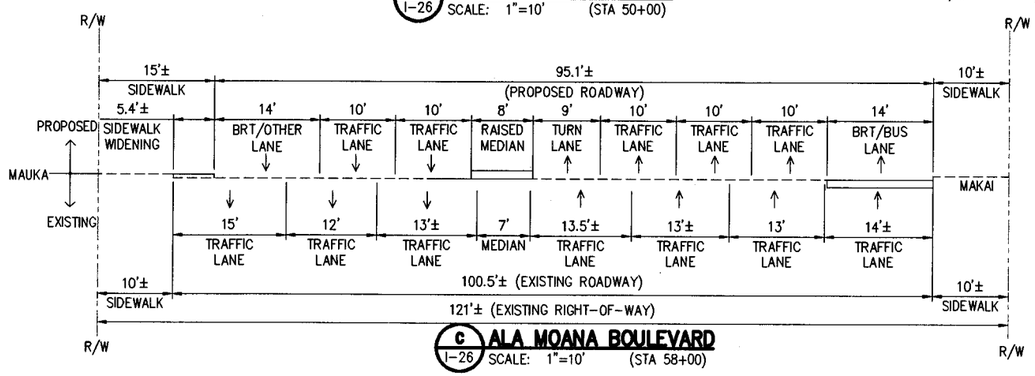


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (ALA MOANA STA 48+50 TO STA 60+50)







CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
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16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
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18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
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- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-26

DATE:10-23-02 SHT. NO. 90 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-26 WAIKIK SEGMENT PLAN AND SECTIONS.DWG 07/06/02 19:26 wgh

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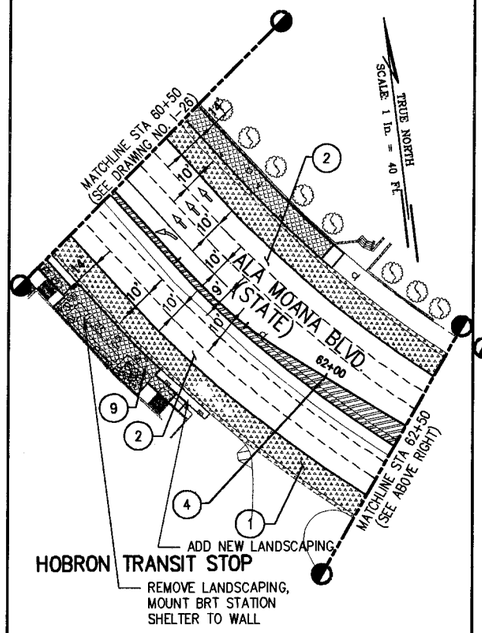

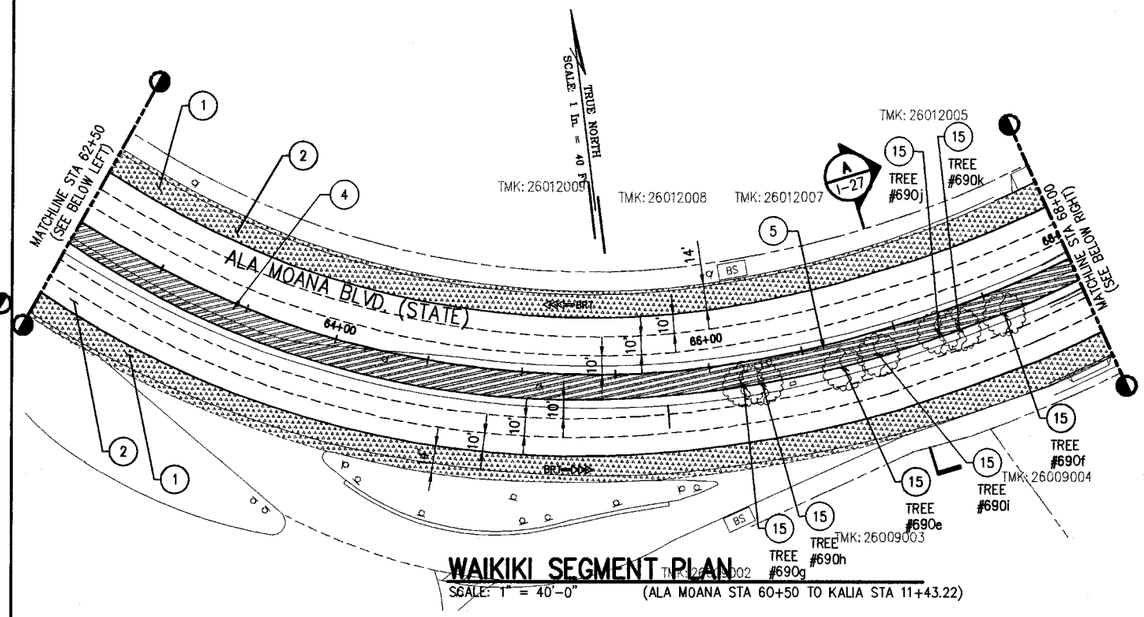

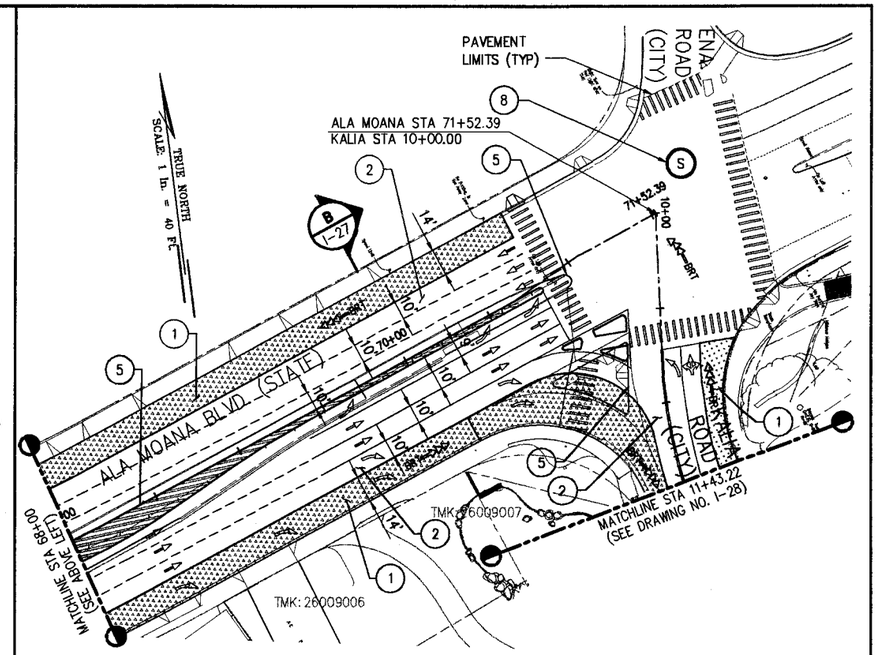

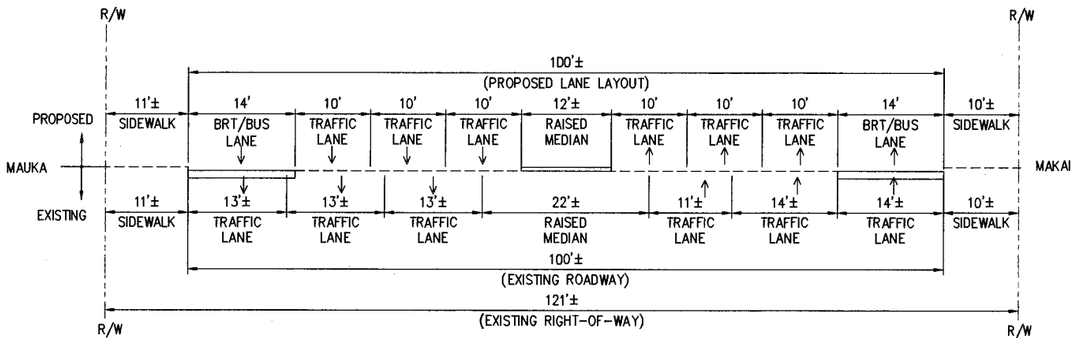

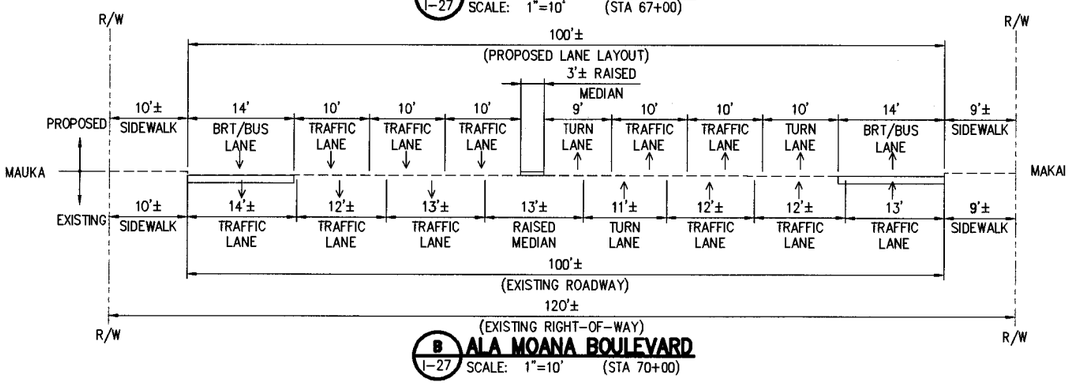

CONSTRUCTION NOTES

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2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PRDVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
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9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHDWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTENANCES
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12. REMOVE EXISTING BUS STOP COMPLETE
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LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
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- TPSS TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
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1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-27

DATE:10-23-02 SHT. NO. 91 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-27 WAIKIK SEGMENT PLAN AND SECTIONS.DWG 10/23/02 14:25 WGH

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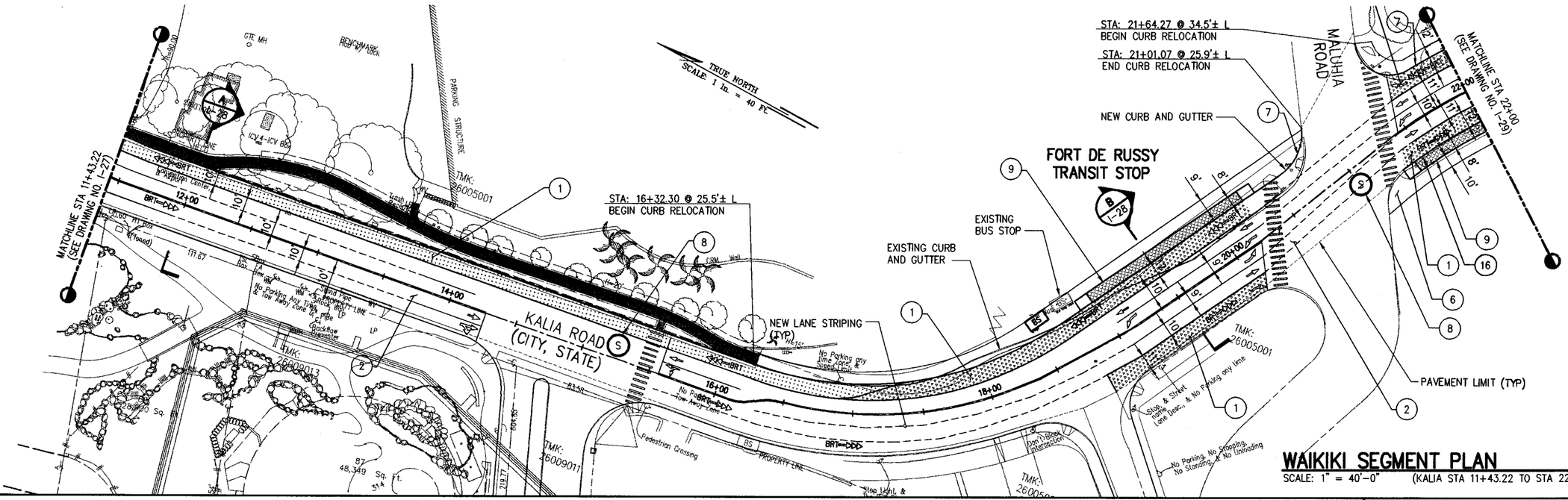
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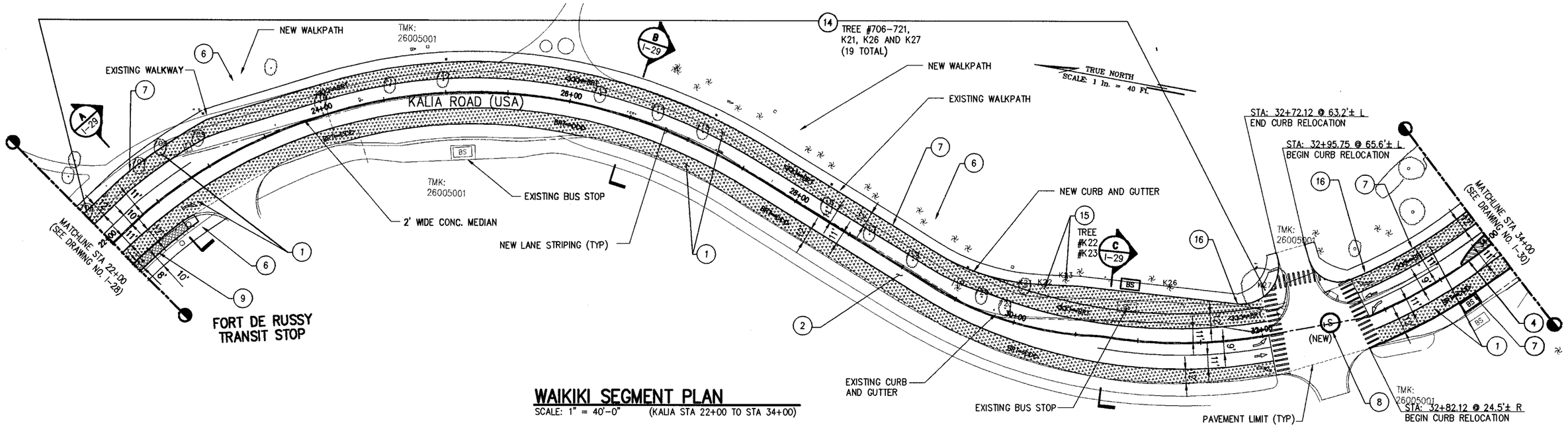
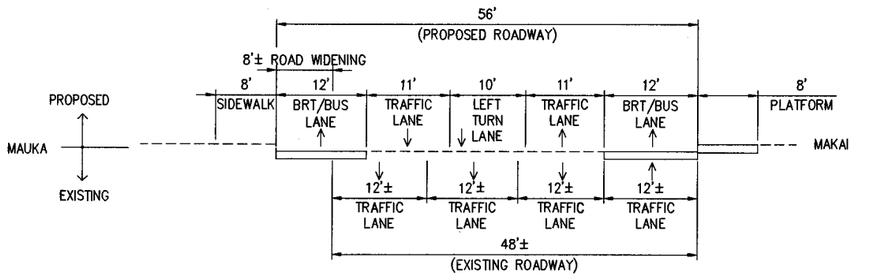
CTE MH
BENCHMARK
PARKING STRUCTURE
TMK: 26005001
TRUE NORTH
SCALE: 1 in. = 40 FT.
STA: 16+32.30 @ 25.5'± L
BEGIN CURB RELOCATION
STA: 21+64.27 @ 34.5'± L
BEGIN CURB RELOCATION
STA: 21+01.07 @ 25.9'± L
END CURB RELOCATION
MALUHIA ROAD
NEW CURB AND GUTTER
FORT DE RUSSY TRANSIT STOP
EXISTING BUS STOP
EXISTING CURB AND GUTTER
MATCHLINE STA 22+00 (SEE DRAWING NO. I-29)
KALIA ROAD (CITY, STATE)
NEW LANE STRIPING (TYP)
PAVEMENT LIMIT (TYP)
TMK: 26009013
TMK: 26009011
Pedestrian Crossing
PROPERTY LINE
Don't Block Intersection
No Parking, No Stopping, No Standing, & No Loitering
Stop & Shed Lane Desc., & No Parking any time
No Parking any time / Drive & Shared Trash
No Parking Any Time (Tow Away) Zone
Crosswalk
Trash Enclosure
Grease Interceptor
Backflow Preventer
Planter
Tree Grate
Trash Can
Bench
Bollard
Light Pole
Traffic Signal Box
Traffic Signal Pole
Fire Hydrant
Sign
Tree
Shrub
Grass
Concrete
Asphalt
Curb Ramp
Curb Cut
Low Wall
CRM Wall
Retaining Wall
Fence
Gate
Stairs
Ramp
Handrail
Guardrail
Utility Pole
Overhead Wire
Underground Utility
Storm Drain
Sewer
Water
Gas
Electrical
Telephone
Cable TV
Fiber Optic
Irrigation
Drainage
Catch Basin
Manhole
Valve
Meter
Transformer
Generator
Antenna
Satellite Dish
Flagpole
Monument
Survey Point
Benchmark
Property Line
Easement
Right-of-Way
Setback
Building
Roof
Overhang
Awning
Canopy
Skylight
Vent
Chimney
Solar Panel
Air Conditioning Unit
Elevator
Escalator
Stairwell
Entrance
Exit
Window
Door
Garage
Carport
Parking Space
Loading Zone
Handicap Parking
Motorcycle Parking
Bicycle Parking
Bus Stop
Taxi Stand
Fire Lane
No Parking Zone
Tow Away Zone
Speed Limit
Traffic Signal
Stop Sign
Yield Sign
One Way
Two Way
Lane Line
Center Line
Crosswalk
Pedestrian Crossing
Bicycle Lane
Shared Use Path
Trail
Sidewalk
Curb
Gutter
Median
Island
Roundabout
Intersection
Driveway
Alley
Street
Highway
Freeway
Ramp
Overpass
Underpass
Bridge
Tunnel
Railroad
Transit Station
Platform
Shelter
Bench
Trash Can

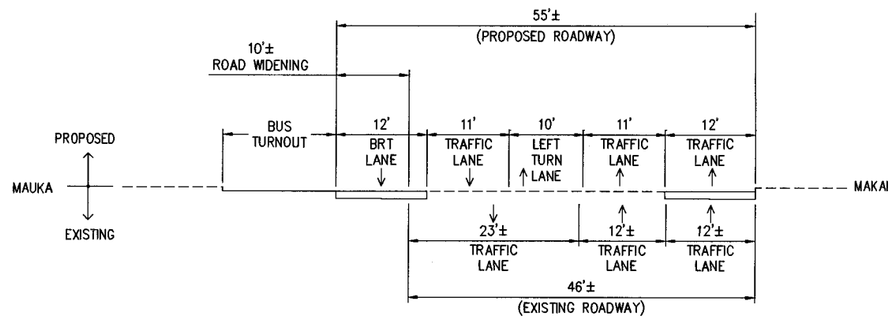


WAIKIKI SEGMENT PLAN

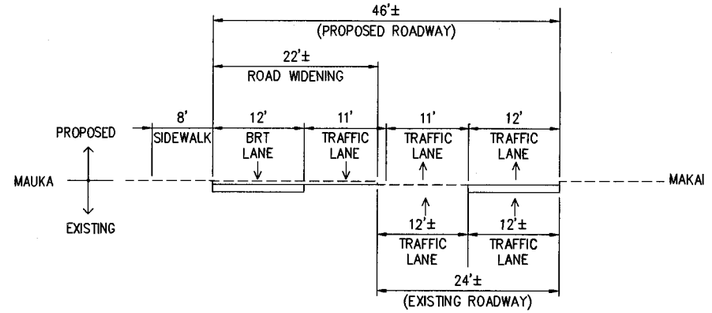
SCALE: 1" = 40'-0" (KALIA STA 22+00 TO STA 34+00)



A KALIA ROAD
I-29 SCALE: 1"=10' (STA 22+50)



C KALIA ROAD
I-29 SCALE: 1"=10' (STA 30+75)



B KALIA ROAD
I-29 SCALE: 1"=10' (STA 26+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- S SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-29

DATE:10-23-02 SHT. NO. 93 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-29 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/08/02 19:27 wgh

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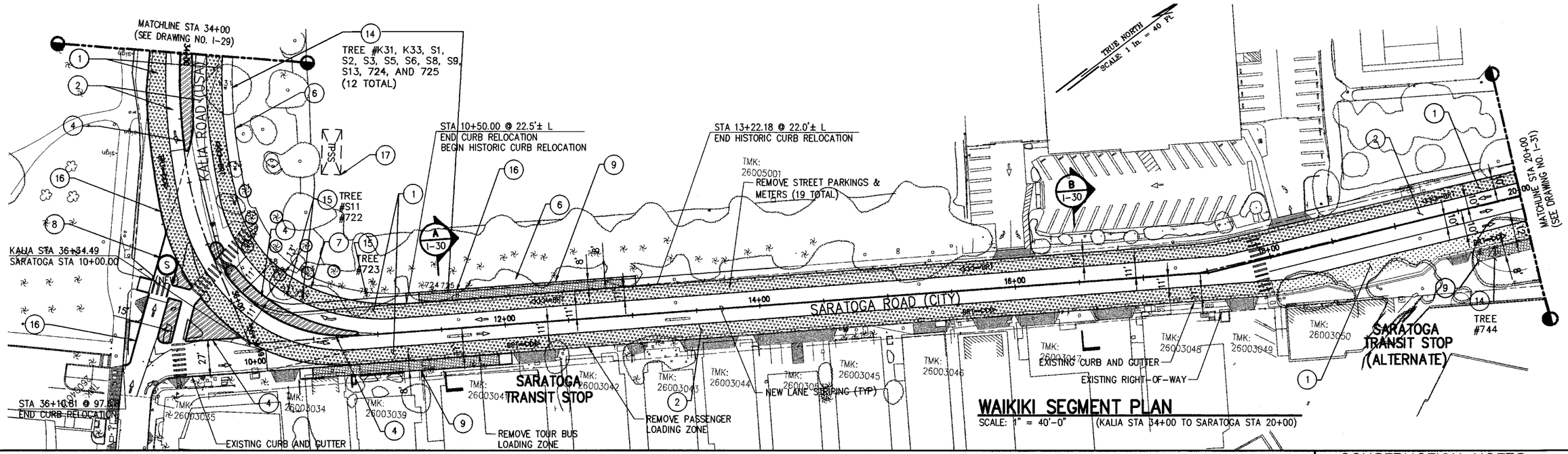
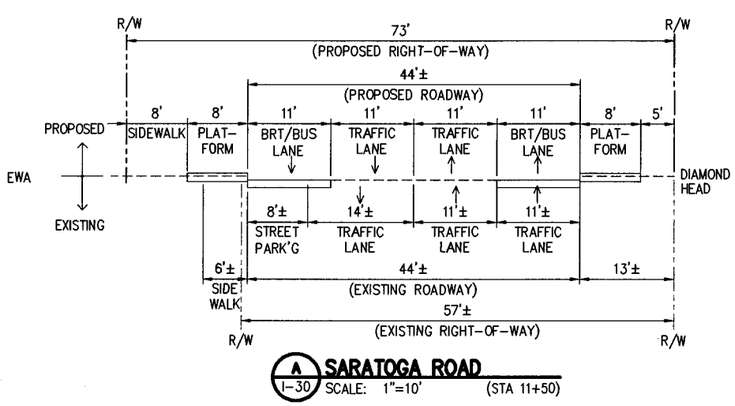
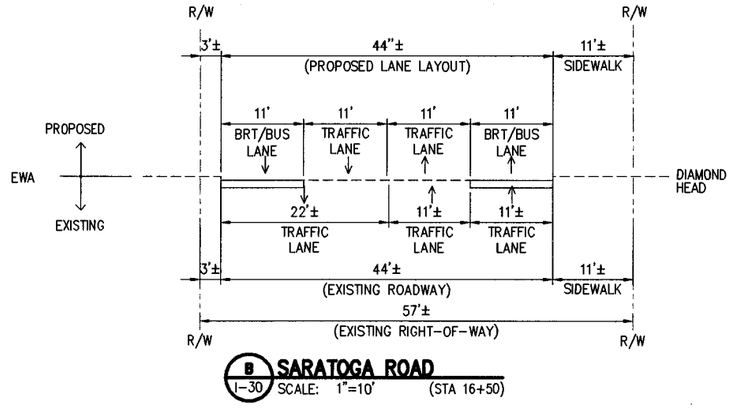


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KALIA STA 34+00 TO SARATOGA STA 20+00)



A I-30 **SARATOGA ROAD**
SCALE: 1"=10' (STA 11+50)



B I-30 **SARATOGA ROAD**
SCALE: 1"=10' (STA 16+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-30

DATE:10-23-02 SHT. NO. 94 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-30 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/06/02 19:28 wgh

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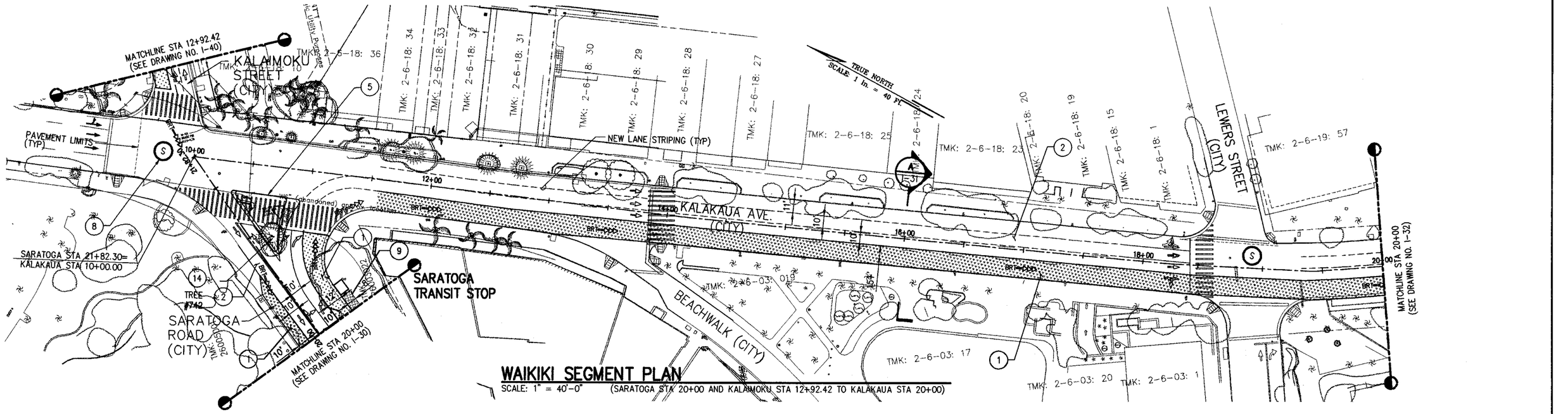
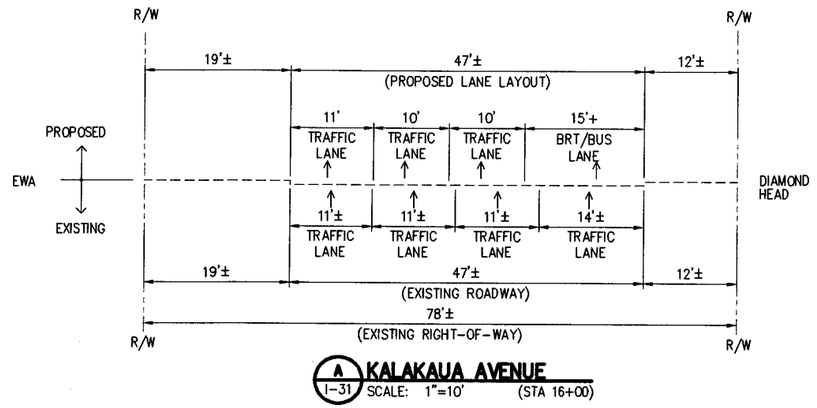


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (SARATOGA STA 20+00 AND KALAIMOKU STA 12+92.42 TO KALAKAUA STA 20+00)



A / I-31 KALAKAUA AVENUE
SCALE: 1"=10' (STA 16+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-31

DATE:10-23-02 SHT. NO. 95 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-31 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/06/02 19:30 wgh

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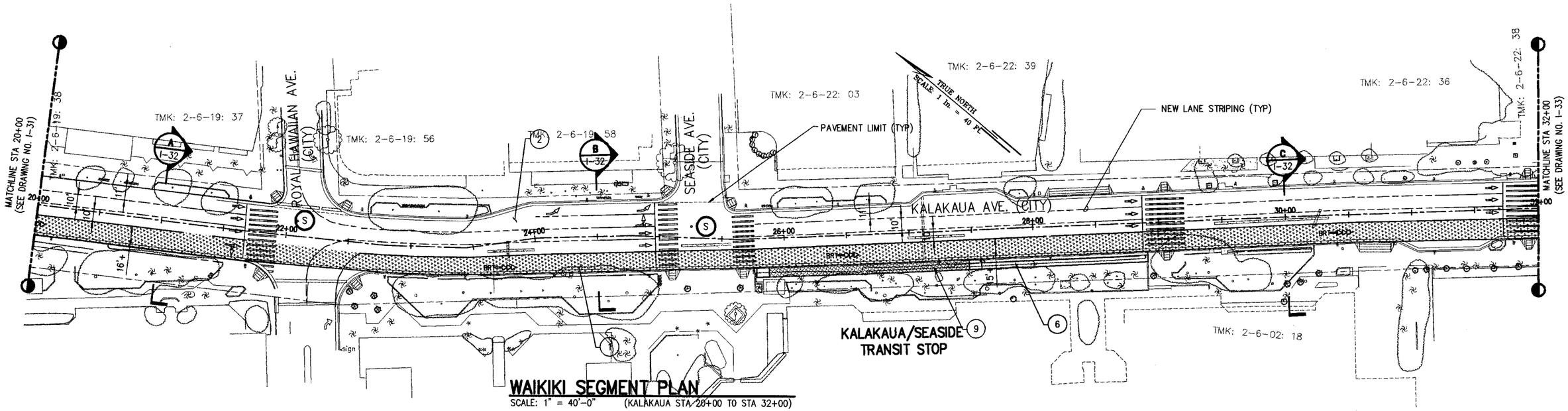
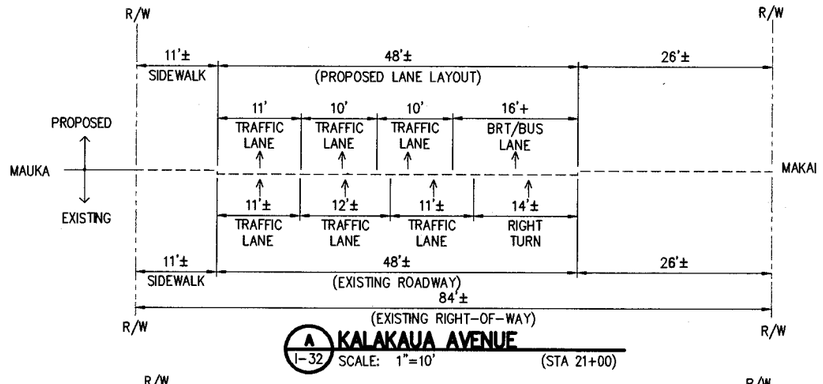
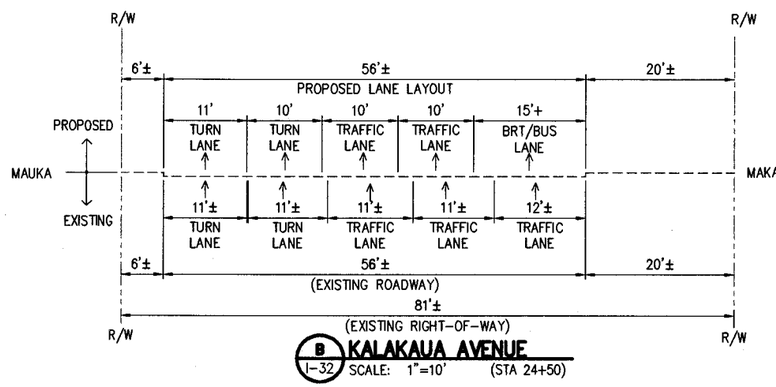


WAIKIKI SEGMENT PLAN

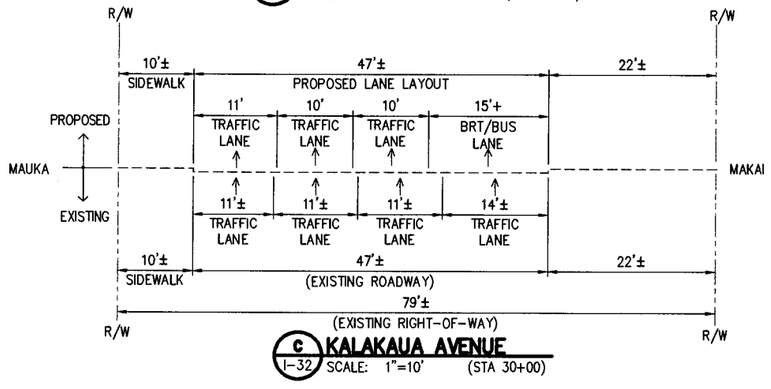
SCALE: 1" = 40'-0" (KALAKAUA STA 20+00 TO STA 32+00)



A I-32 **KALAKAUA AVENUE**
SCALE: 1"=10' (STA 21+00)



B I-32 **KALAKAUA AVENUE**
SCALE: 1"=10' (STA 24+50)



C I-32 **KALAKAUA AVENUE**
SCALE: 1"=10' (STA 30+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, DR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHDWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PRDVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHDWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-32

DATE: 5-24-02 SHT. NO. 96 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-32 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 05/28/02 10:41 WGH

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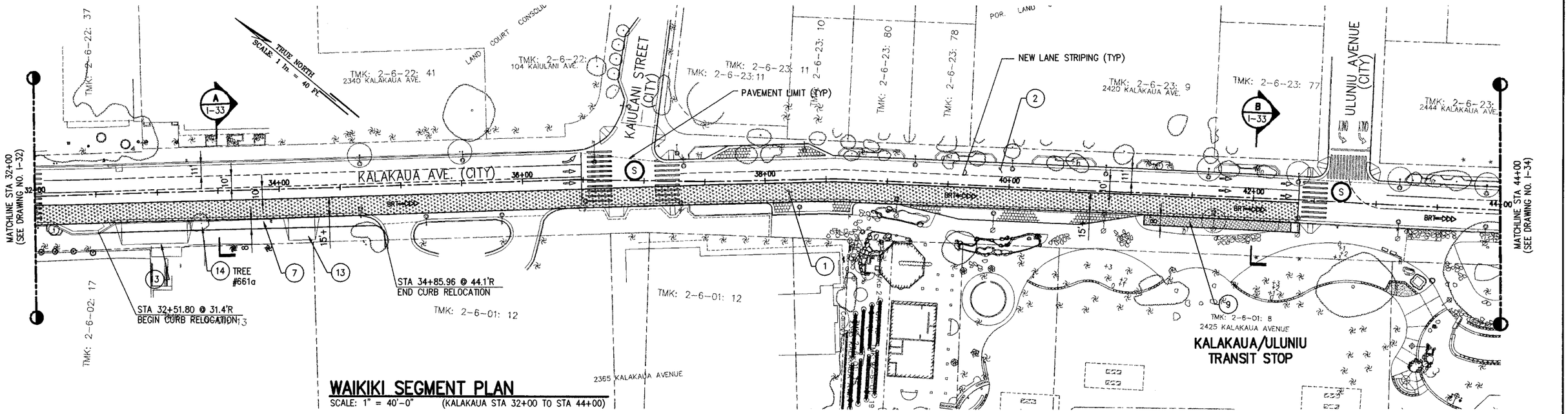
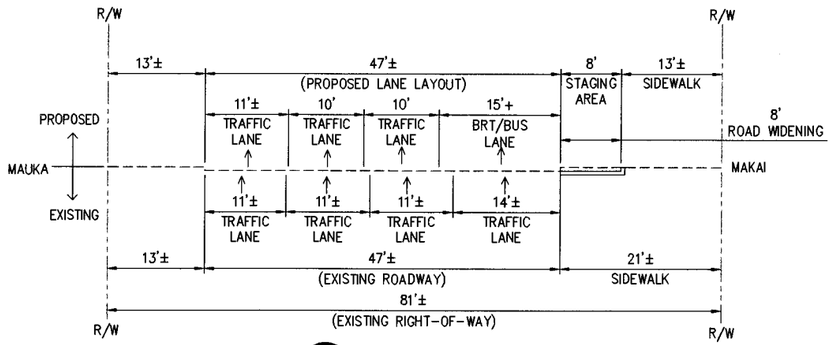
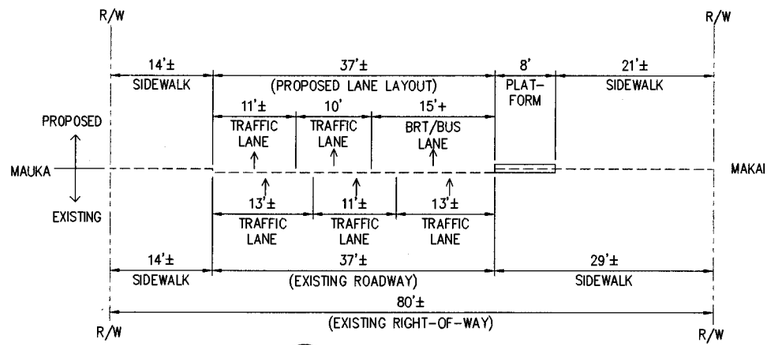


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KALAKAUA STA 32+00 TO STA 44+00)



A I-33 KALAKAUA AVENUE
SCALE: 1"=10' (STA 33+50)



B I-33 KALAKAUA AVENUE
SCALE: 1"=10' (STA 42+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-33

DATE: 5-24-02 SHT. NO. 97 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-33 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 11/25/01 19:16 WGH

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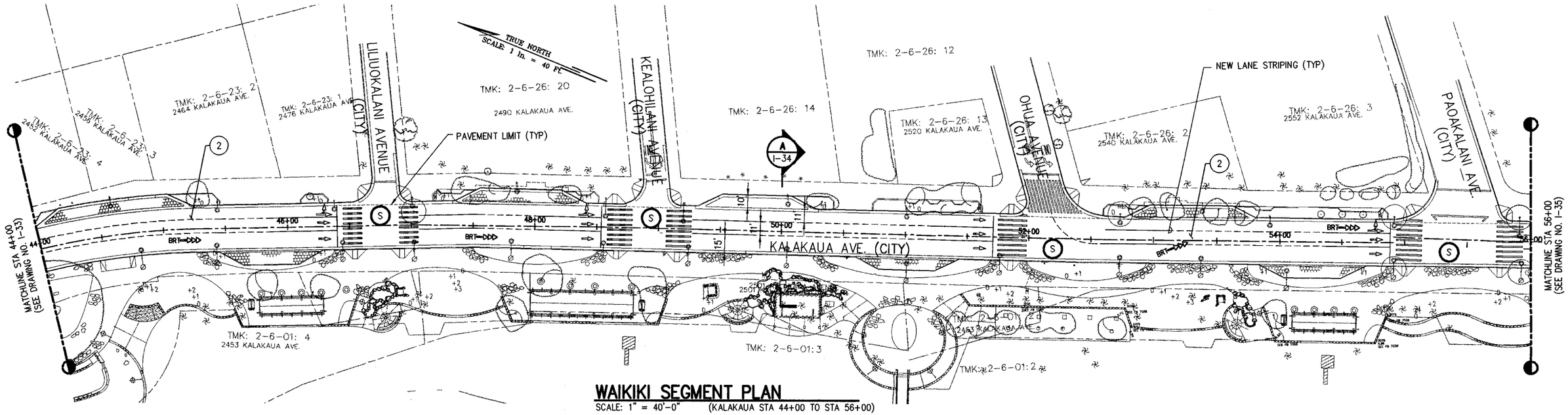
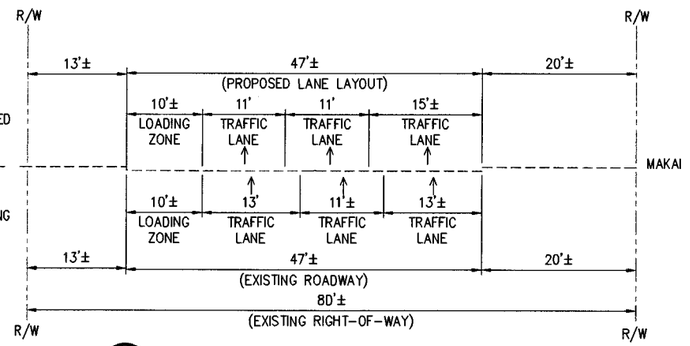


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KALAKAUA STA 44+00 TO STA 56+00)



A / I-34 KALAKAUA AVENUE

SCALE: 1"=10' (STA 50+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-34

DATE: 5-24-02 | SHT. NO. 98 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-34 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 11/25/01 15:32 JXT

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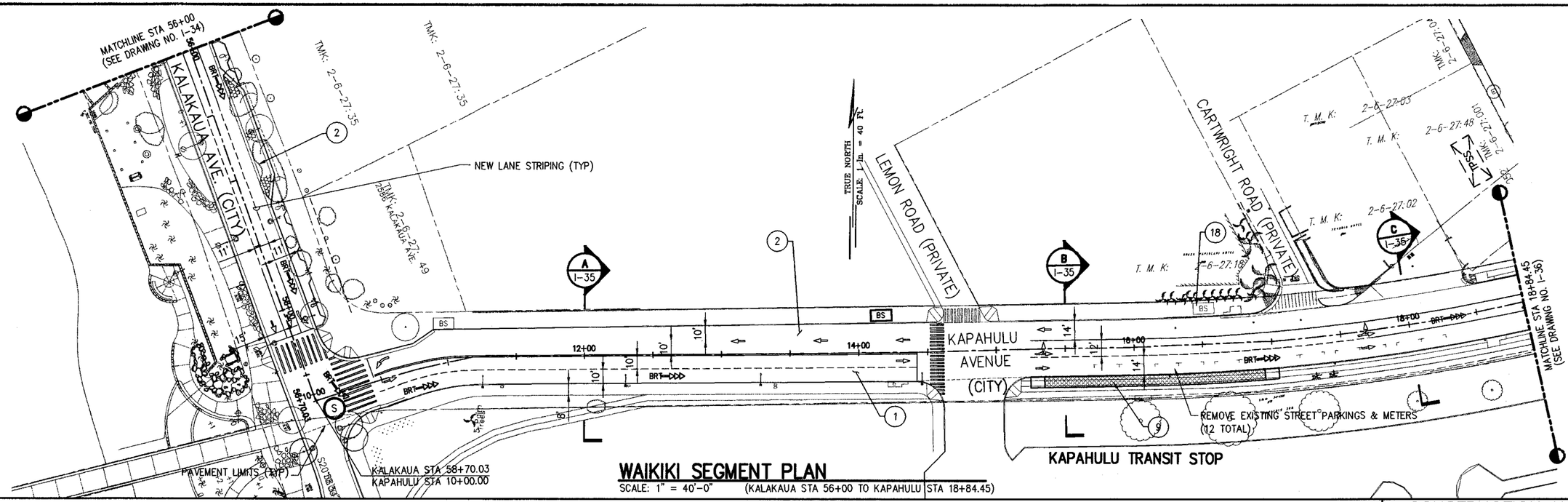
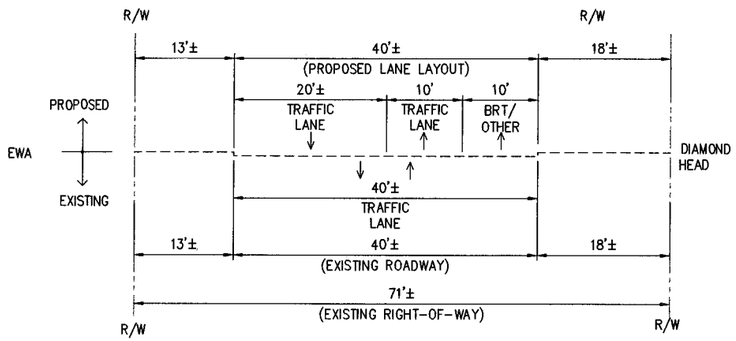
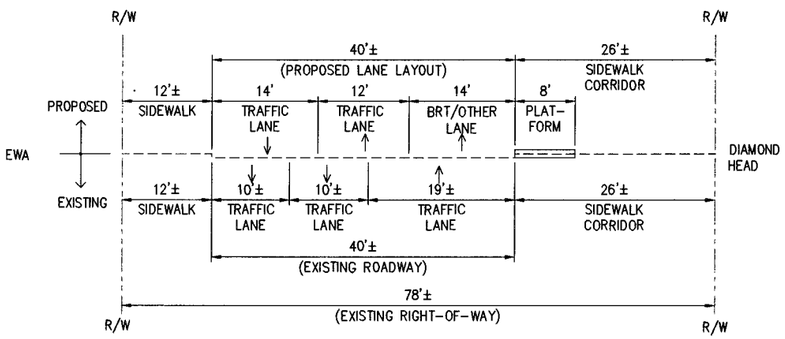


WAIKIKI SEGMENT PLAN

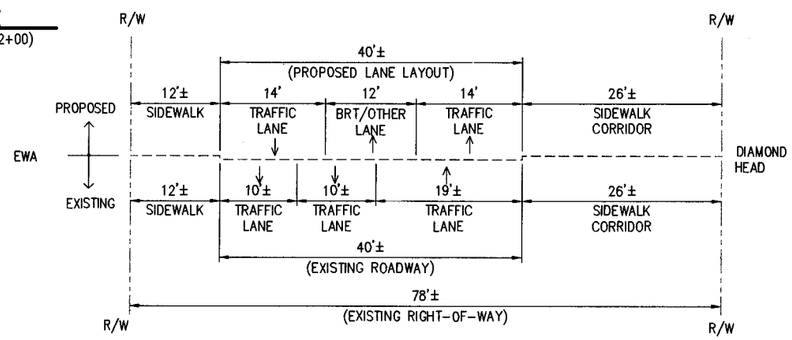
SCALE: 1" = 40'-0" (KALAKAUA STA 56+00 TO KAPAHULU STA 18+84.45)



A KAPAHULU AVENUE
I-35 SCALE: 1"=10' (STA 12+00)



B KAPAHULU AVENUE
I-35 SCALE: 1"=10' (STA 15+50)



C KAPAHULU AVENUE
I-35 SCALE: 1"=10' (STA 18+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-35
DATE:10-23-02 SHT. NO. 99 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-35 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/08/02 09:33 wgh

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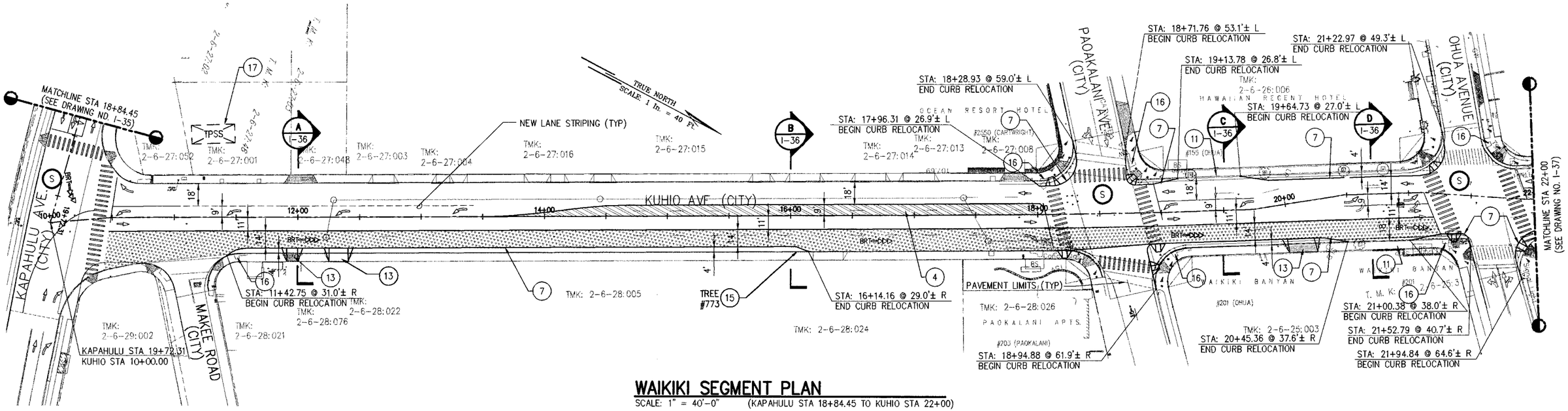
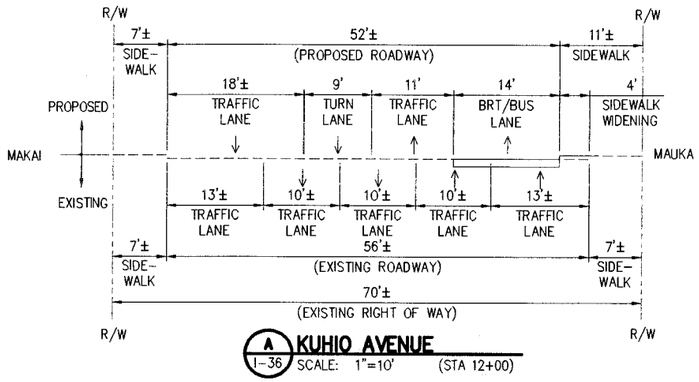
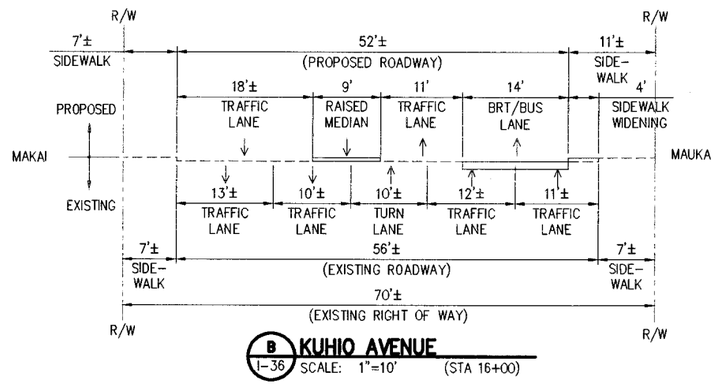


WAIKIKI SEGMENT PLAN

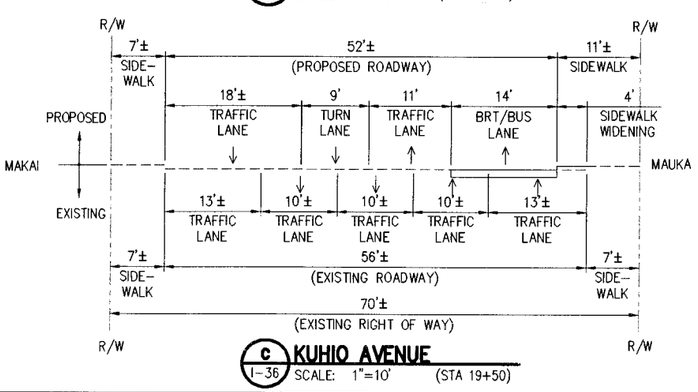
SCALE: 1" = 40'-0" (KAPAHULU STA 18+84.45 TO KUHIO STA 22+00)



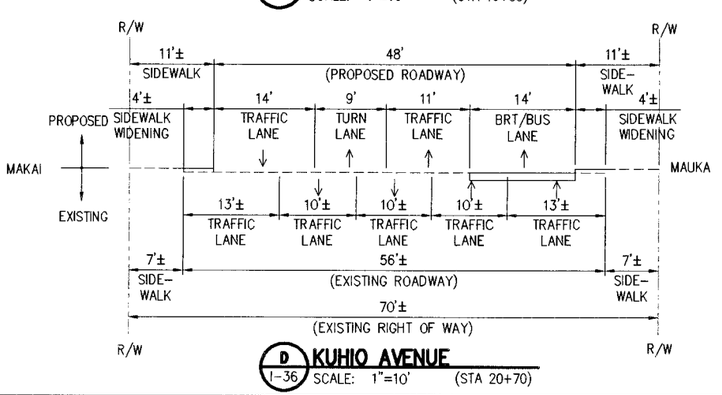
A I-36 **KUHIO AVENUE**
SCALE: 1"=10' (STA 12+00)



B I-36 **KUHIO AVENUE**
SCALE: 1"=10' (STA 16+00)



C I-36 **KUHIO AVENUE**
SCALE: 1"=10' (STA 19+50)



D I-36 **KUHIO AVENUE**
SCALE: 1"=10' (STA 20+70)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PRDVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PRDVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-36
DATE:10-23-02 SHT. NO. 100 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-36 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/06/02 19:32 WGH

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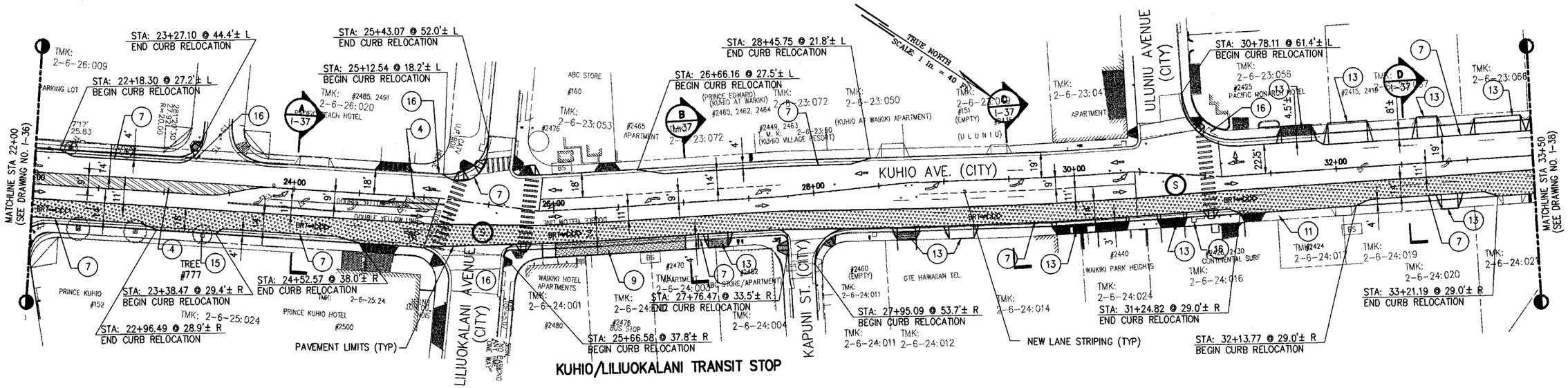
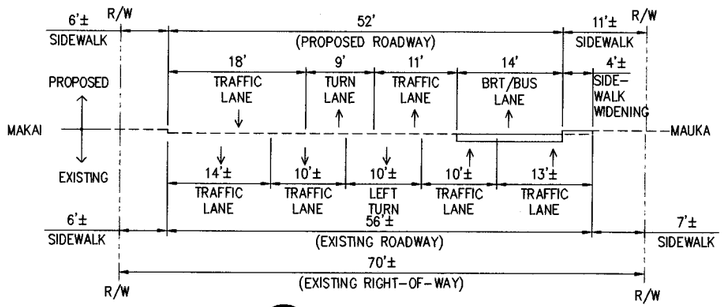
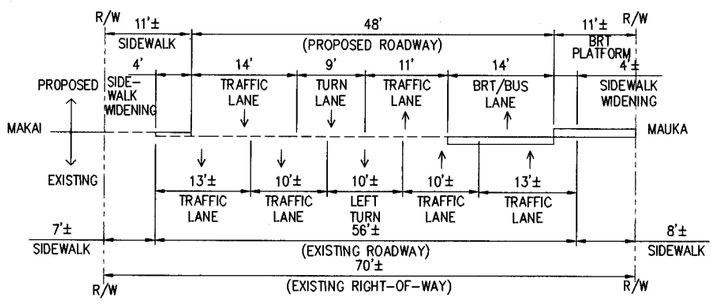


WAIKIKI SEGMENT PLAN

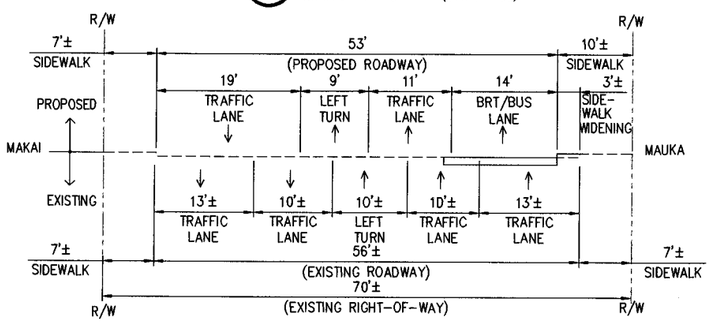
SCALE: 1" = 40'-0" (KUHIO STA 22+00 TO STA 33+50)



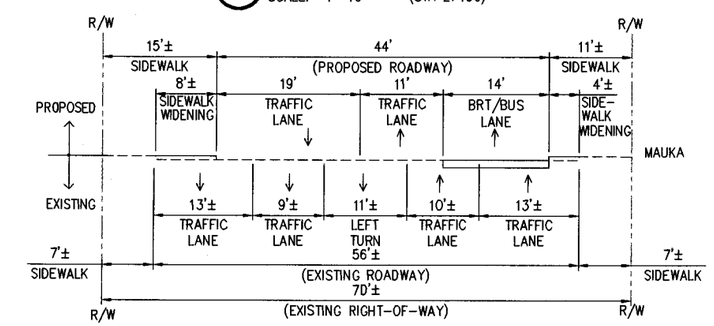
A I-37 **KUHIO AVENUE**
SCALE: 1"=10' (STA 24+DD)



B I-37 **KUHIO AVENUE**
SCALE: 1"=10' (STA 27+DO)



C I-37 **KUHIO AVENUE**
SCALE: 1"=10' (STA 29+50)



D I-37 **KUHIO AVENUE**
SCALE: 1"=10' (STA 32+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
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9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-37

DATE:10-23-02 SHT. NO. 101 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-37 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 07/06/02 19:35 WCH

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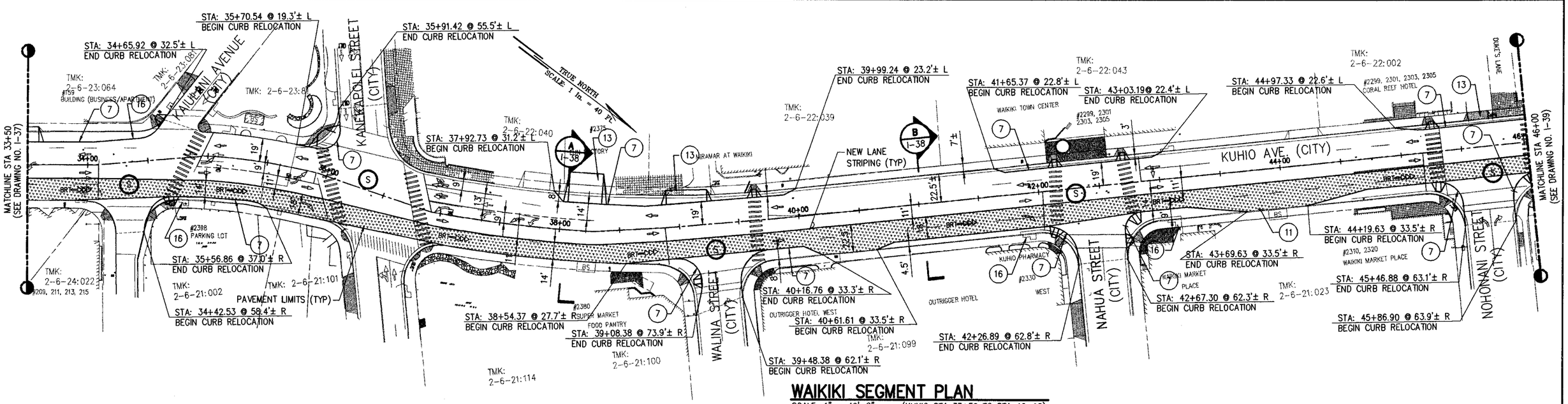
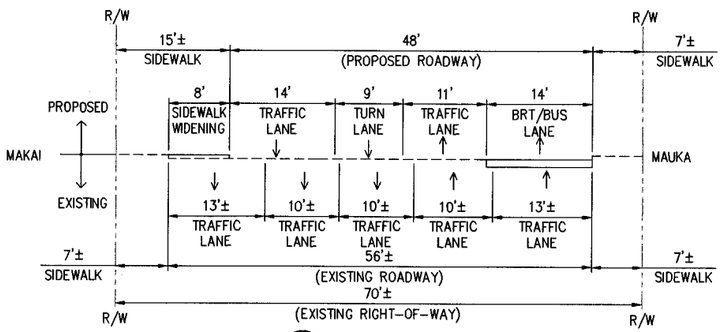


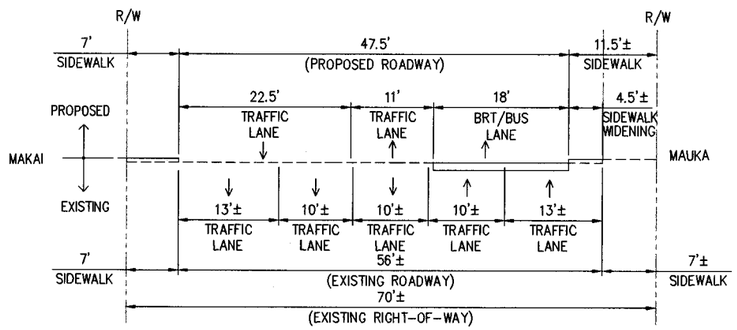
WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KUHIO STA 33+50 TO STA 46+00)



A I-38 KUHIO AVENUE

SCALE: 1"=10' (STA 38+00)



B I-38 KUHIO AVENUE

SCALE: 1"=10' (STA 41+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DDT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-38

DATE: 5-24-02 SHT. NO. 102 OF 142

I:\2000\2000_286.000 BRT\C DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-38 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 11/25/01 15:47 JXT

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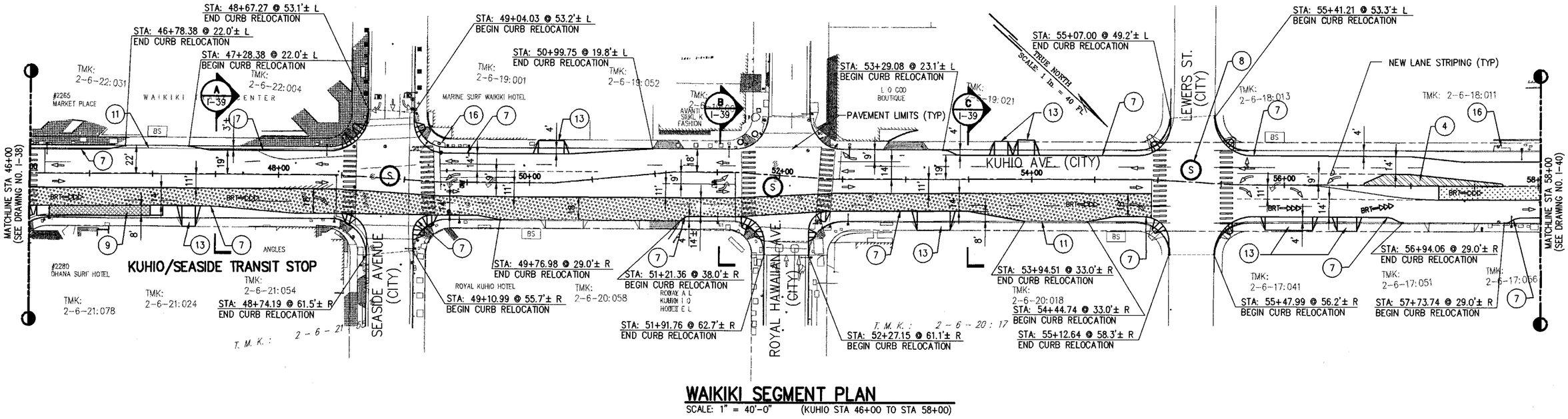
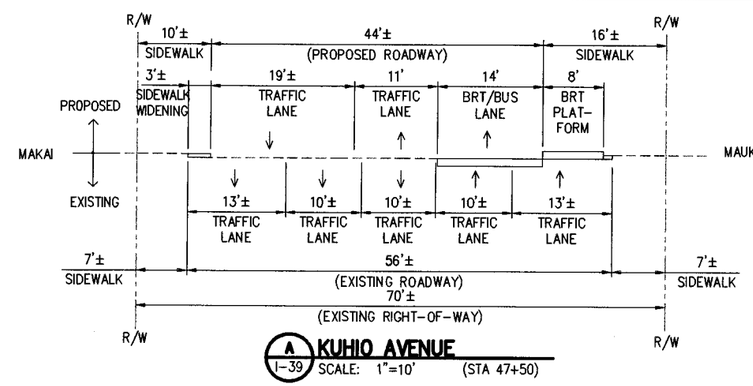
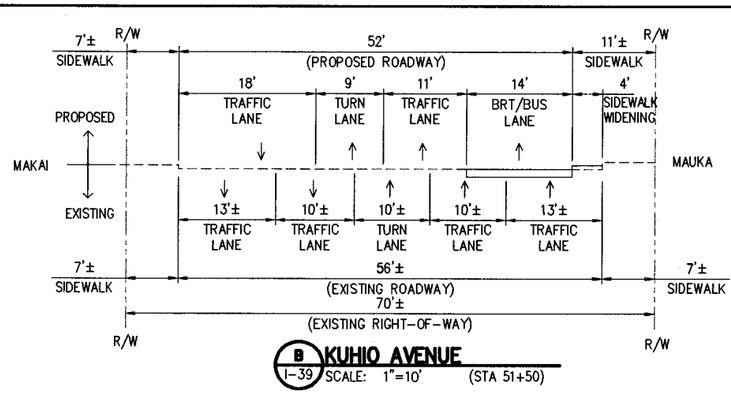
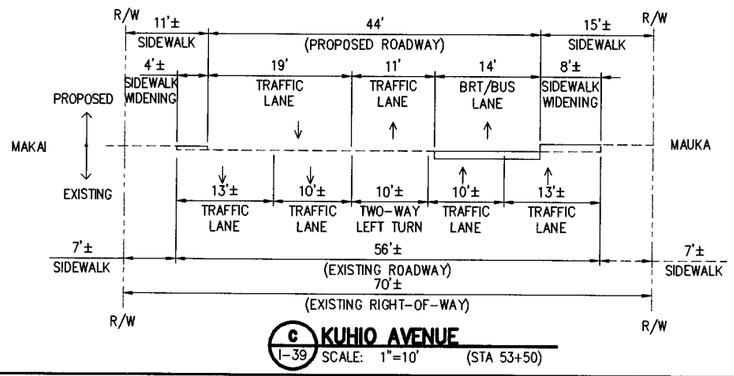


WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KUHIO STA 46+00 TO STA 58+00)







CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TD INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-39

DATE: 5-24-02 SHT. NO. 103 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-39 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 11/25/01 15:48 JXT

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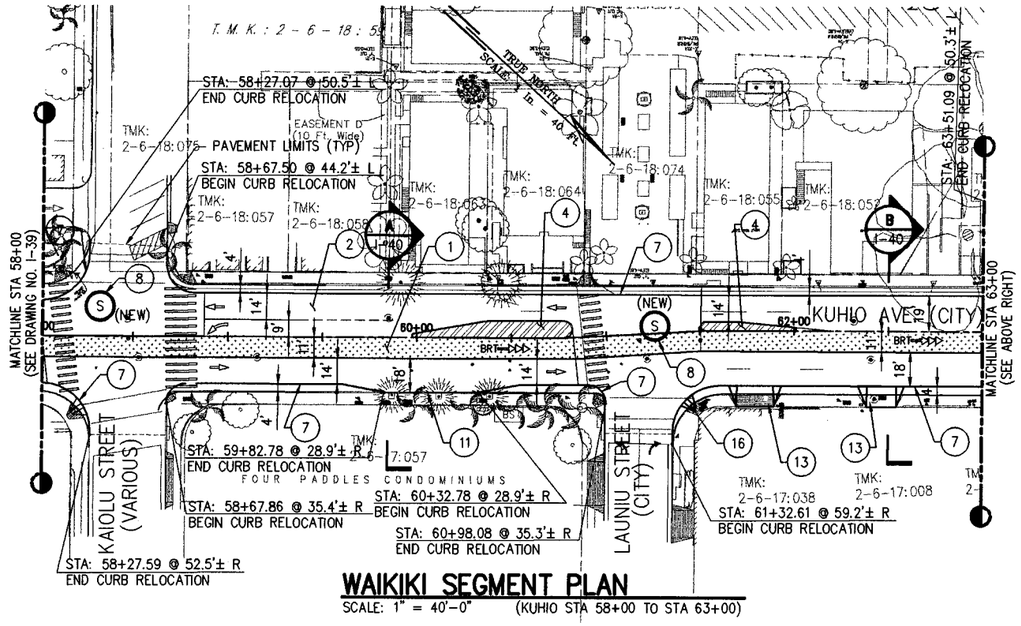
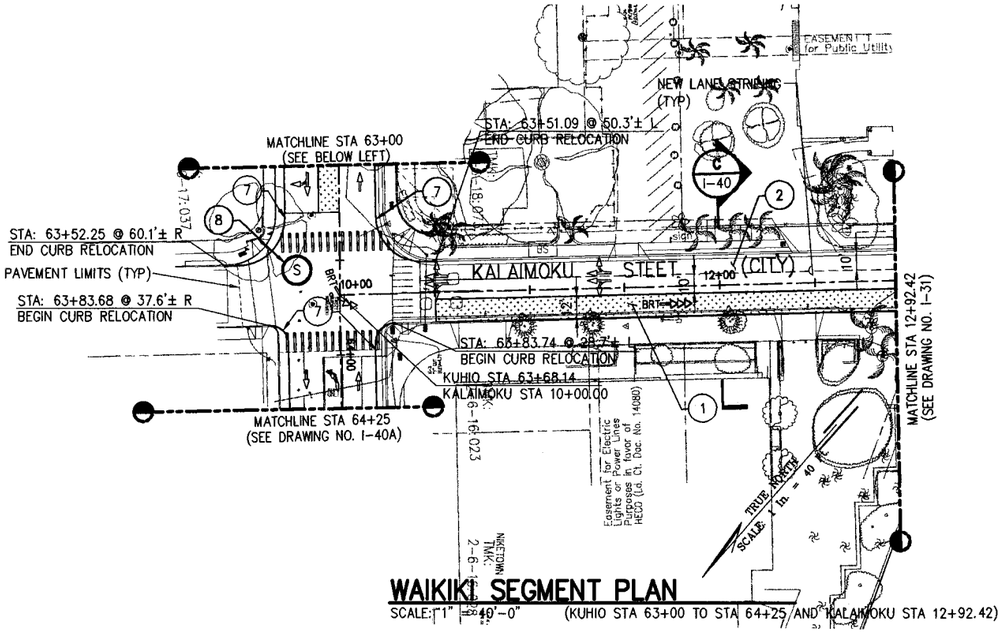


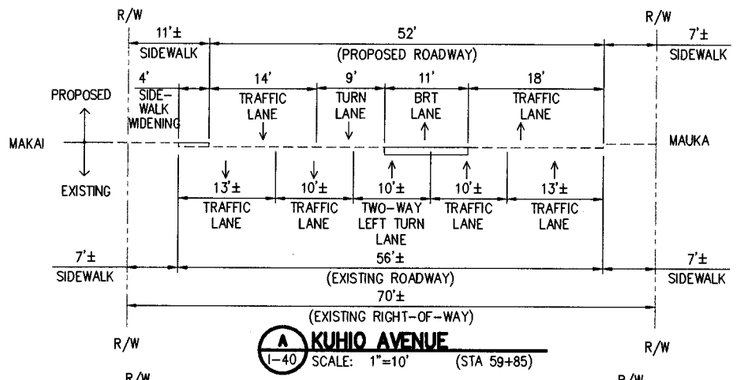
WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KUHIO STA 58+00 TO STA 63+00)

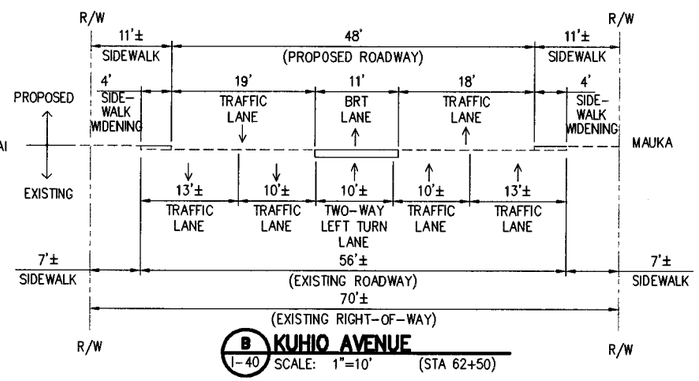


WAIKIKI SEGMENT PLAN

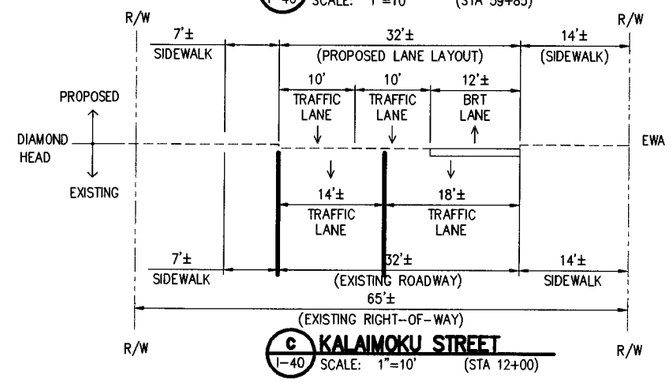
SCALE: 1" = 40'-0" (KUHIO STA 63+00 TO STA 64+25 AND KALAIMOKU STA 12+92.42)



A I-40 KUHIO AVENUE
SCALE: 1"=10' (STA 59+85)



B I-40 KUHIO AVENUE
SCALE: 1"=10' (STA 62+50)



C I-40 KALAIMOKU STREET
SCALE: 1"=10' (STA 12+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
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12. REMOVE EXISTING BUS STOP COMPLETE
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15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-40

DATE:10-23-02 SHT. NO. **104** OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\E-WAIKIKI SEGMENT\I-40 WAIKIKI SEGMENT PLAN AND SECTIONS.DWG 10/23/02 14:31 WGH

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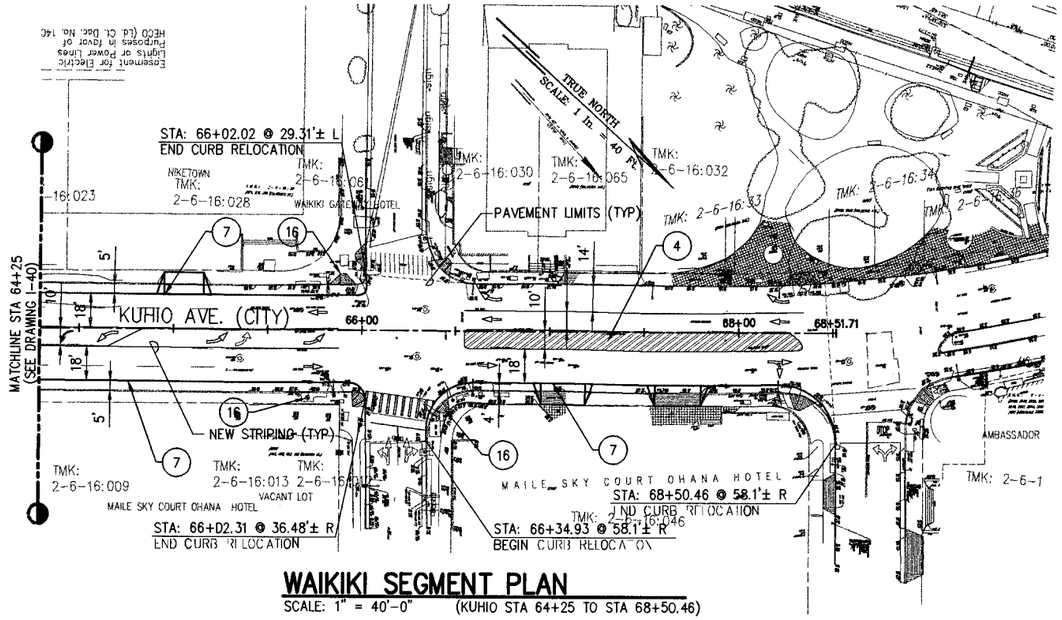

WAIKIKI SEGMENT PLAN

SCALE: 1" = 40'-0" (KUHIO STA 64+25 TO STA 68+50.46)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
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5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
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7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
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9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION (S)
- TRACTION POWER SUPPLY STATION (TPSS)
- BRT ROUTE (BRT)
- ADA CURB RAMP
- BUS STOP (BS)
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
WAIKIKI SEGMENT
PRELIMINARY ENGINEERING PLAN

DRAWING NO. I-40A

DATE: 5-24-02 SHT. NO. 105 OF 142

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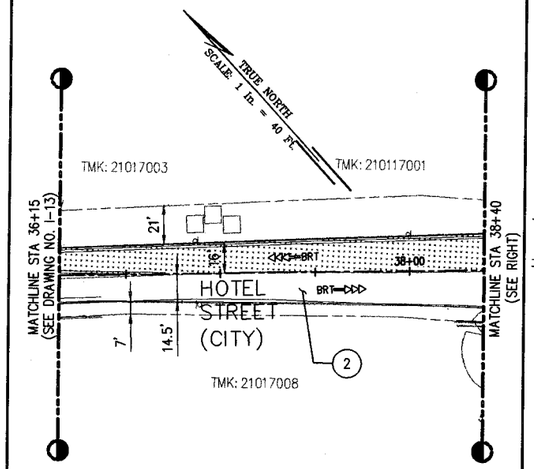
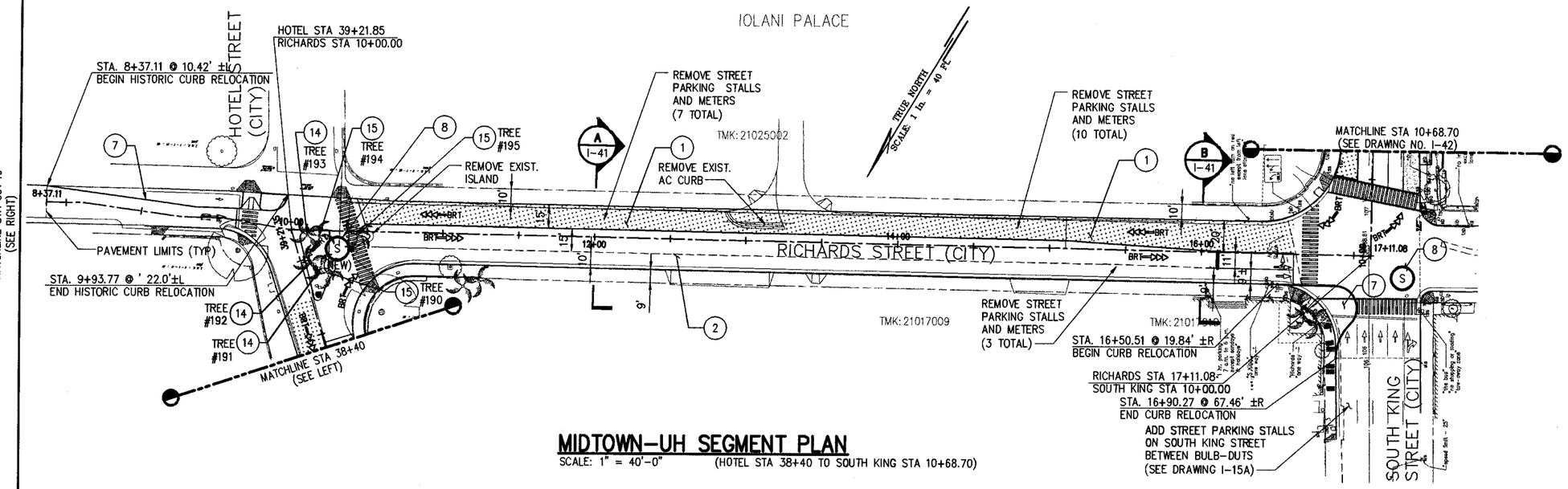


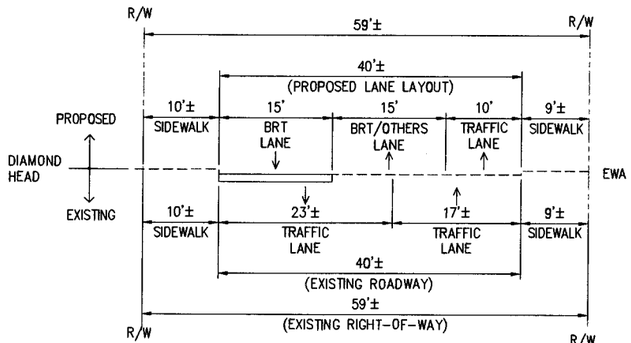
MIDTOWN–UH SEGMENT PLAN

SCALE: 1" = 40'–0" (HOTEL STA 36+15 TO 38+40)

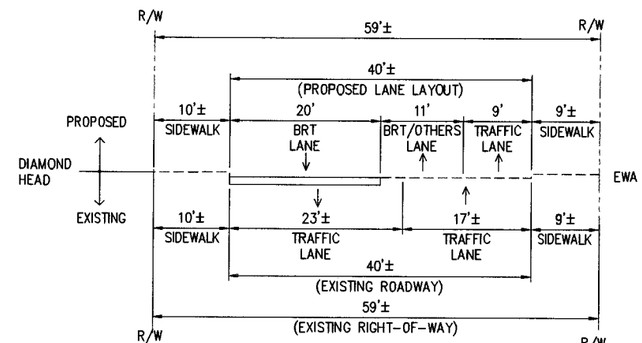


MIDTOWN–UH SEGMENT PLAN

SCALE: 1" = 40'–0" (HOTEL STA 38+40 TO SOUTH KING STA 10+68.70)



A I-41 **RICHARDS STREET**
SCALE: 1"=10' (STA 12+00)



B I-41 **RICHARDS STREET**
SCALE: 1"=10' (STA 16+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN–TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN–UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I–41

DATE:10–23–02 SHT. NO. 106 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B–MIDTOWN–UH SEGMENT\I–41 MIDTOWN–UH SEGMENT PLAN AND SECTIONS.DWG 07/06/02 19:36 WGH

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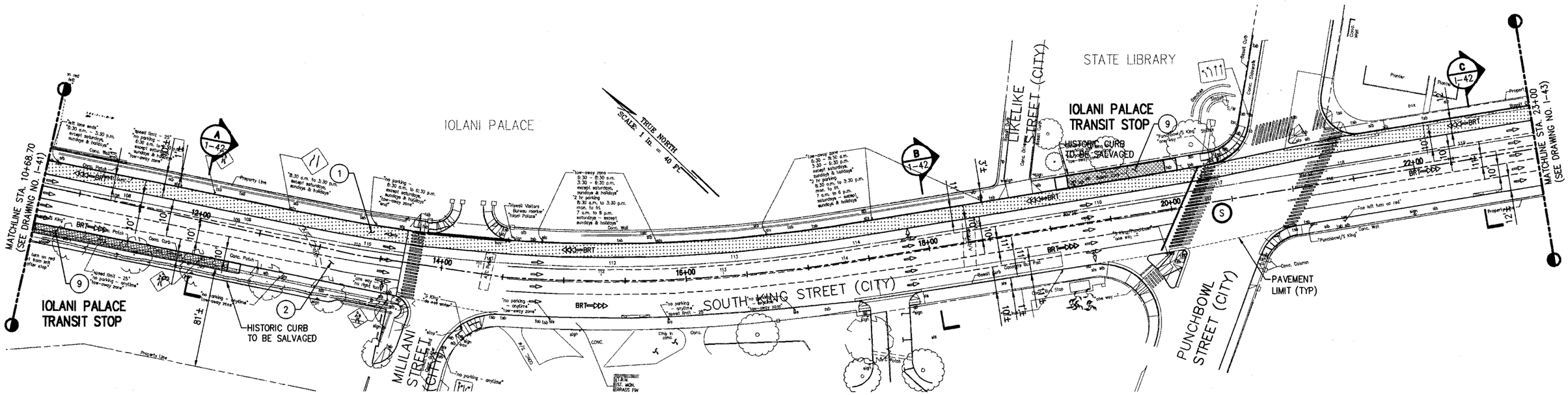
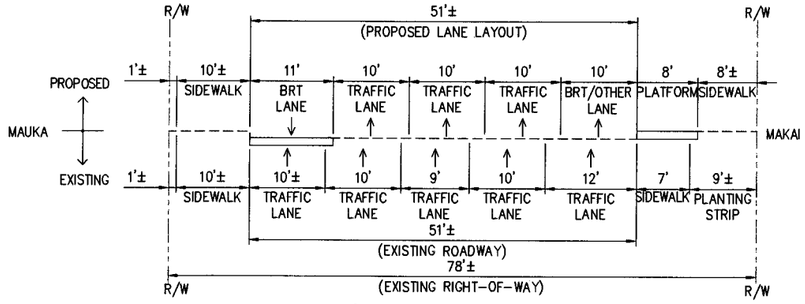
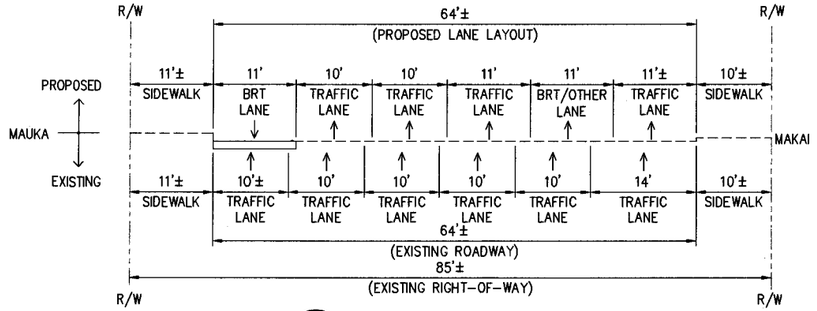


MIDTOWN–UH SEGMENT PLAN

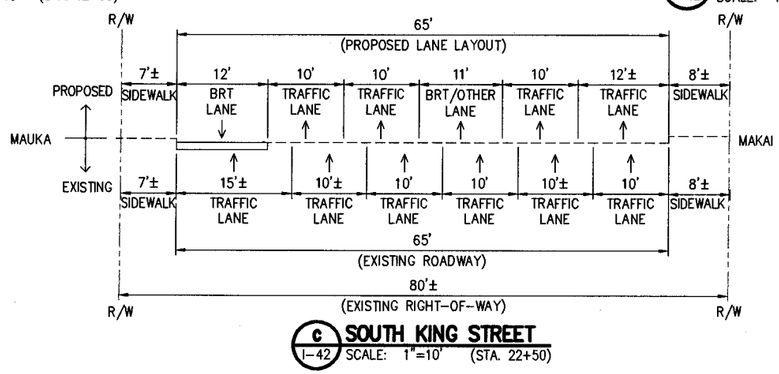
SCALE: 1" = 40' (SOUTH KING STA 10+68.70 TO STA 23+00)



A SOUTH KING STREET
I–42 SCALE: 1"=10' (STA. 12+00)



B SOUTH KING STREET
I–42 SCALE: 1"=10' (STA. 18+00)



C SOUTH KING STREET
I–42 SCALE: 1"=10' (STA. 22+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI–EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- ⋘BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT–OF–WAY
- NEW RIGHT–OF–WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN–TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN–UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I–42

DATE: 5–24–02 | SHT. NO. 107 OF 142

I:\2000\2000_286.000 BRT\C DRAWINGS\CONTRACT DOCUMENTS\B–MIDTOWN–UH SEGMENT\I–42 MIDTOWN–UH SEGMENT PLAN AND SECTIONS.DWG 05/24/02 13:40 JCH

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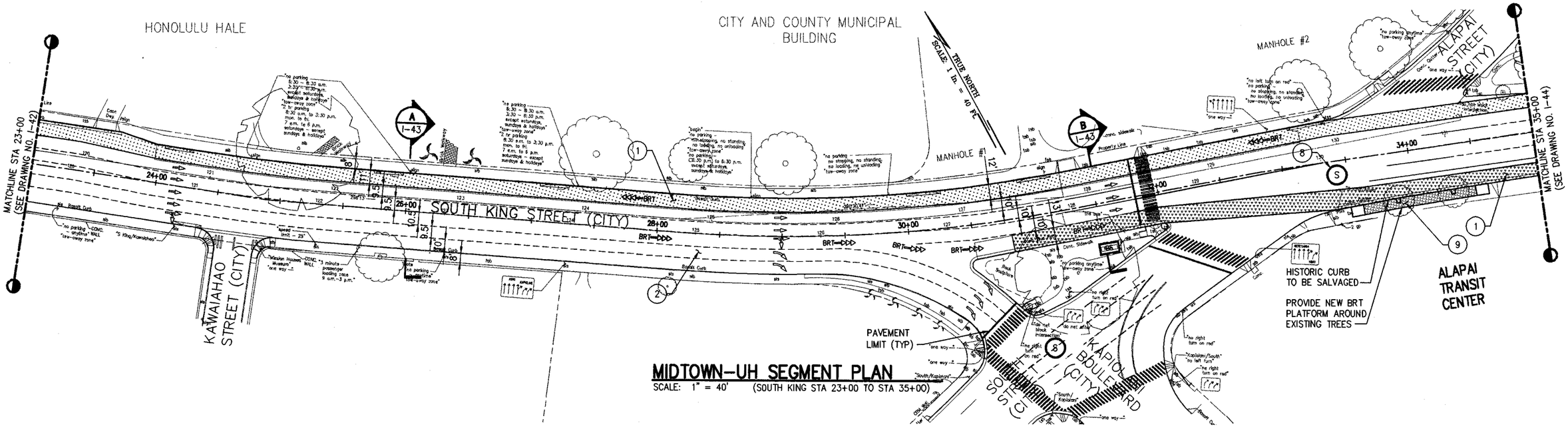
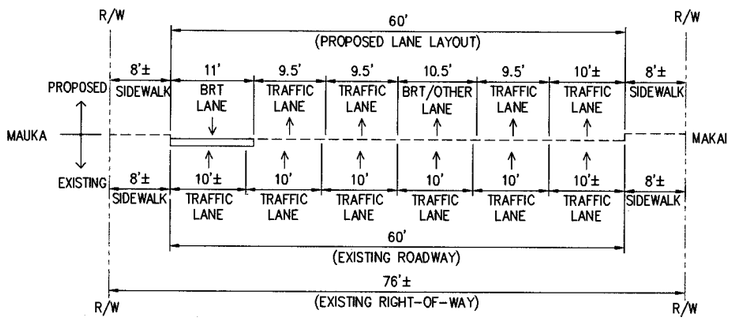
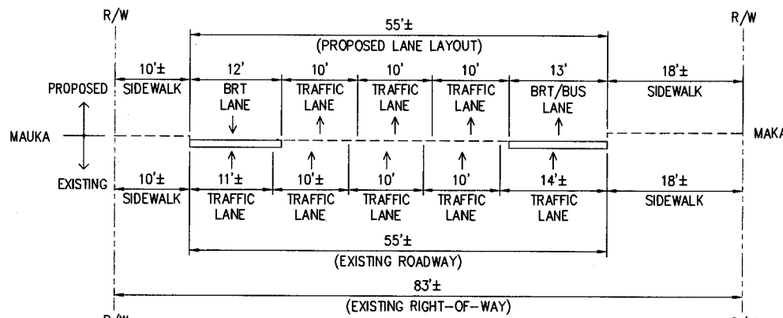


MIDTOWN–UH SEGMENT PLAN

SCALE: 1" = 40' (SOUTH KING STA 23+00 TO STA 35+00)



A SOUTH KING STREET
I-43 SCALE: 1"=10' (STA. 26+00)



B SOUTH KING STREET
I-43 SCALE: 1"=10' (STA. 31+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PRDVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN–UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-43

DATE: 5-24-02 SHT. NO. 108 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-43 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 11/26/01 06:54 JCH

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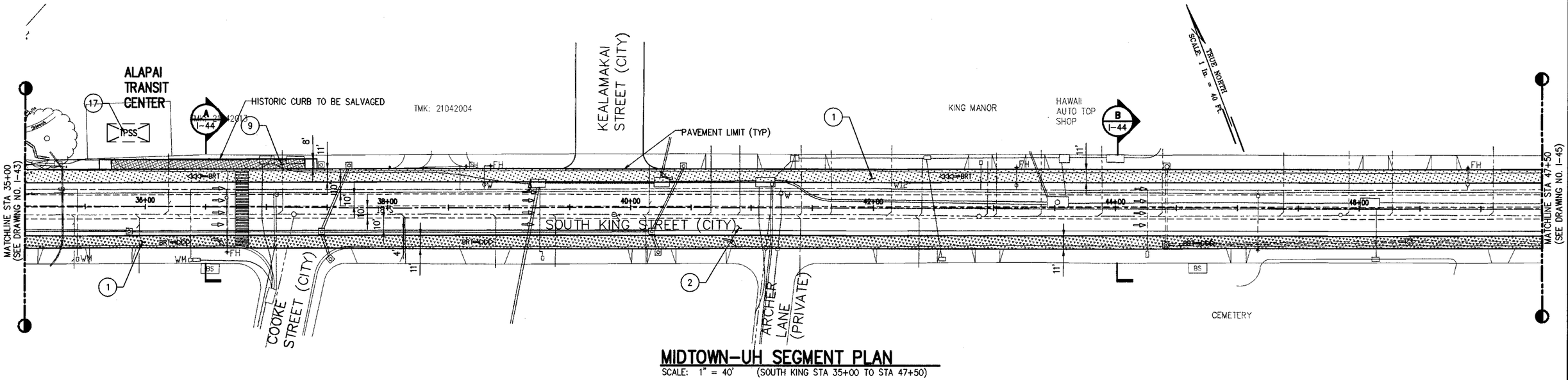
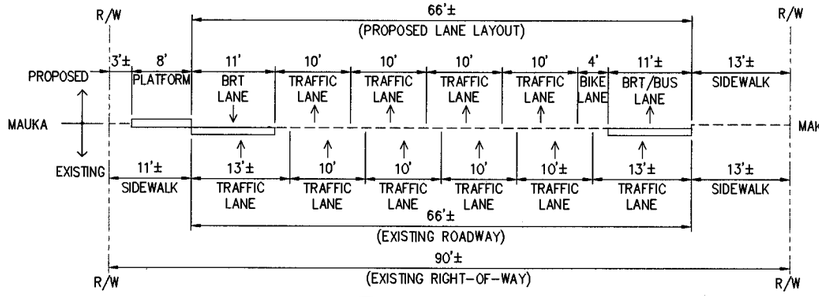
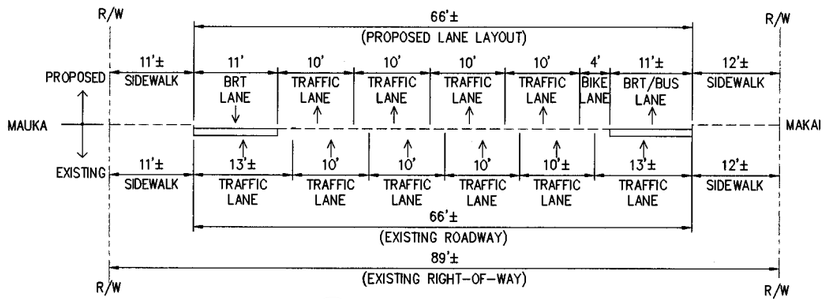


MIDTOWN–UH SEGMENT PLAN

SCALE: 1" = 40' (SOUTH KING STA 35+00 TO STA 47+50)



A I-44 **SOUTH KING STREET**
SCALE: 1"=10' (STA. 36+50)



B I-44 **SOUTH KING STREET**
SCALE: 1"=10' (STA. 44+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DDT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHDWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN–UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-44

DATE: 5-24-02 | SHT. NO. 109 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-44 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/24/02 13:41 JCH

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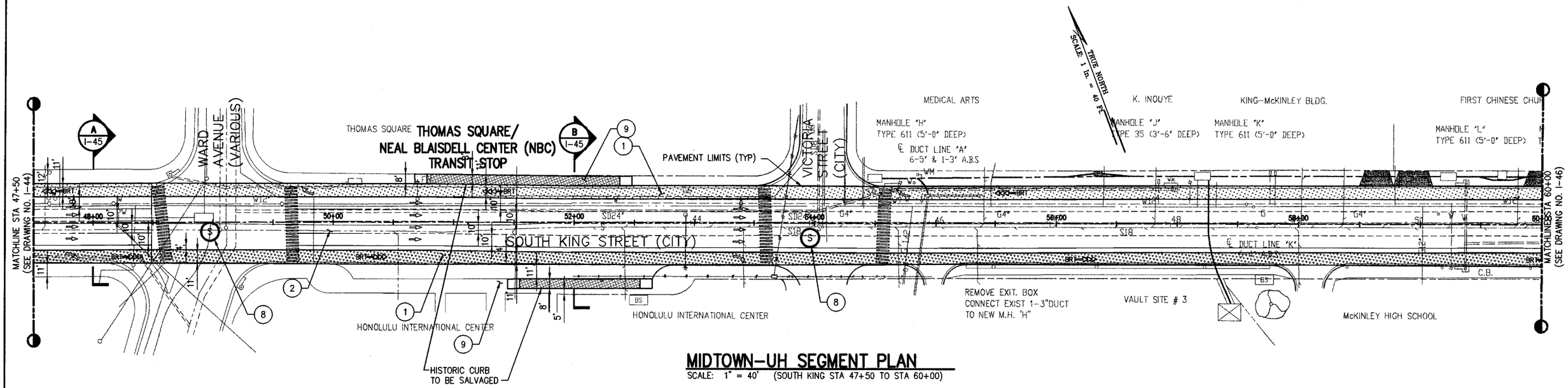
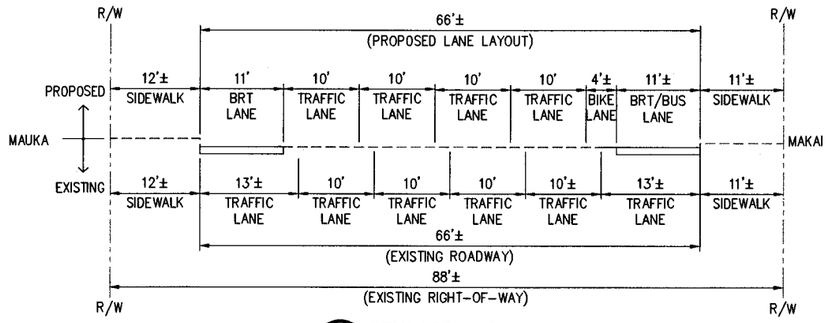
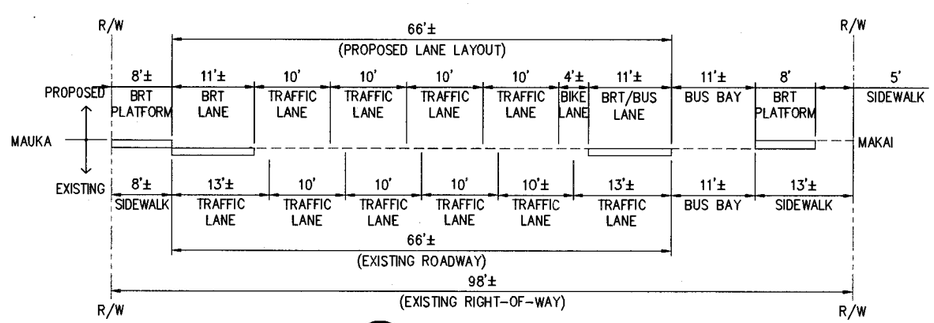


MIDTOWN-UH SEGMENT PLAN

SCALE: 1" = 40' (SOUTH KING STA 47+50 TO STA 60+00)



A I-45 **PENSACOLA STREET**
SCALE: 1"=10' (STA. 48+00)



B I-45 **PENSACOLA STREET**
SCALE: 1"=10' (STA. 52+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHDWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION (S)
- TRACTION POWER SUPPLY STATION (TPSS)
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP (BS)
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-45

DATE: 5-24-02 | SHT. NO. 110 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-45 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/24/02 13:45 JCH

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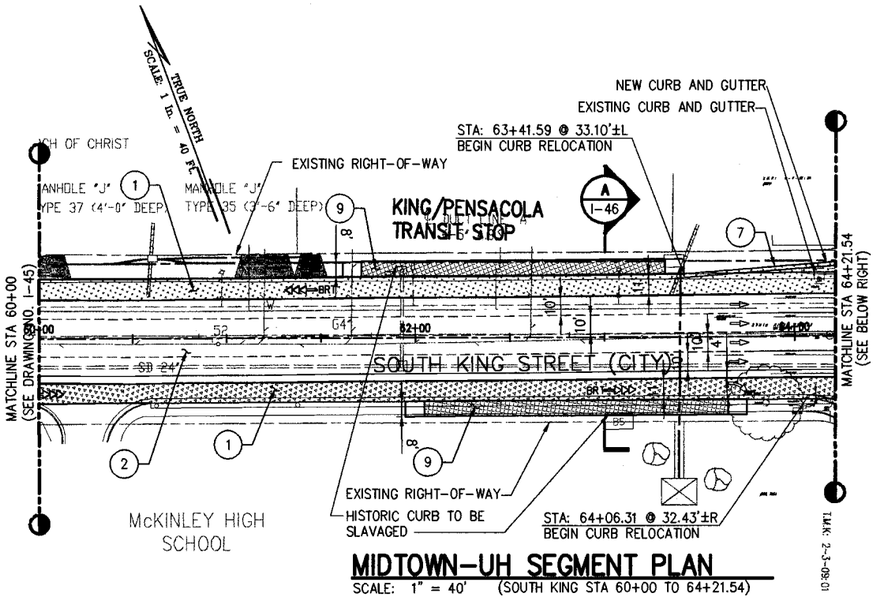
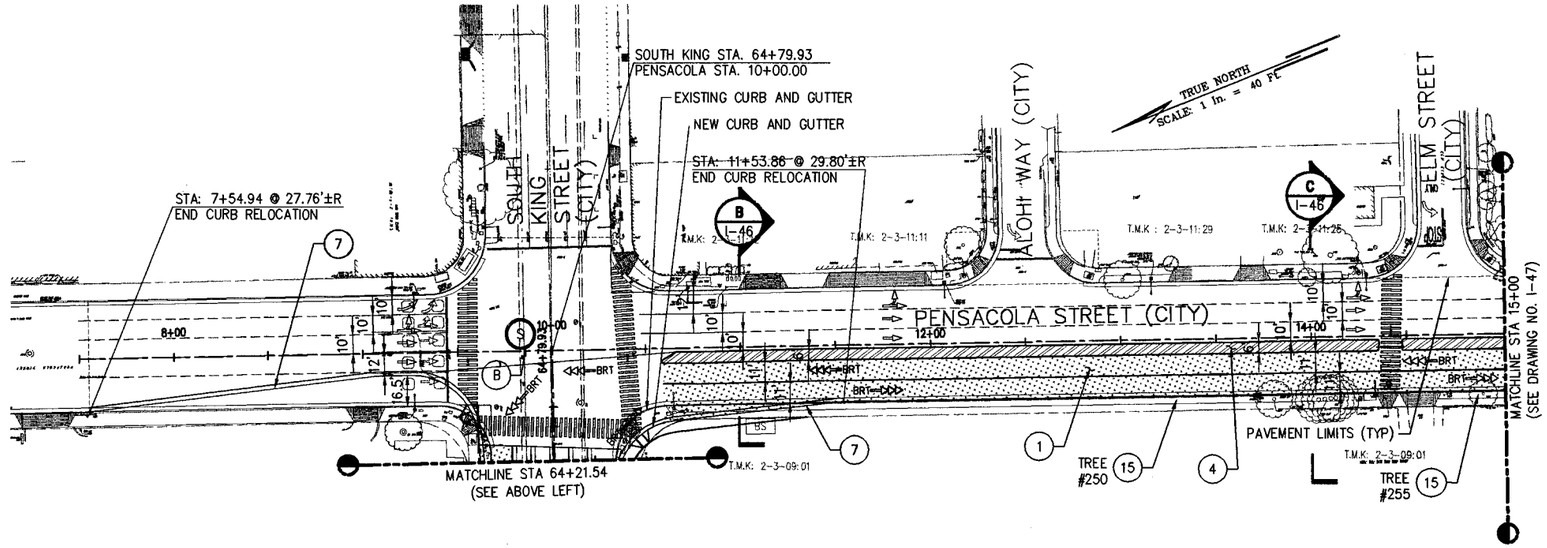


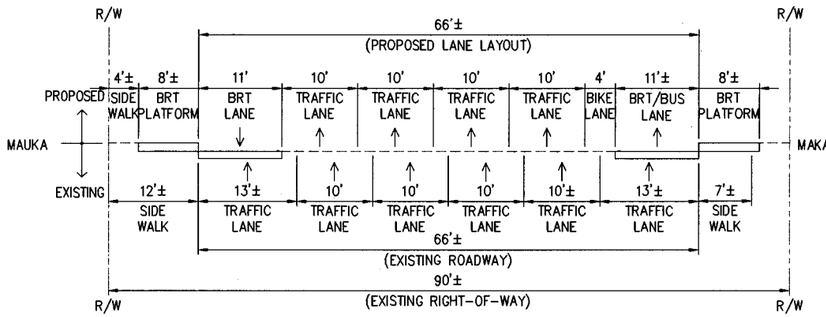
MIDTOWN-UH SEGMENT PLAN

SCALE: 1" = 40' (SOUTH KING STA 60+00 TO 64+21.54)

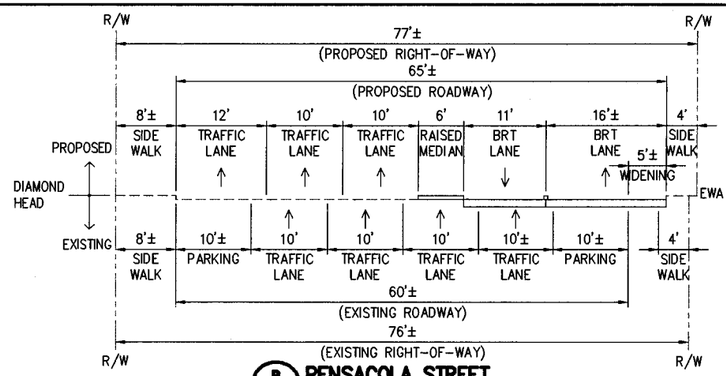


MIDTOWN-UH SEGMENT PLAN

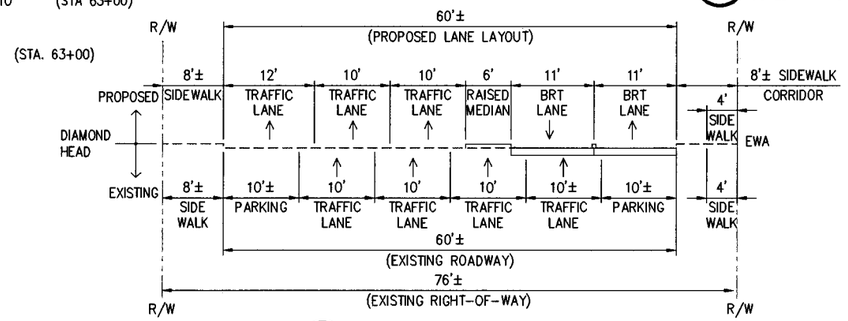
SCALE: 1" = 40' (SOUTH KING STA 64+21.54 TO PENSACOLA STA 15+00)



A SOUTH KING STREET
I-46 SCALE: 1"=10' (STA 63+00)



B PENSACOLA STREET
I-46 SCALE: 1"=10' (STA 11+00)



C PENSACOLA STREET
I-46 SCALE: 1"=10' (STA 14+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-46

DATE:10-23-02 SHT. NO. 111 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-46 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 07/06/02 20:09 WGH

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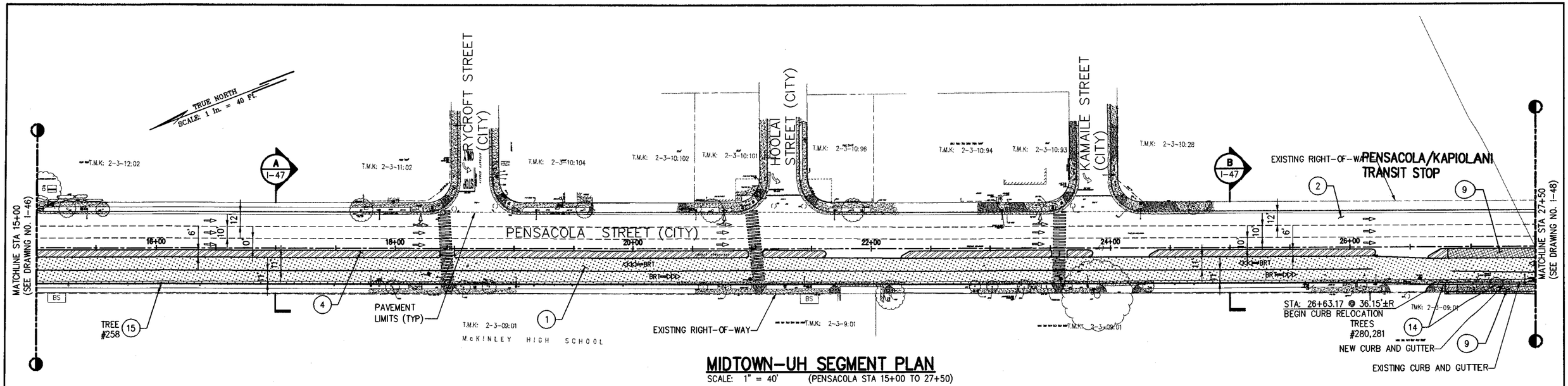
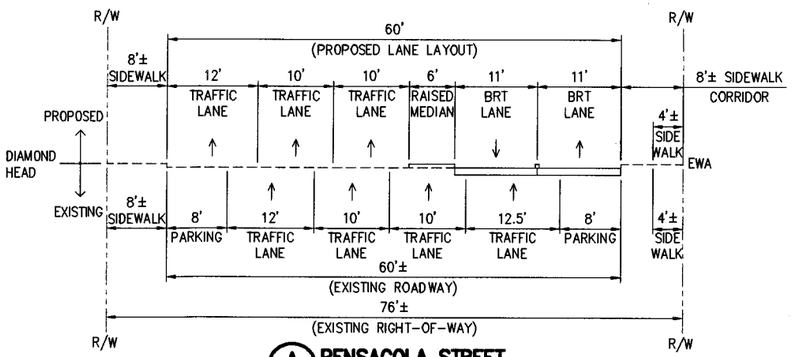
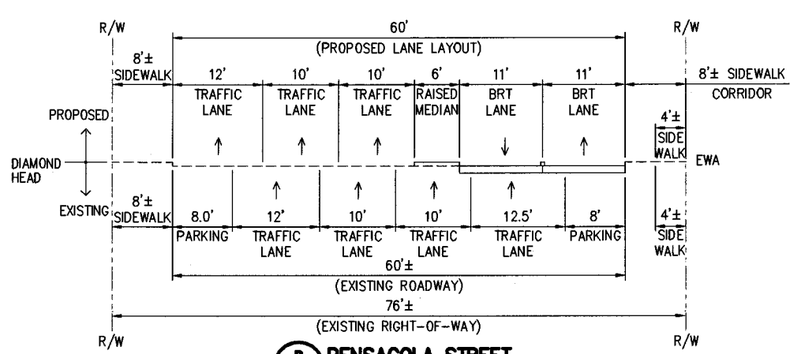


MIDTOWN–UH SEGMENT PLAN

SCALE: 1" = 40' (PENSACOLA STA 15+00 TO 27+50)



A I-47 **PENSACOLA STREET**
SCALE: 1"=10' (STA. 17+00)



B I-47 **PENSACOLA STREET**
SCALE: 1"=10' (STA. 25+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN–TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN–UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I–47

DATE:10–23–02 | SHT. NO. 112 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B–MIDTOWN–UH SEGMENT\I–47–MIDTOWN–UH SEGMENT PLAN AND SECTIONS.DWG 07/06/02 20:13 WGH

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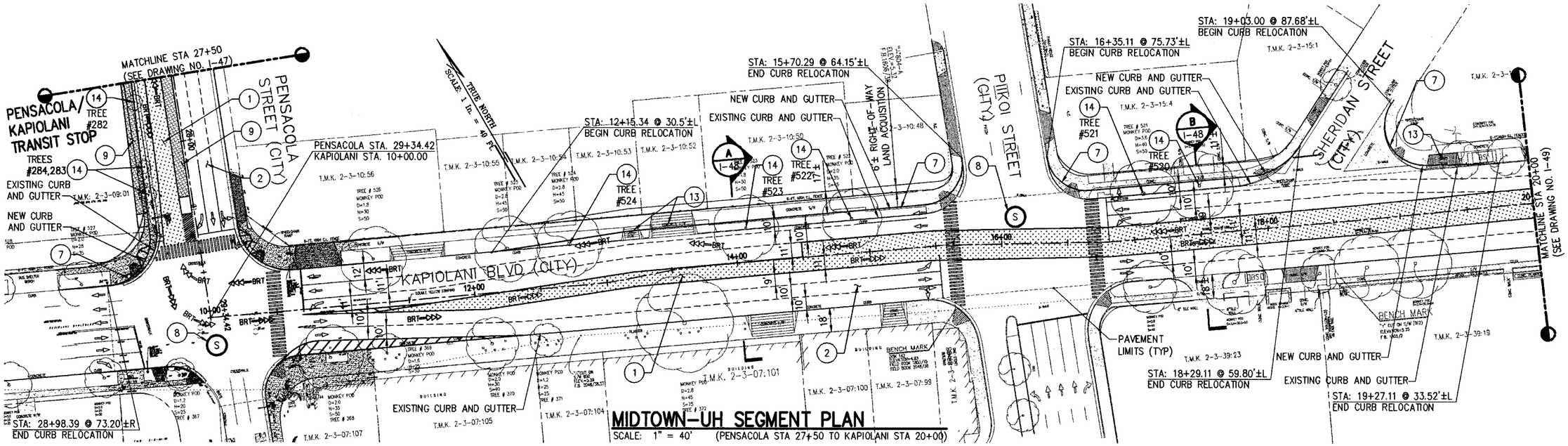
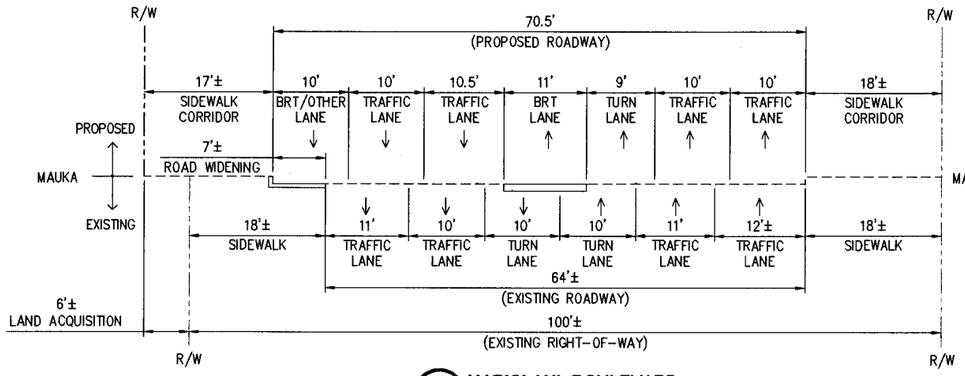
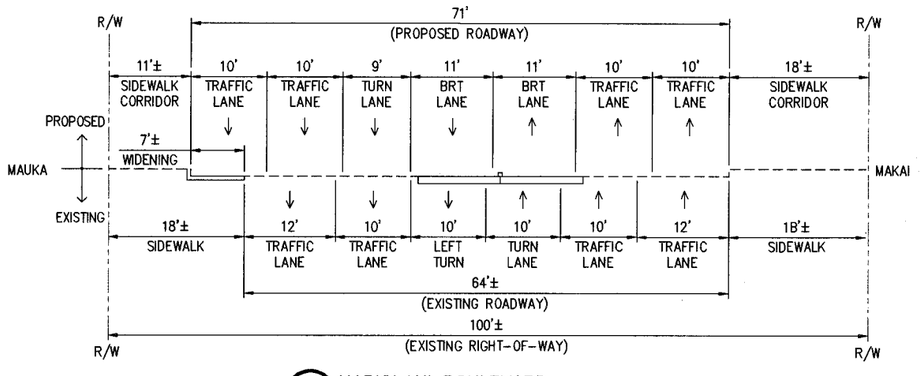




A I-48 KAPIOLANI BOULEVARD
SCALE: 1"=10' (STA. 14+00)



B I-48 KAPIOLANI BOULEVARD
SCALE: 1"=10' (STA. 17+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/DR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-48
DATE: 5-24-02 | SHT. NO. 113 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-48 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/24/02 15:01 JCH

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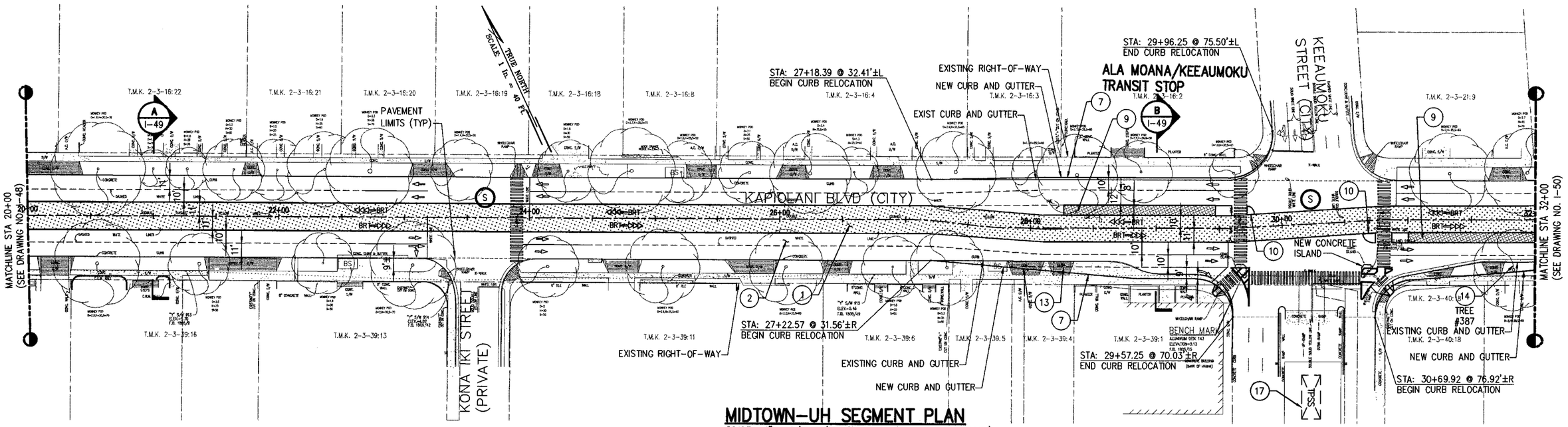
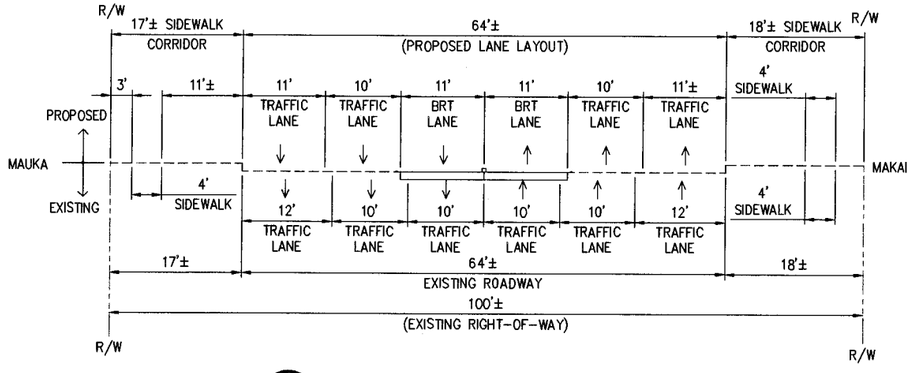
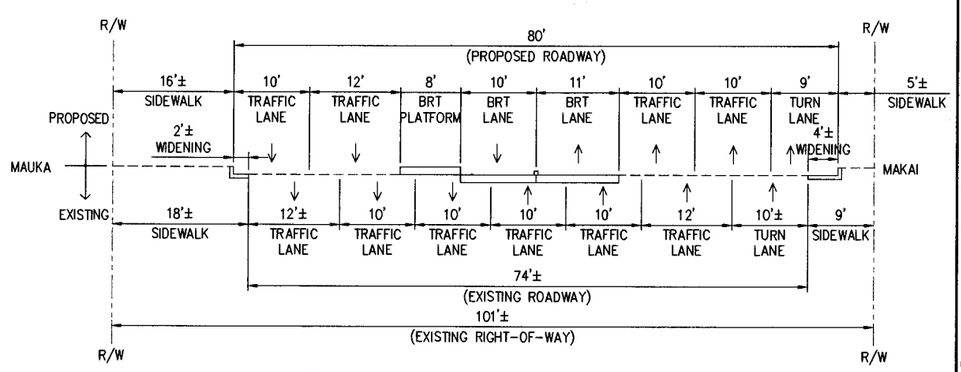


MIDTOWN-UH SEGMENT PLAN

SCALE: 1" = 40' (KAPIOLANI STA 20+00 TO STA 32+00)



A I-49 **KAPIOLANI BOULEVARD**
SCALE: 1"=10' (STA. 21+00)



B I-49 **KAPIOLANI BOULEVARD**
SCALE: 1"=10' (STA. 29+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PRDVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-49

DATE: 5-24-02 SHT. NO. 114 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-49 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/24/02 15:03 JCH

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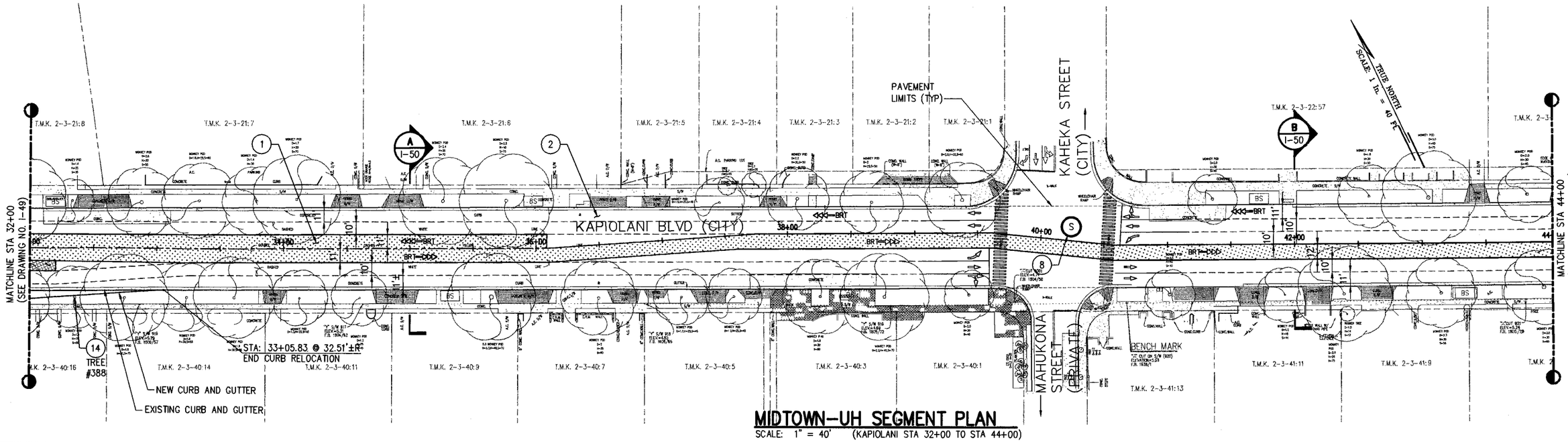
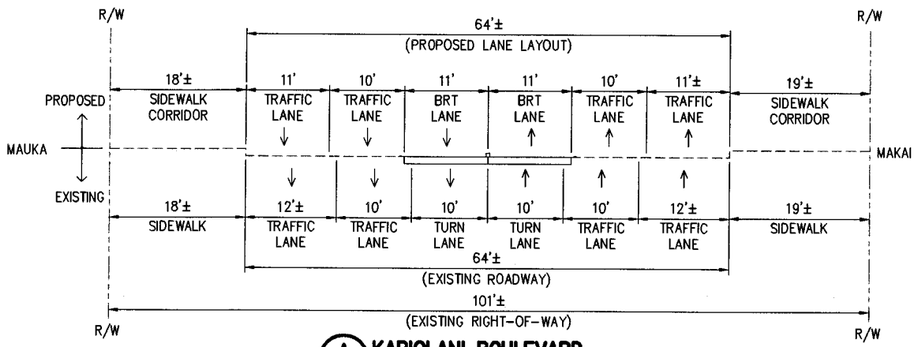
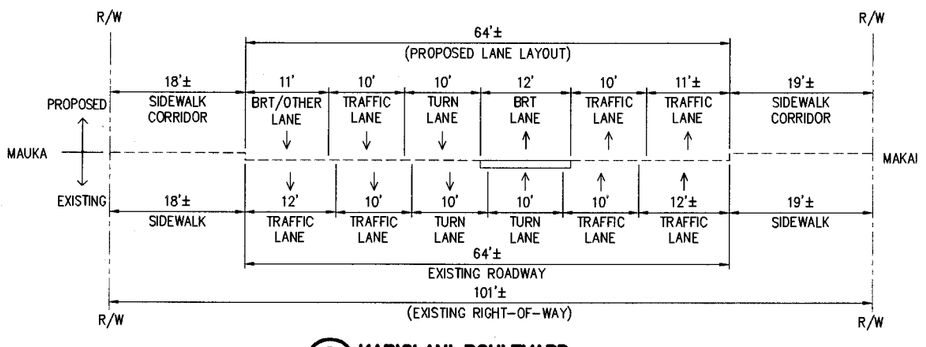


MIDTOWN-UH SEGMENT PLAN

SCALE: 1" = 40' (KAPIOLANI STA 32+00 TO STA 44+00)



A I-50 **KAPIOLANI BOULEVARD**
SCALE: 1"=10' (STA. 35+00)



B I-50 **KAPIOLANI BOULEVARD**
SCALE: 1"=10' (STA. 42+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-50

DATE: 5-24-02 SHT. NO. 115 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-50 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 11/26/01 08:01 JCH

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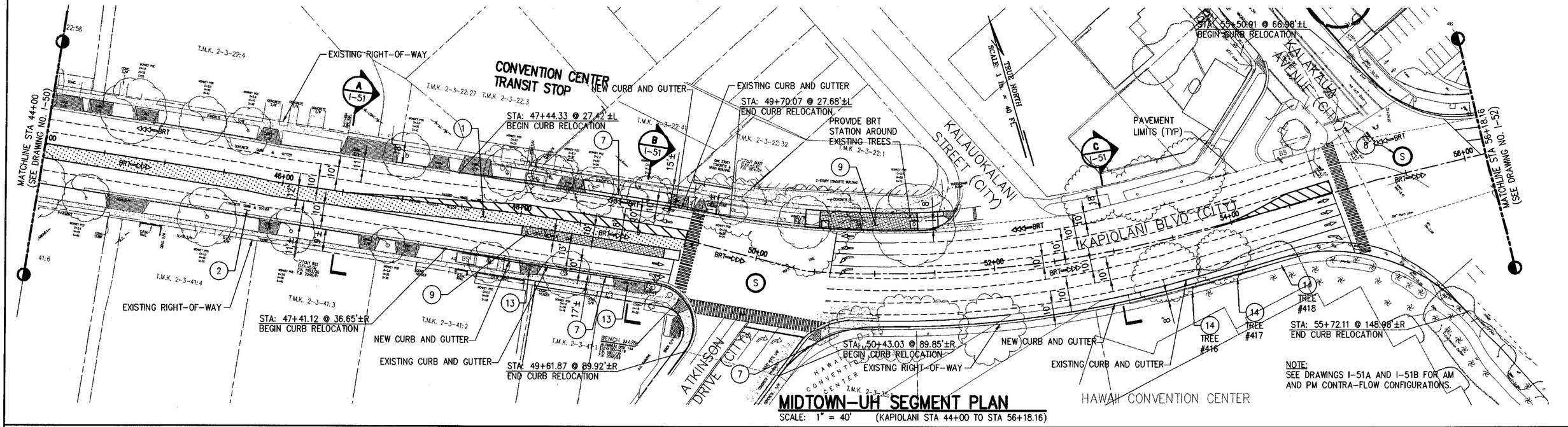
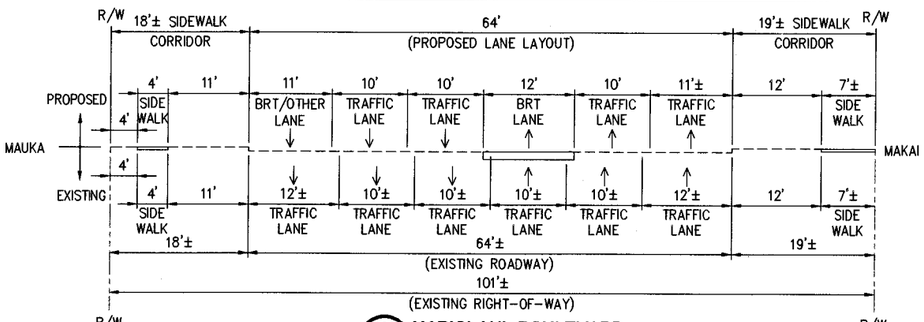
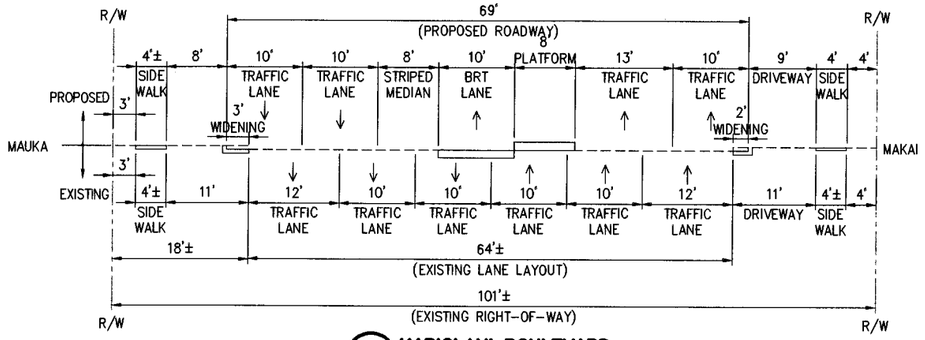


MIDTOWN–UH SEGMENT PLAN

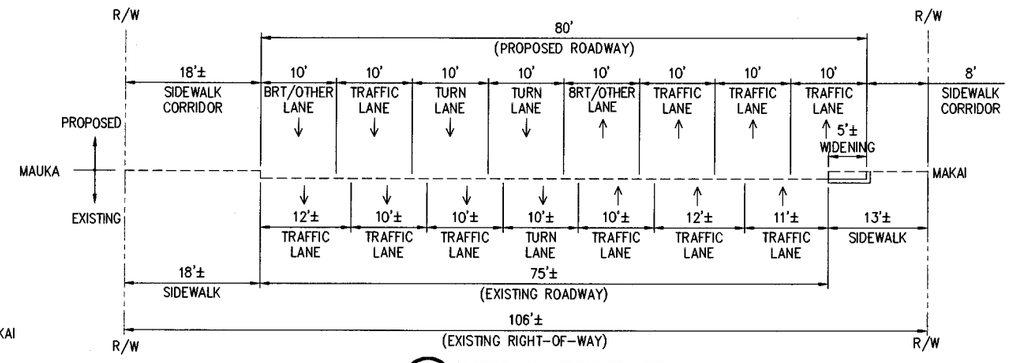
SCALE: 1" = 40' (KAPIOLANI STA 44+00 TO STA 56+18.16)



A I-51 **KAPIOLANI BOULEVARD**
SCALE: 1"=10' (STA. 46+50)



B I-51 **KAPIOLANI BOULEVARD**
SCALE: 1"=10' (STA. 49+00)



C I-51 **KAPIOLANI BOULEVARD**
SCALE: 1"=10' (STA. 53+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- ◁◁◁—BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN–TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN–UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTION

DRAWING NO. I–51

DATE: 5–24–02 | SHT. NO. 116 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B–MIDTOWN–UH SEGMENT\I–51 MIDTOWN–UH SEGMENT PLAN AND SECTIONS.DWG 05/28/02 15:18 JCH

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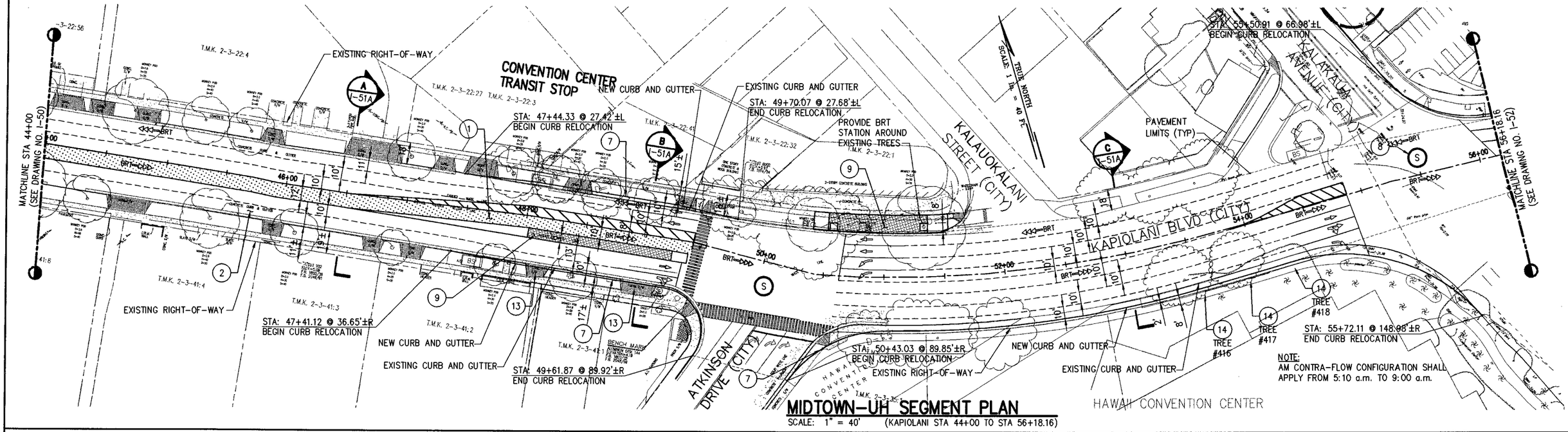
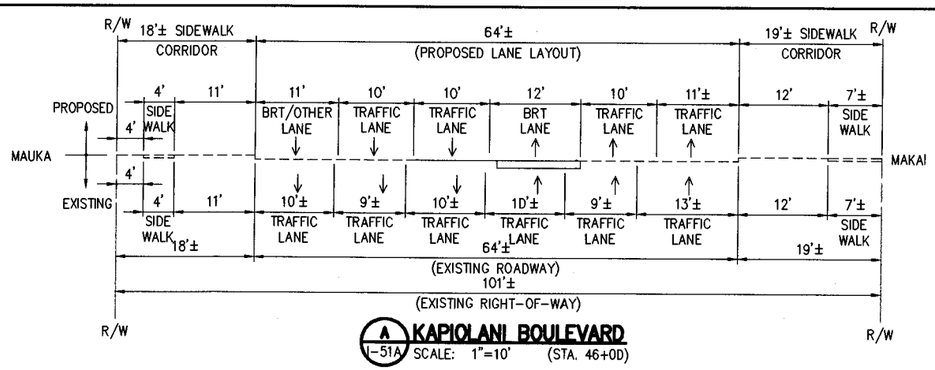
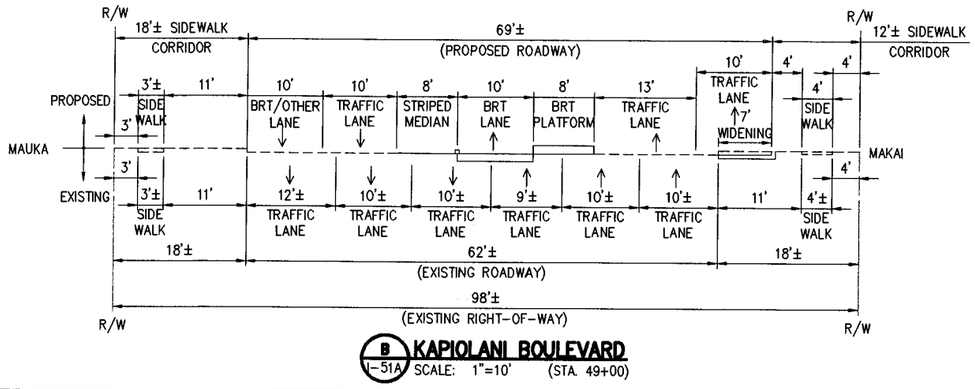


MIDTOWN-UH SEGMENT PLAN

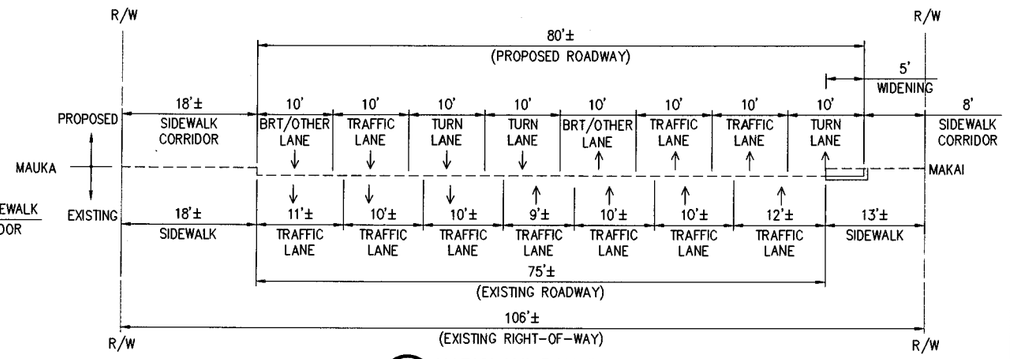
SCALE: 1" = 40' (KAPIOLANI STA 44+00 TO STA 56+18.16)



A KAPIOLANI BOULEVARD (I-51A) SCALE: 1"=10' (STA. 46+0D)



B KAPIOLANI BOULEVARD (I-51A) SCALE: 1"=10' (STA. 49+00)



C KAPIOLANI BOULEVARD (I-51A) SCALE: 1"=10' (STA. 53+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTION
AM CONTRA-FLOW CONFIGURATION

DRAWING NO. I-51A

DATE: 5-24-02 | SHT. NO. 117 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-51A MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/28/02 15:19 JCH

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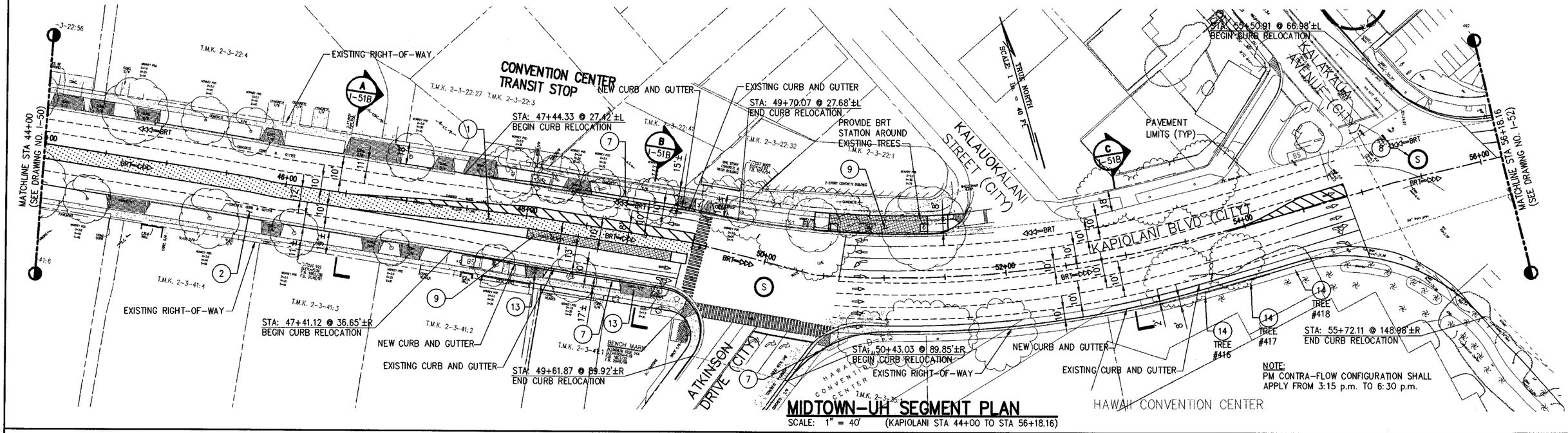
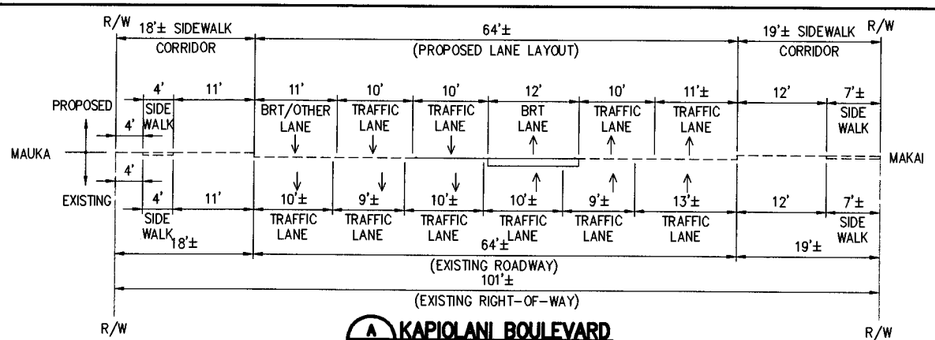
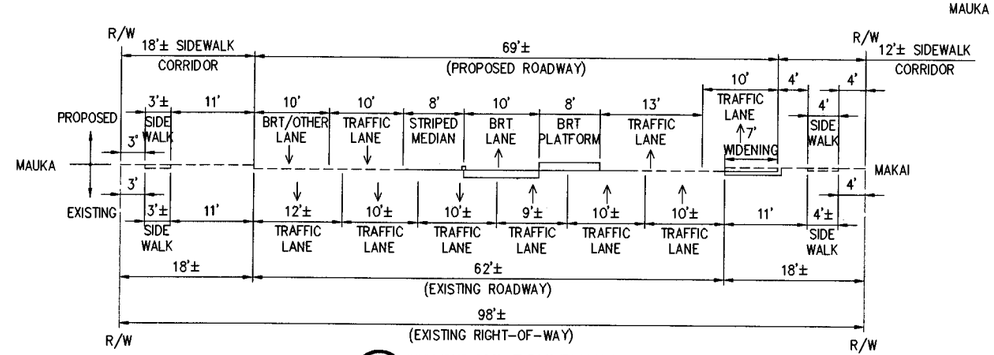


MIDTOWN-UH SEGMENT PLAN

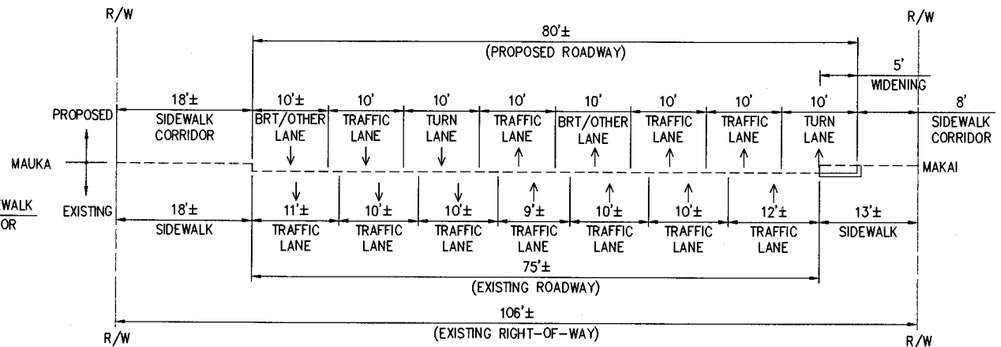
SCALE: 1" = 40' (KAPIOLANI STA 44+00 TO STA 56+18.16)



A KAPIOLANI BOULEVARD
I-51B SCALE: 1"=10' (STA. 46+00)



B KAPIOLANI BOULEVARD
I-51B SCALE: 1"=10' (STA. 49+00)



C KAPIOLANI BOULEVARD
I-51B SCALE: 1"=10' (STA. 53+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
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6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
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12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTION
PM CONTRA-FLOW CONFIGURATION

DRAWING NO. I-51B

DATE: 5-24-02 SHT. NO. 118 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-51B MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/24/02 15:12 JCH

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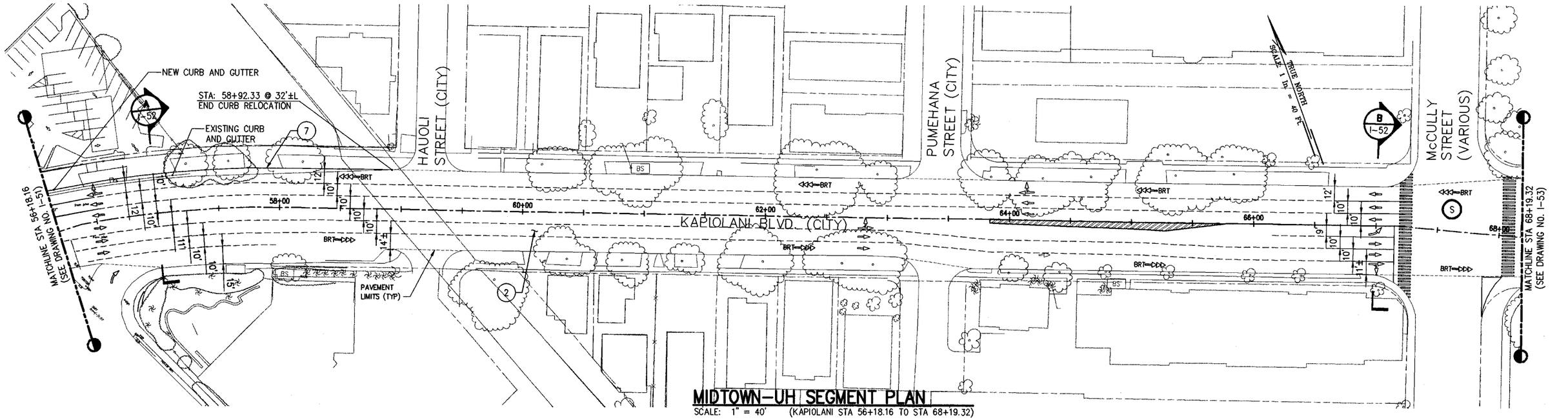
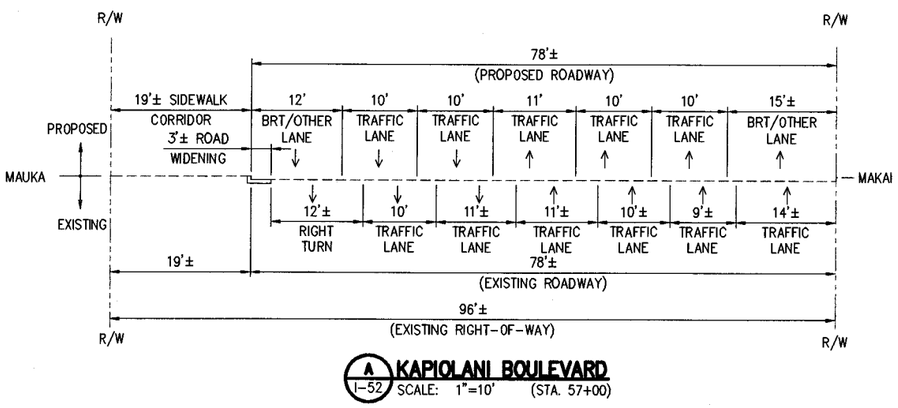
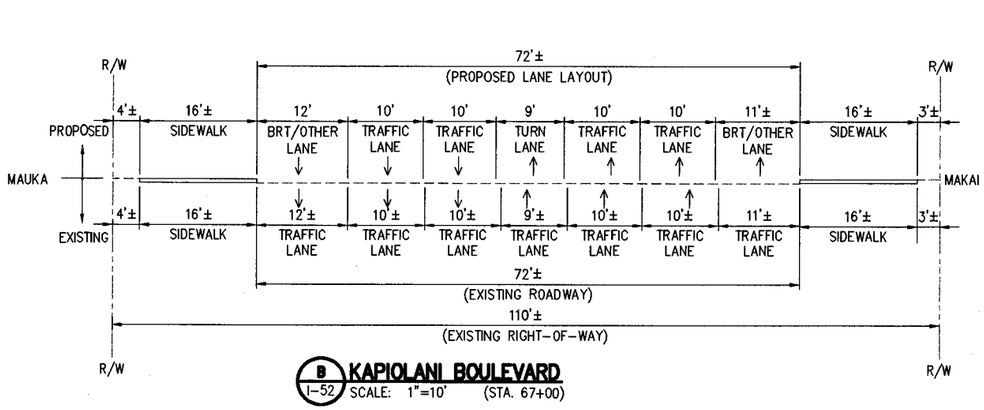


MIDTOWN-UH SEGMENT PLAN

SCALE: 1" = 40' (KAPIOLANI STA 56+18.16 TO STA 68+19.32)



A I-52 **KAPIOLANI BOULEVARD**
SCALE: 1"=10' (STA. 57+00)



B I-52 **KAPIOLANI BOULEVARD**
SCALE: 1"=10' (STA. 67+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-52

DATE: 5-24-02 | SHT. NO. 119 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-52 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/24/02 16:02 JCH

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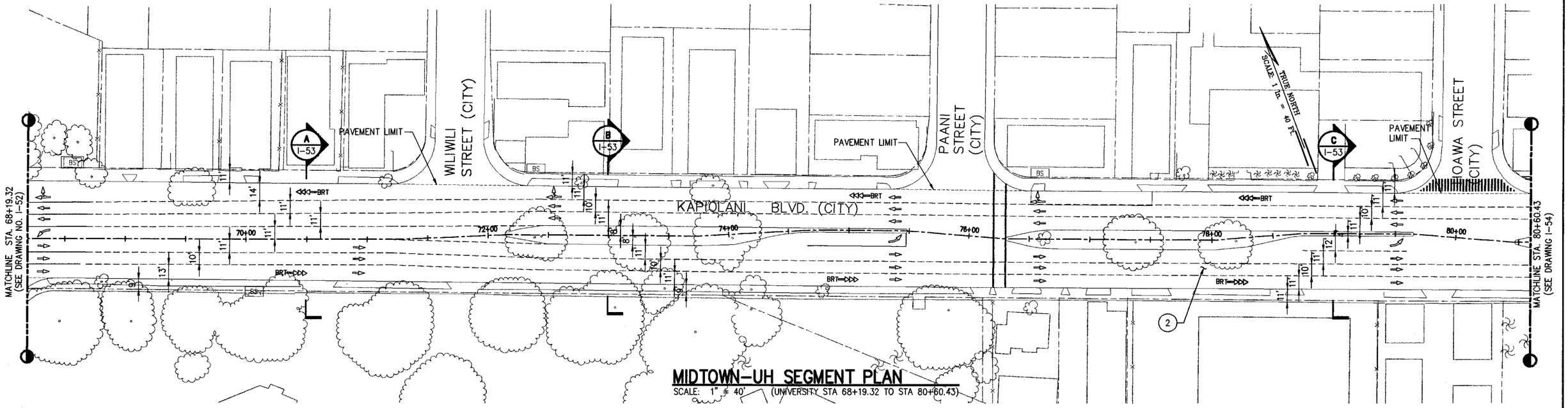
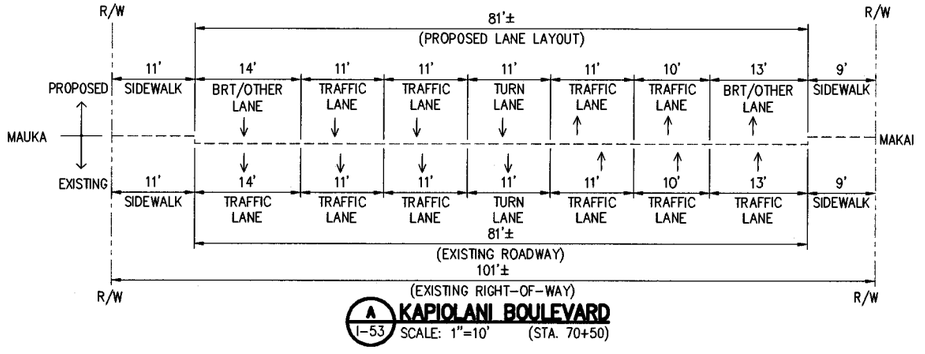
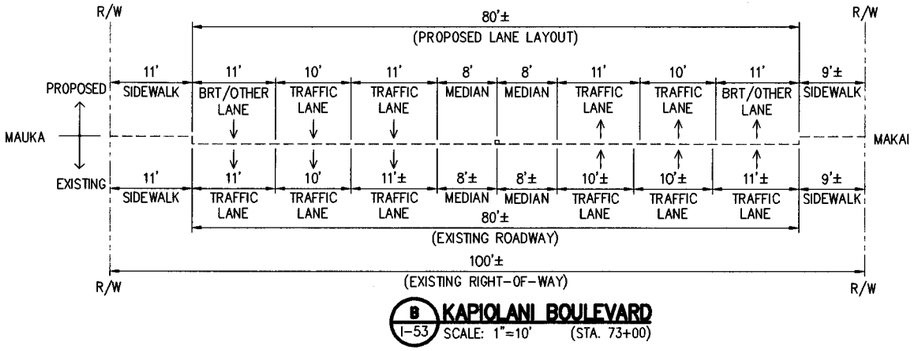


MIDTOWN–UH SEGMENT PLAN

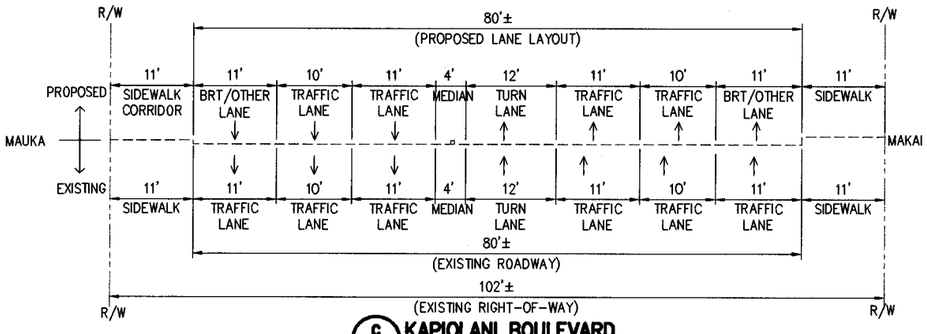
SCALE: 1" = 40' (UNIVERSITY STA 68+19.32 TO STA 80+60.43)



A I-53 KAPIOLANI BOULEVARD
SCALE: 1"=10' (STA. 70+50)



B I-53 KAPIOLANI BOULEVARD
SCALE: 1"=10' (STA. 73+00)



C I-53 KAPIOLANI BOULEVARD
SCALE: 1"=10' (STA. 79+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE DR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN–TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN–UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I–53

DATE: 5–24–02 SHT. NO. 120 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B–MIDTOWN–UH SEGMENT\I–53 MIDTOWN–UH SEGMENT PLAN AND SECTIONS.DWG 11/18/01 10:09 DaY

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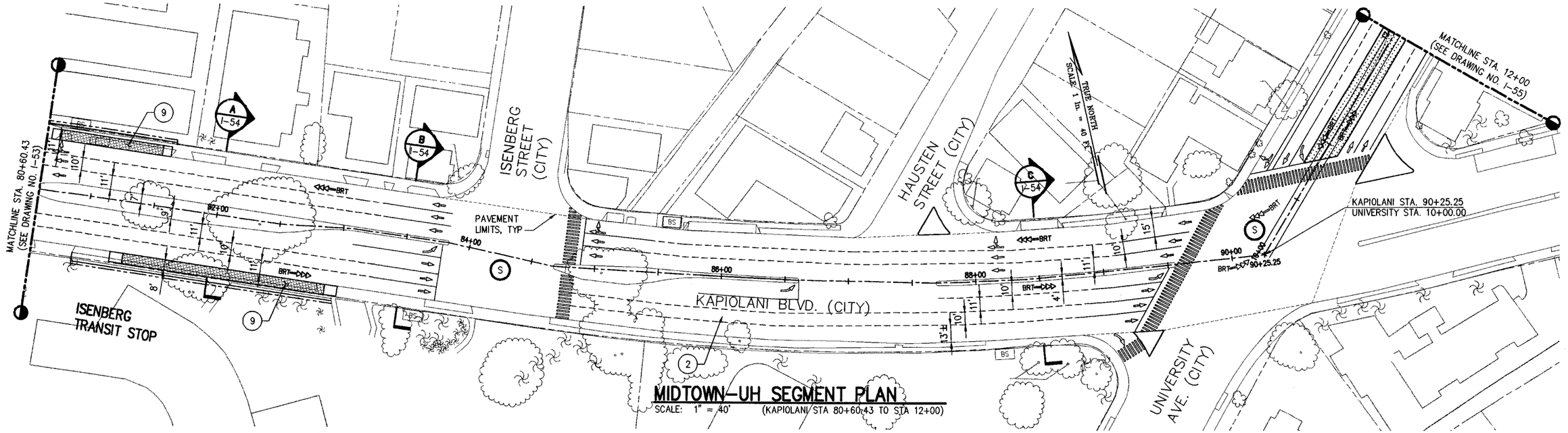
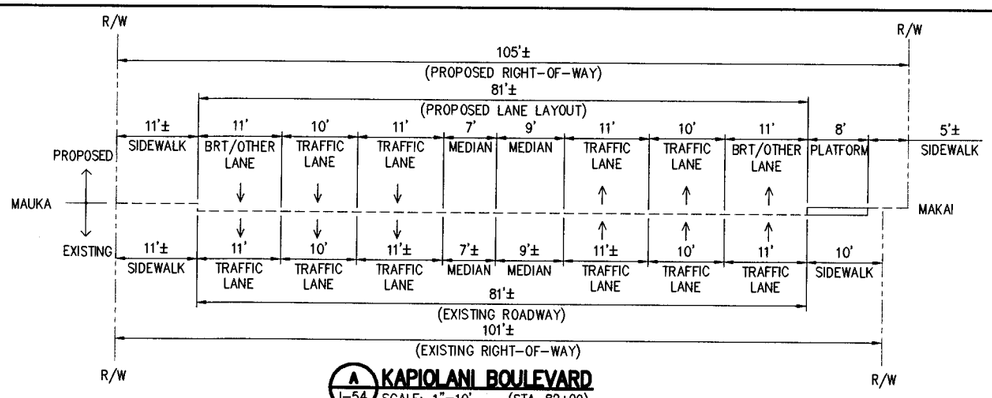
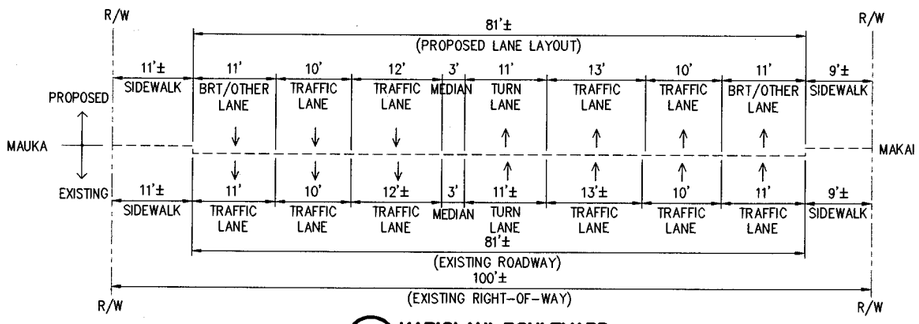
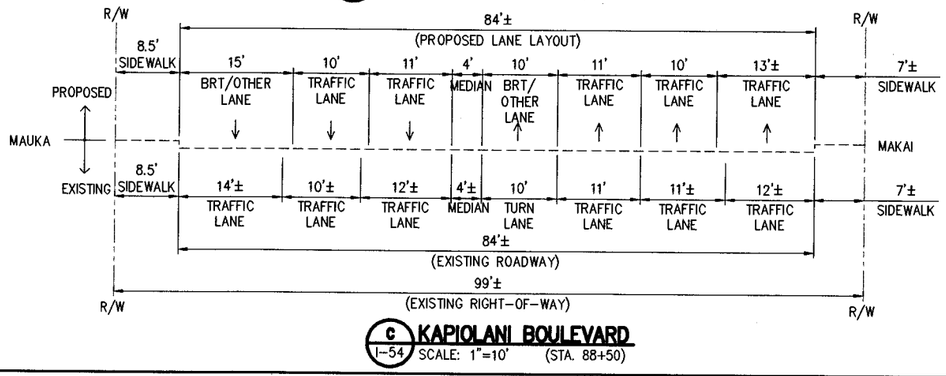


MIDTOWN-UH SEGMENT PLAN

SCALE: 1" = 40' (KAPIOLANI/STA 80+60.43 TO STA 12+00)







CONSTRUCTION NOTES

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2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
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5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/DR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
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12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
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15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

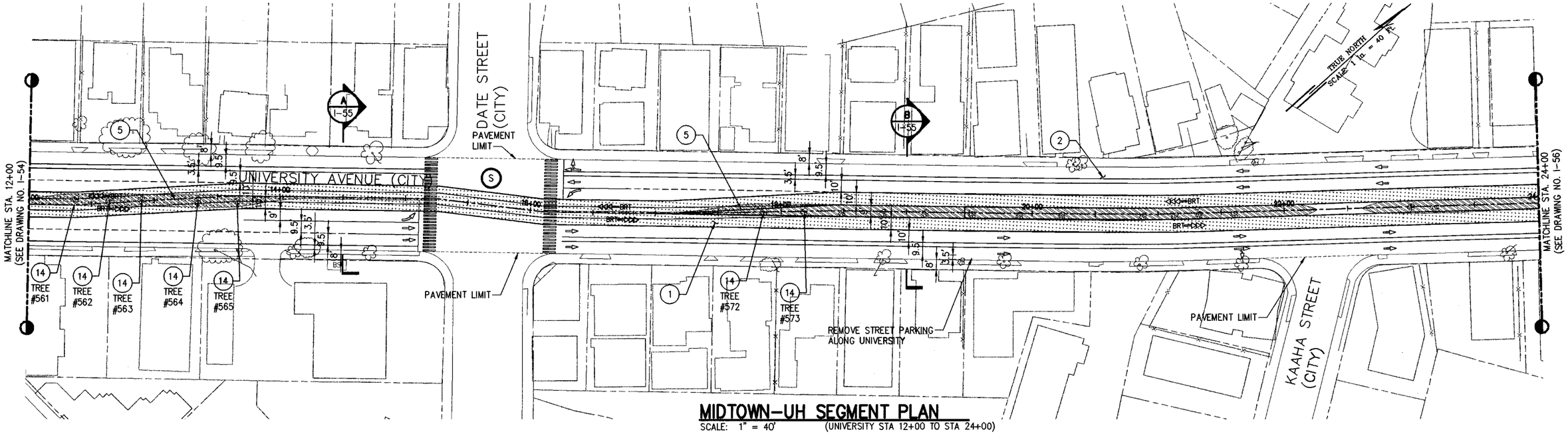
IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-54

DATE: 5-24-02 SHT. NO. 121 OF 142

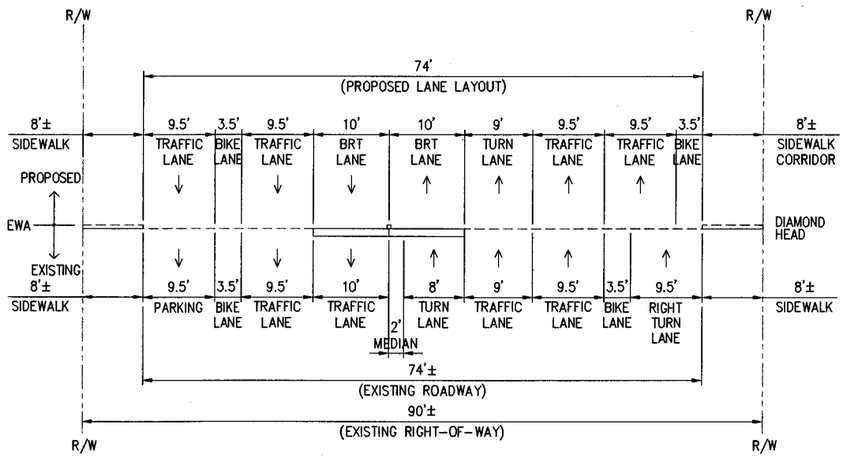
I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-54 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/21/02 15:40 JCH

AR00016574

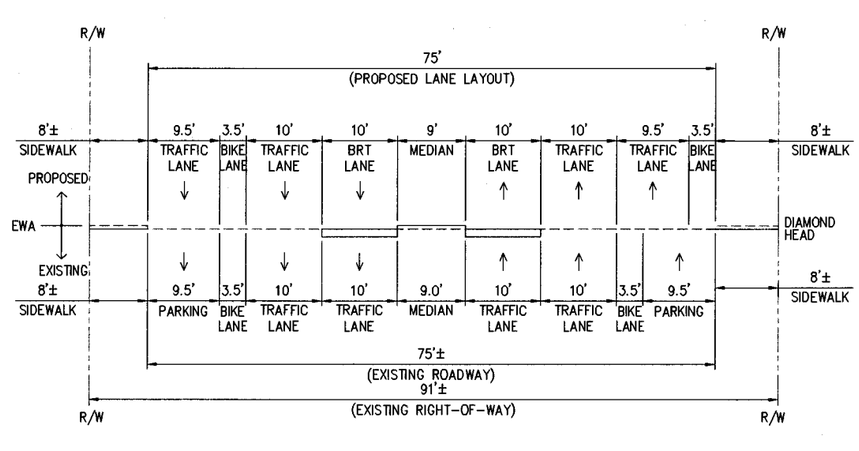


MIDTOWN-UH SEGMENT PLAN

SCALE: 1" = 40' (UNIVERSITY STA 12+00 TO STA 24+00)



A UNIVERSITY AVENUE
I-55 SCALE: 1"=10' (STA. 14+50)



B UNIVERSITY AVENUE
I-55 SCALE: 1"=10' (STA. 19+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-55

DATE: 5-24-02 | SHT. NO. 122 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-55 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/21/02 16:03 JCH

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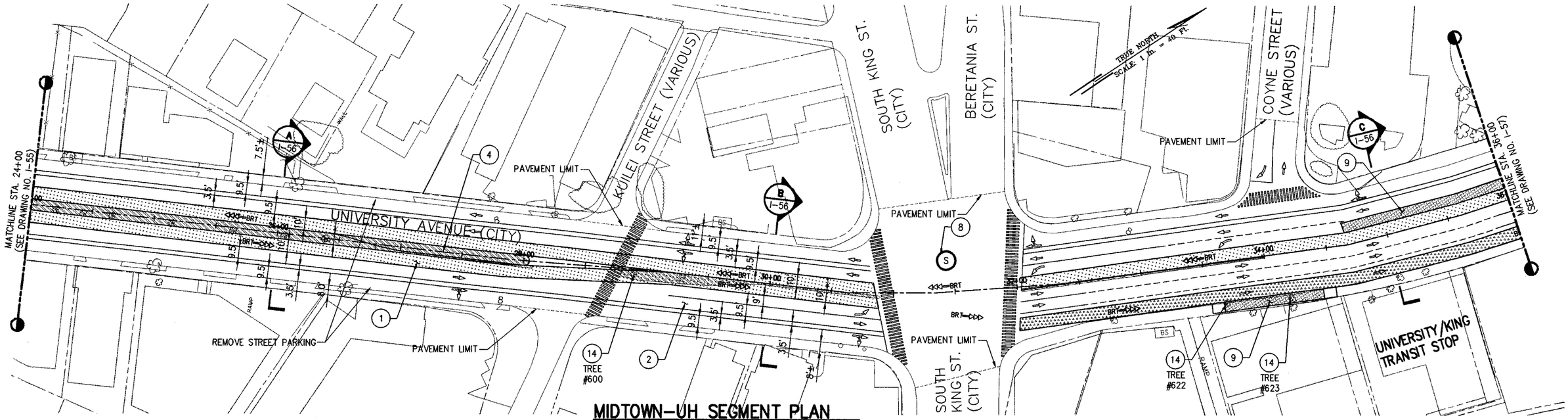
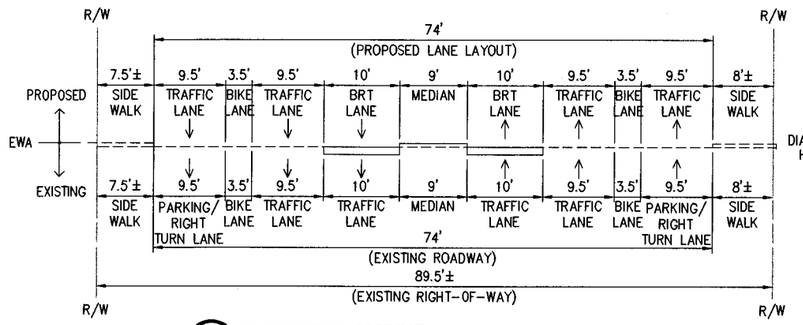
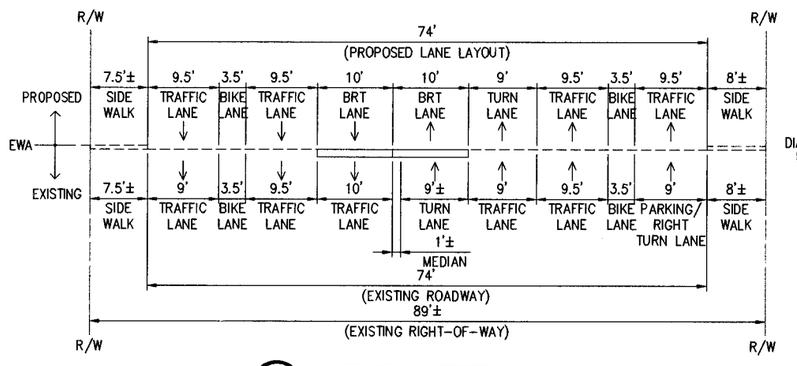


MIDTOWN–UH SEGMENT PLAN

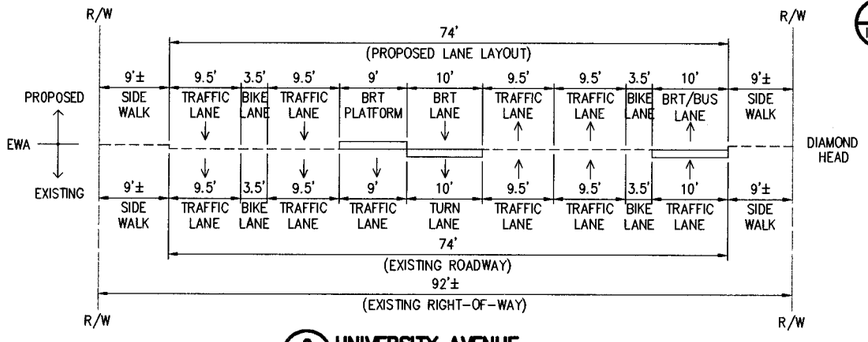
SCALE: 1" = 40' (UNIVERSITY STA. 24+00 TO STA 36+00)



A UNIVERSITY AVENUE I-56 SCALE: 1"=10' (STA. 26+00)



B UNIVERSITY AVENUE I-56 SCALE: 1"=10' (STA. 30+00)



C UNIVERSITY AVENUE I-56 SCALE: 1"=10' (STA. 35+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN–UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-56

DATE: 5-24-02 SHT. NO. 123 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-56 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/20/02 13:39 JCH

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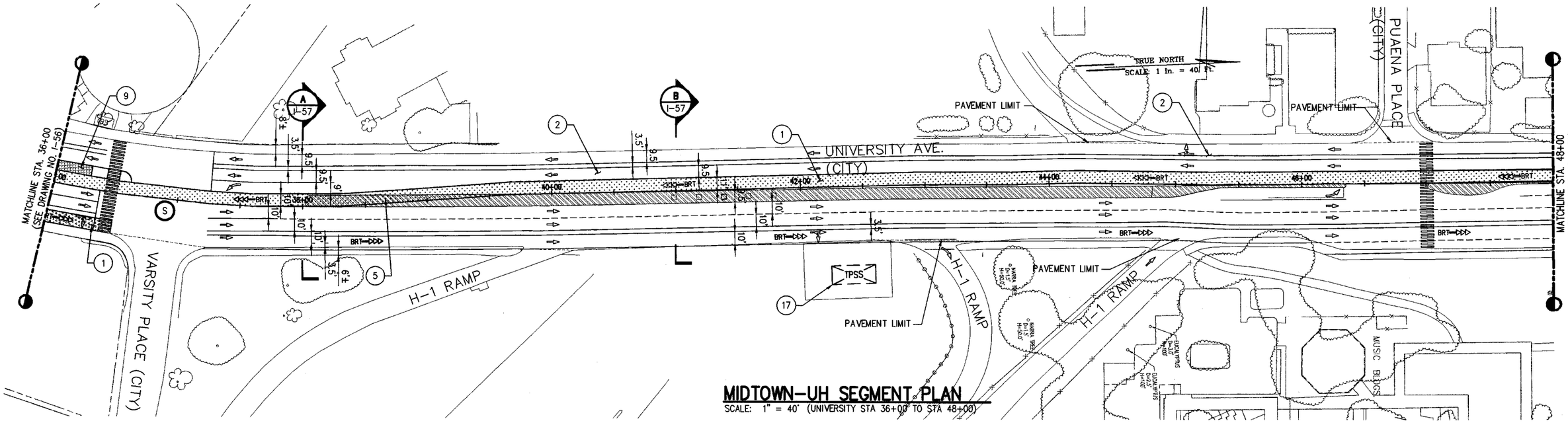
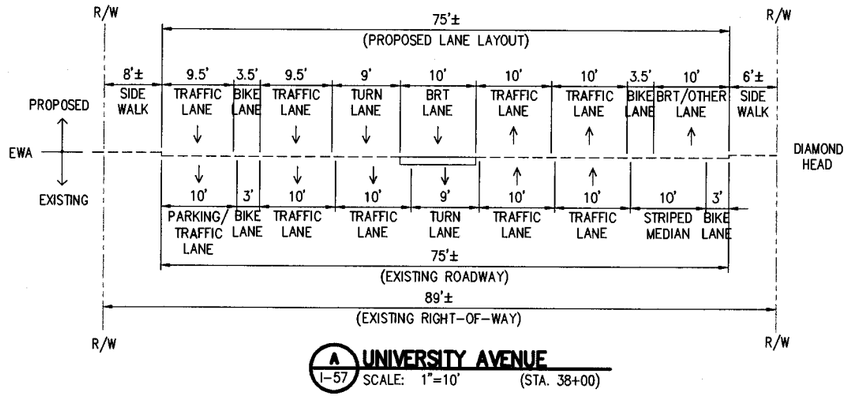
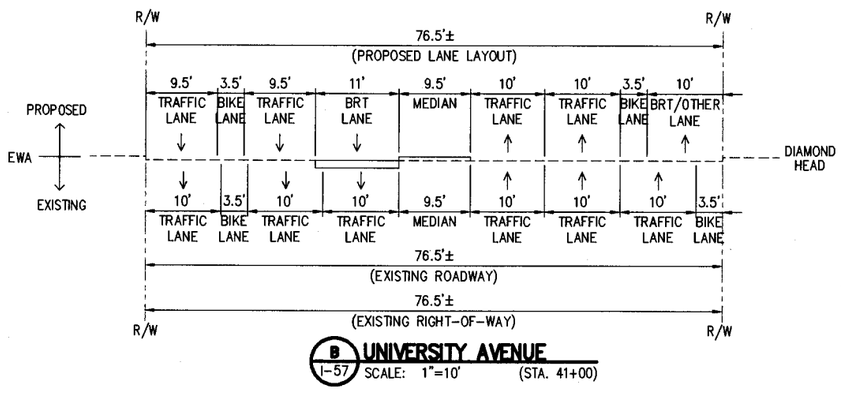


MIDTOWN–UH SEGMENT PLAN

SCALE: 1" = 40' (UNIVERSITY STA 36+00 TO STA 48+00)



A I-57 **UNIVERSITY AVENUE**
SCALE: 1"=10' (STA. 38+00)



B I-57 **UNIVERSITY AVENUE**
SCALE: 1"=10' (STA. 41+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN–UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-57

DATE:10-23-02 SHT. NO. 124 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-57 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 07/06/02 20:15 WGH

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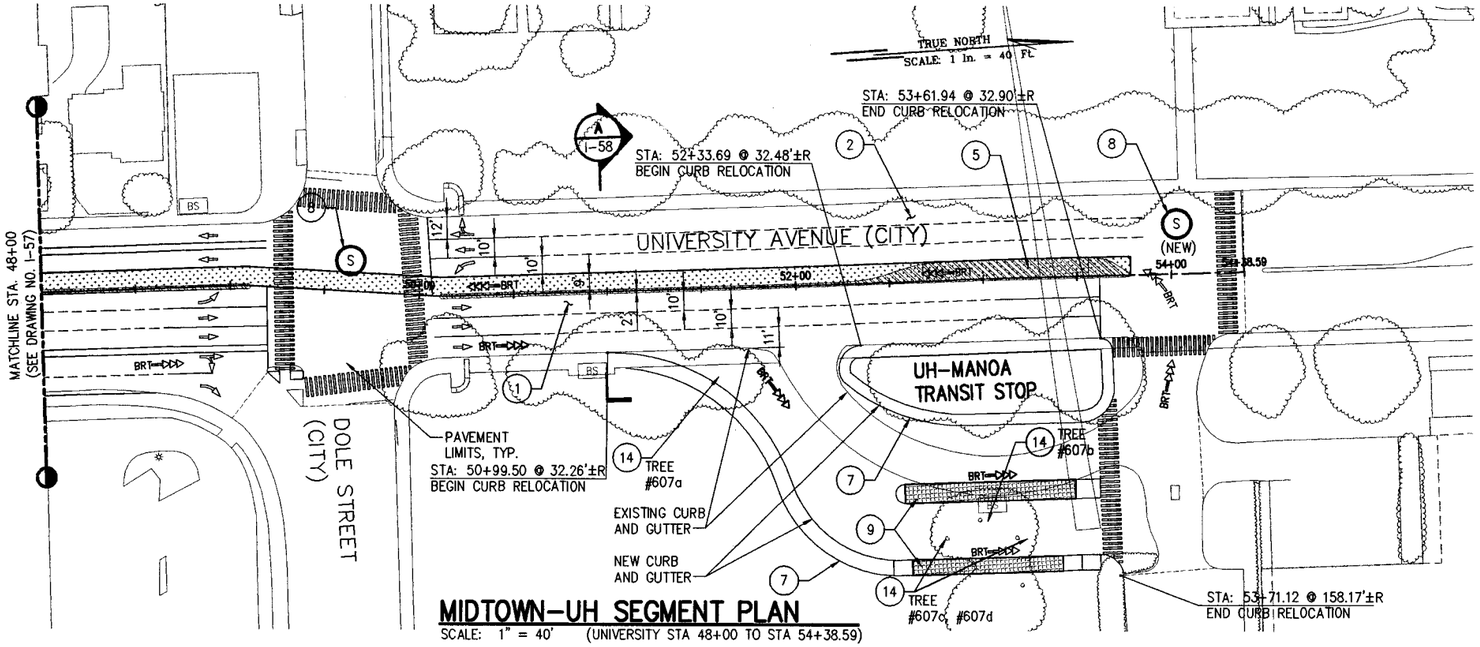
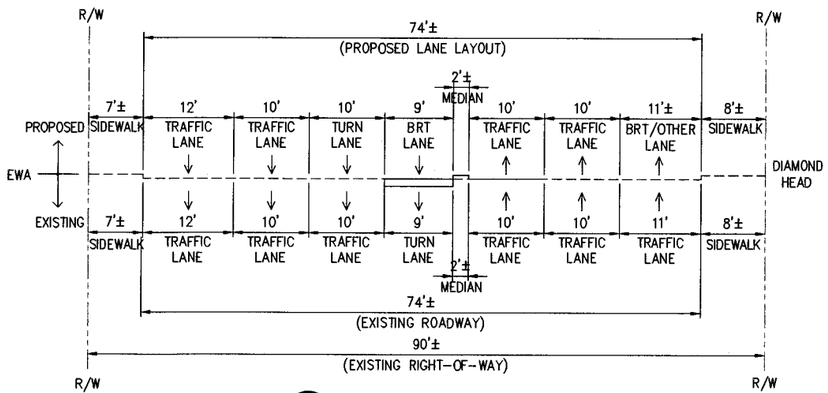


MIDTOWN-UH SEGMENT PLAN

SCALE: 1" = 40' (UNIVERSITY STA 48+00 TO STA 54+38.59)



A I-58 **UNIVERSITY AVENUE**
SCALE: 1"=10' (STA. 51+00)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION (TPSS)
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP (BS)
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDTOWN-UH SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-58

DATE: 5-24-02 SHT. NO. 125 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\B-MIDTOWN-UH SEGMENT\I-58 MIDTOWN-UH SEGMENT PLAN AND SECTIONS.DWG 05/28/02 16:23 JCH

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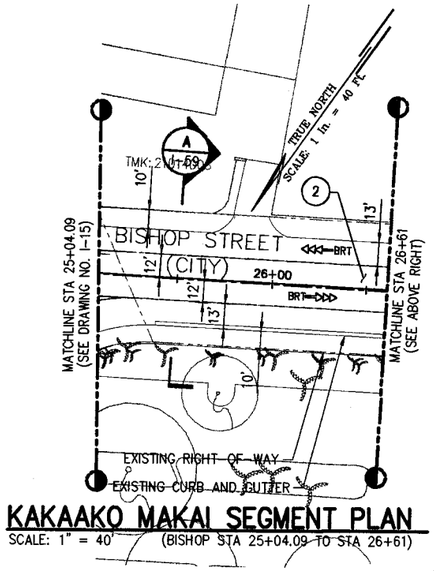
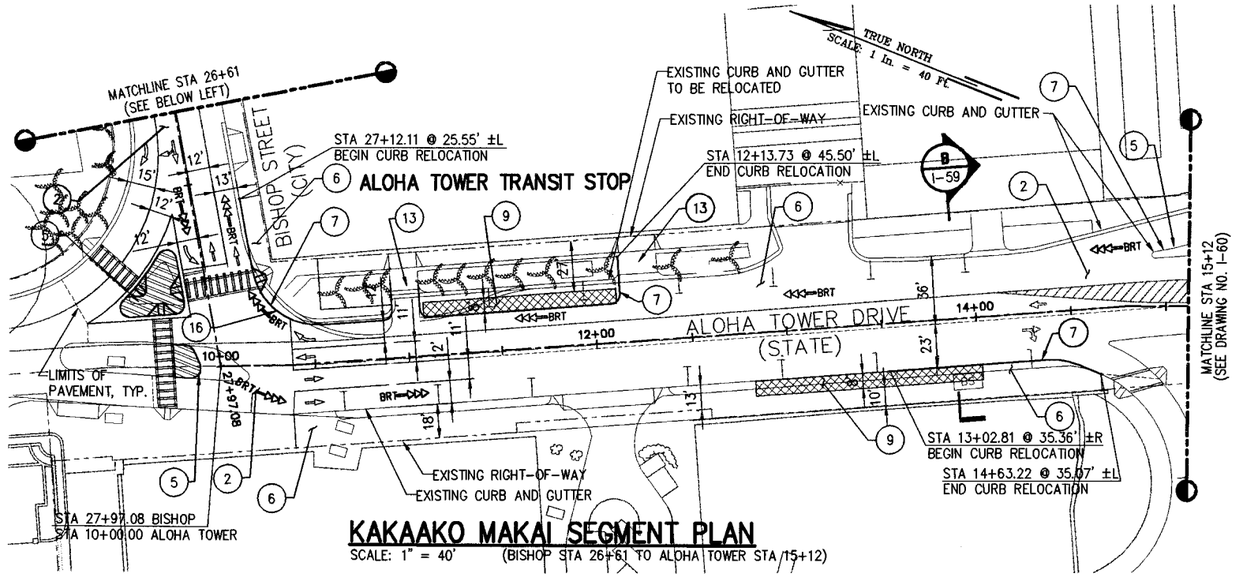


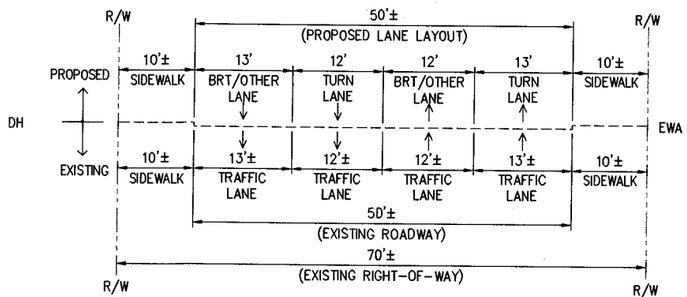
KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (BISHOP STA 25+04.09 TO STA 26+61)



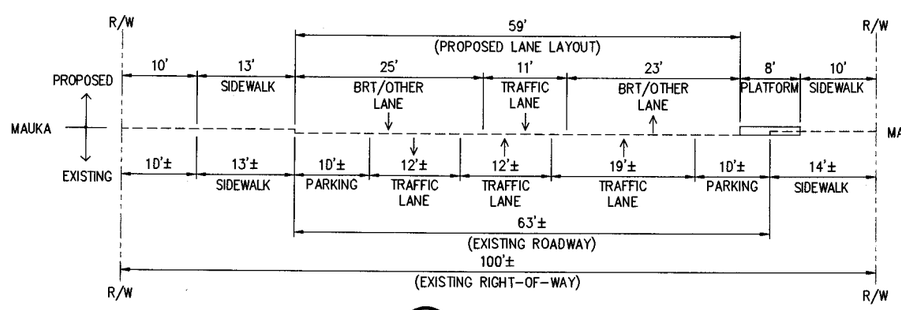
KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (BISHOP STA 26+61 TO ALOHA TOWER STA 15+12)



A I-59 BISHOP STREET

SCALE: 1"=10' (STA 25+50)



B I-59 ALOHA TOWER DRIVE

SCALE: 1"=10' (STA 13+89)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PRDVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMDVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KAKAAKO MAKAI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-59

DATE: 5-24-02 SHT. NO. 126 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-59-KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/28/02 13:09 JCH

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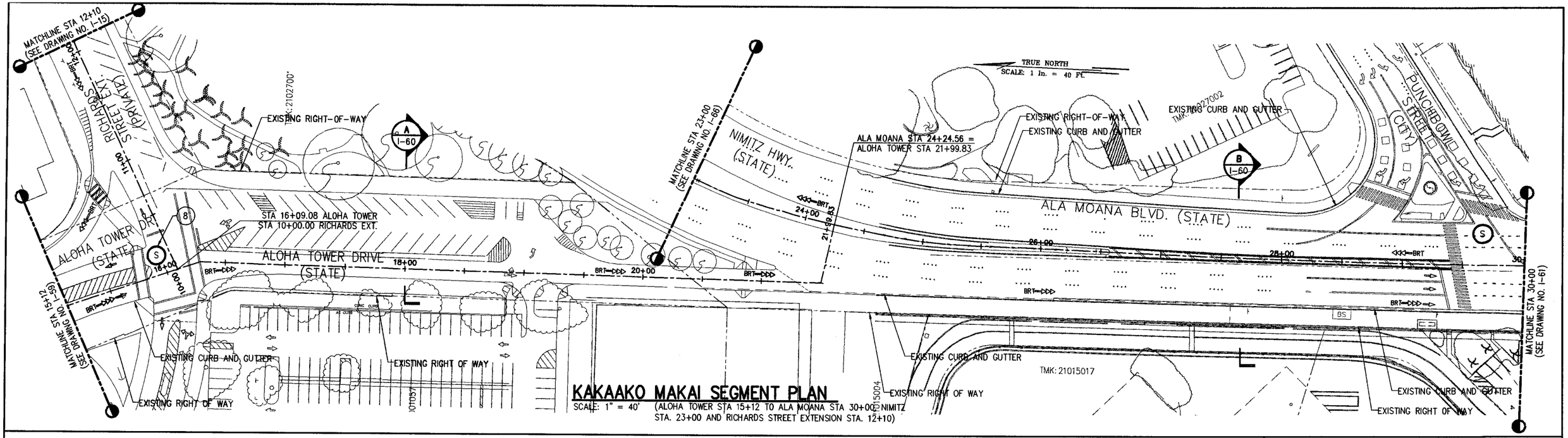
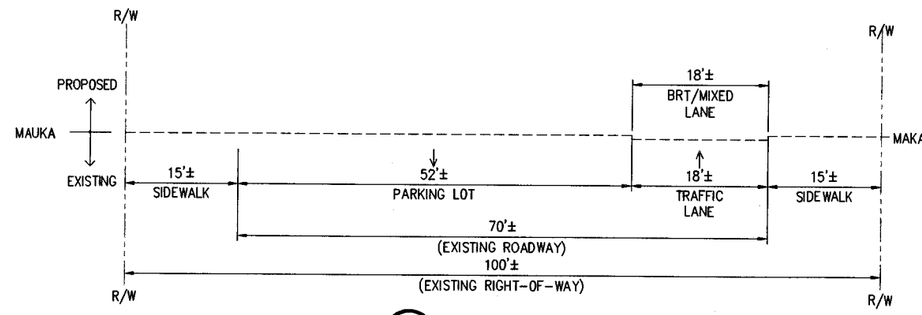
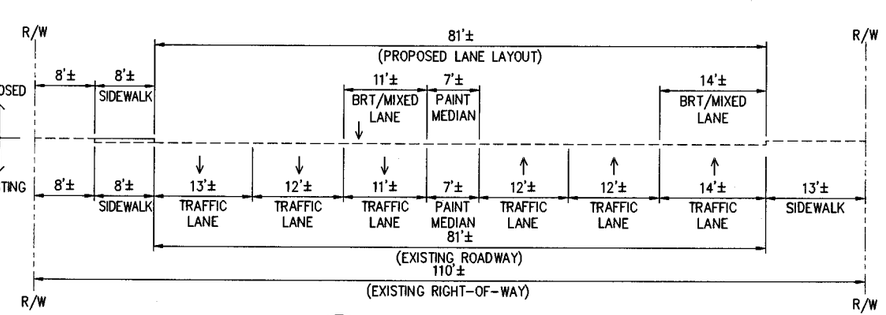


KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (ALOHA TOWER STA 15+12 TO ALA MOANA STA 30+00, NIMITZ STA. 23+00 AND RICHARDS STREET EXTENSION STA. 12+10)



A I-60 **ALOHA TOWER DRIVE**
SCALE: 1"=10' (STA 18+00)



B I-60 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 27+65)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/DR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KAKAAKO MAKAI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-60

DATE: 5-24-02 | SHT. NO. 127 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKD SEGMENT\I-60 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/09/02 21:14 wgh

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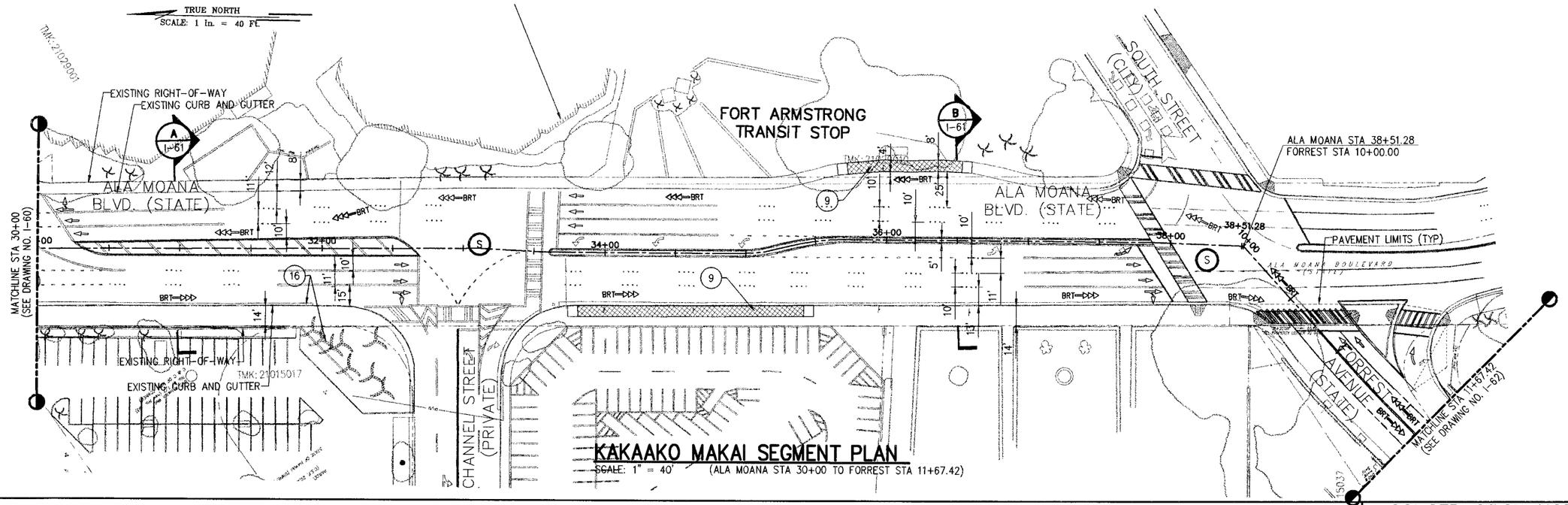
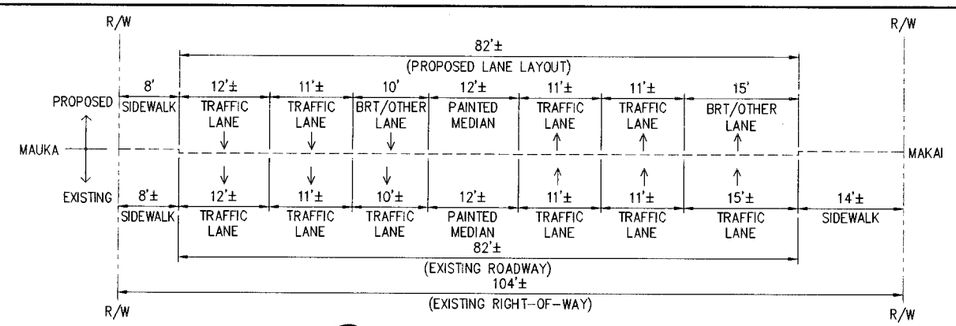
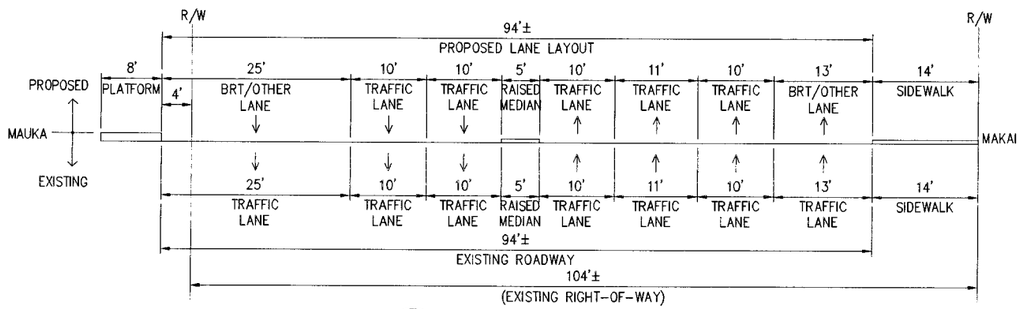


KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (ALA MOANA STA 30+00 TO FORREST STA 11+67.42)



A I-61 **ALA MOANA BOULEVARD**
SCALE: 1"=10' (STA 30+97)



B I-61 **CHANNEL ST EXTENSION**
SCALE: 1"=10' (STA 16+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT) KAKAAKO MAKAI SEGMENT PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-61

DATE:10-23-02 SHT. NO. 128 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-61 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 07/06/02 20:17 WGH

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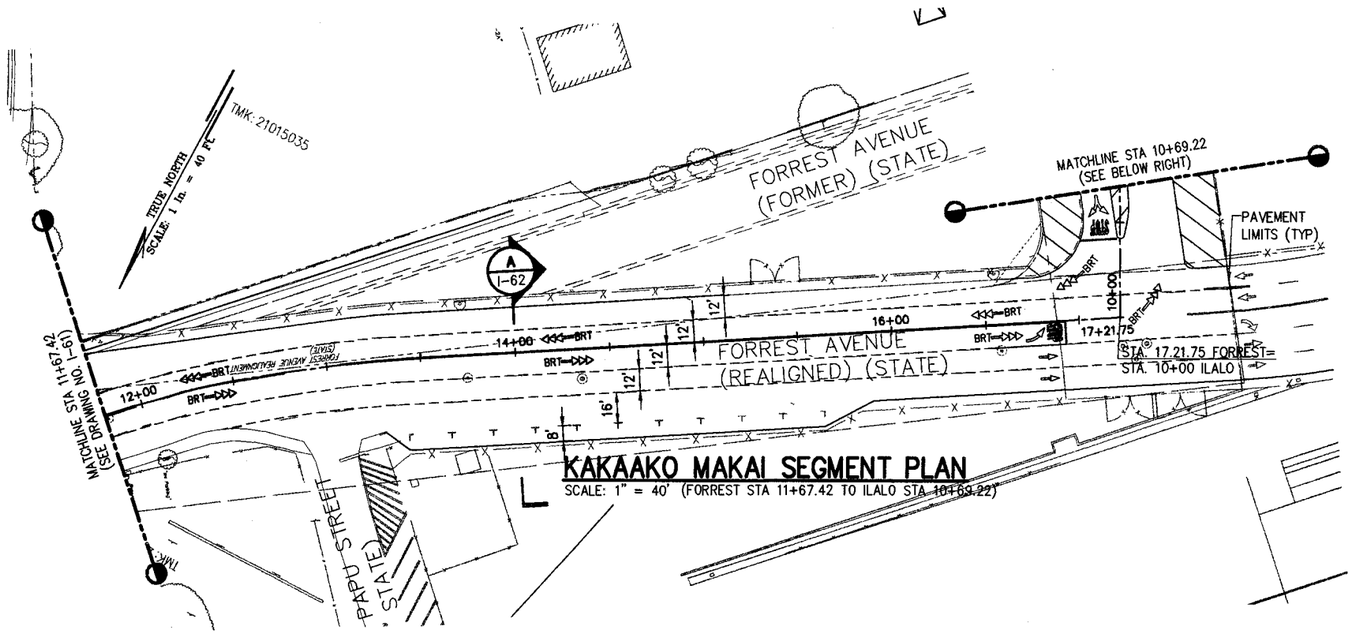
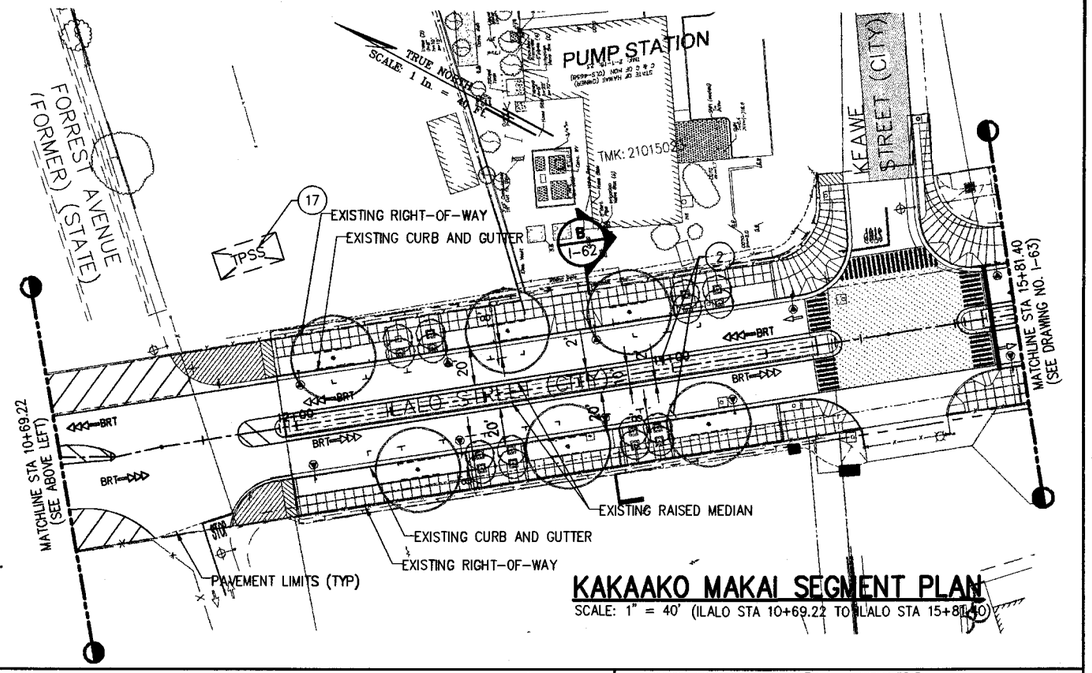
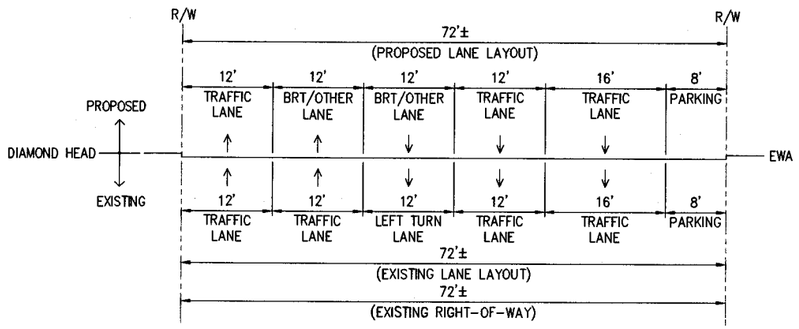
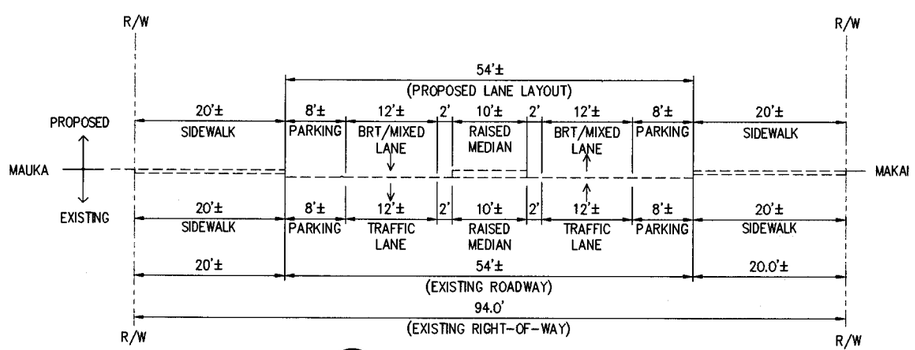






A I-62 **FORREST AVENUE (REALIGNMENT)**
SCALE: 1"=10' (STA 14+00)



B I-62 **ILALO STREET**
SCALE: 1"=10' (STA 13+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
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- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- ADA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KAKAAKO MAKAI SEGMENT
PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-62

DATE: 5-24-02 | SHT. NO. 129 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-62 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/24/02 08:53 JCH

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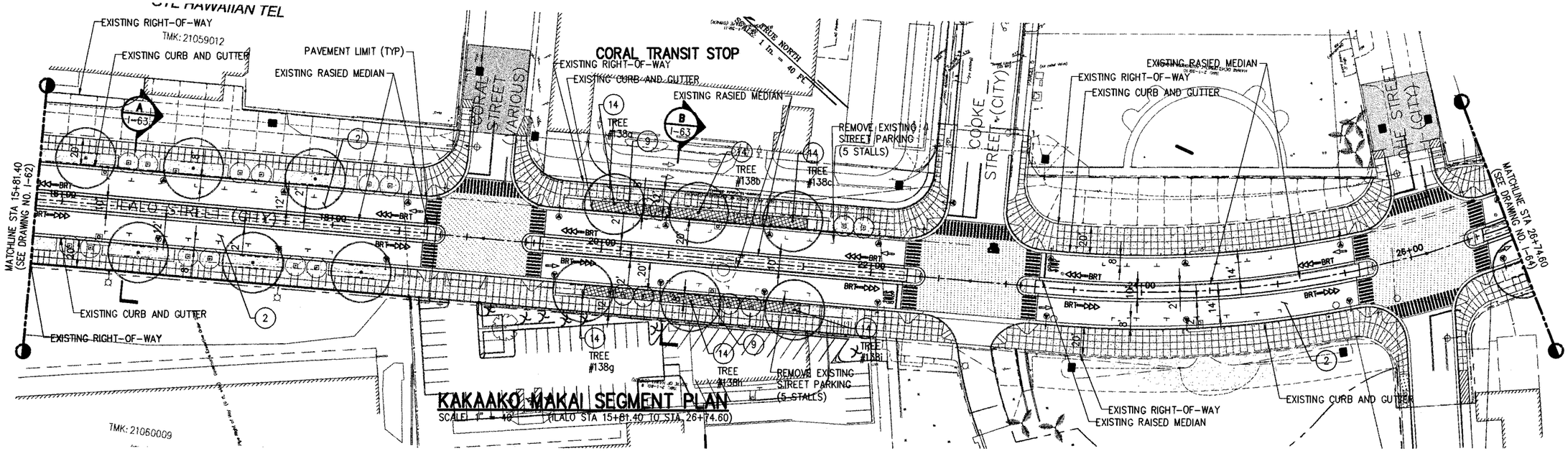

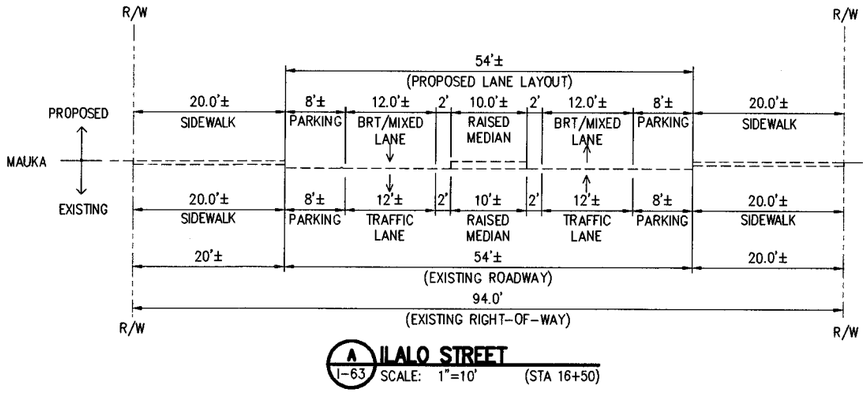

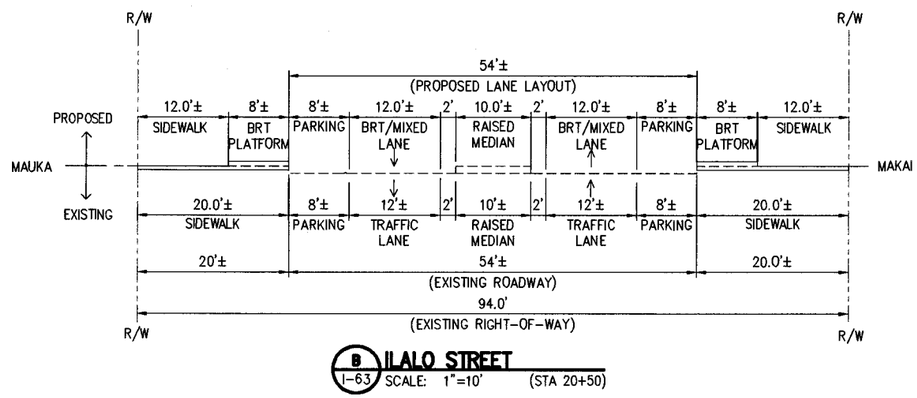

CONSTRUCTION NOTES

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9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TRACTION POWER SUPPLY STATION
- BRT ROUTE
- AOA CURB RAMP
- BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
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DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1" = 40' 40' 20' 0 40' 80'
1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KAKAAKO MAKAI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-63

DATE: 5-24-02 | SHT. NO. 130 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-63 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/20/02 11:47 JCH

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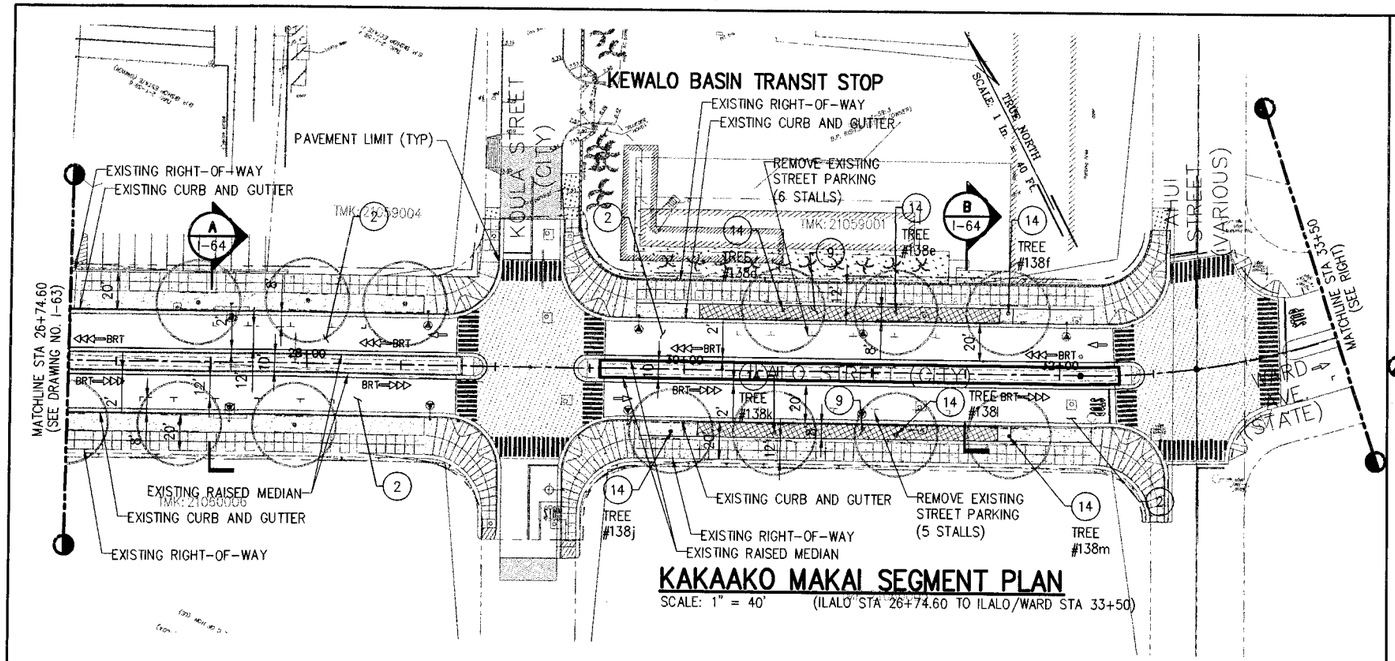
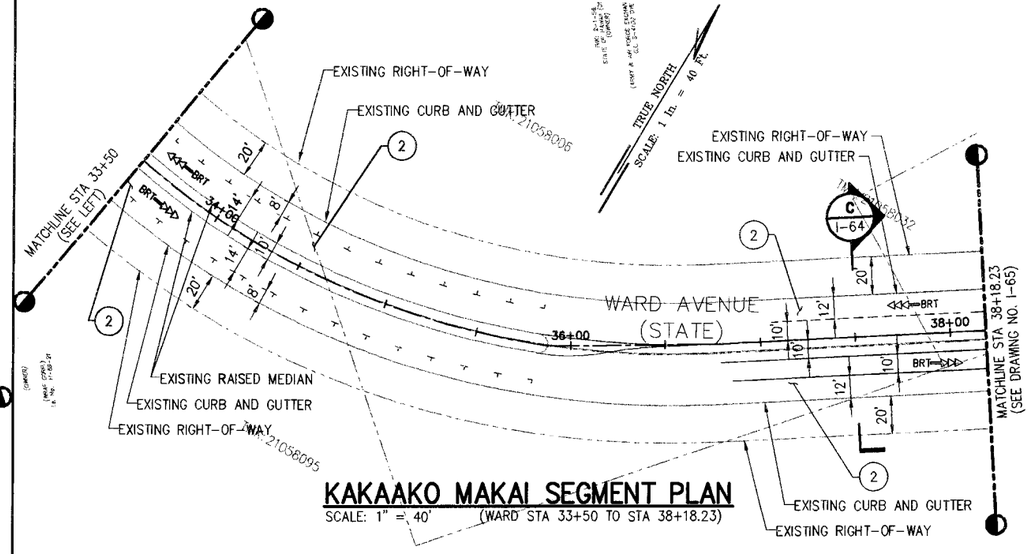


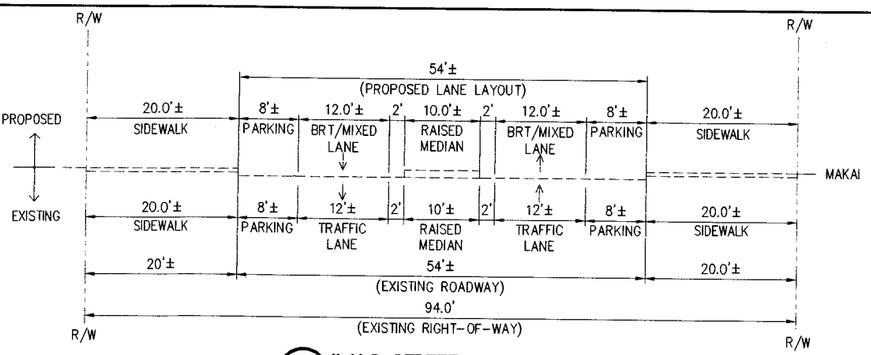
KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (ILALO STA 26+74.60 TO ILALO/WARD STA 33+50)



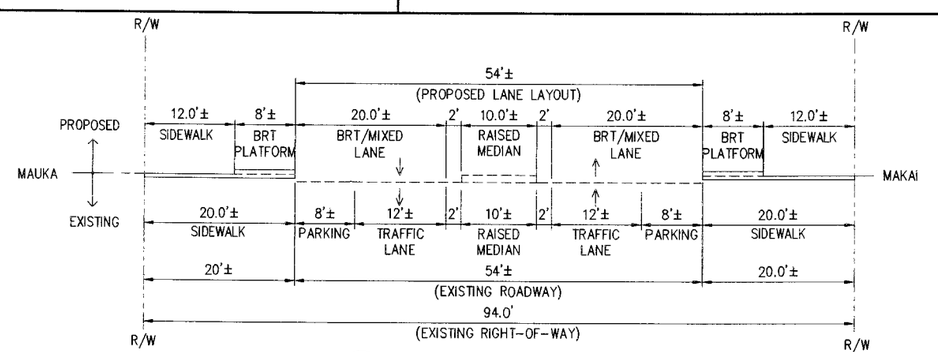
KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (WARD STA 33+50 TO STA 38+18.23)



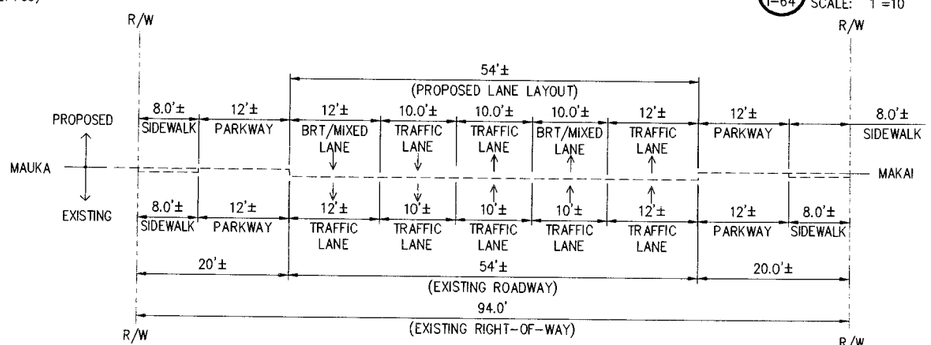
A ILALO STREET

I-64 SCALE: 1"=10' (STA 27+50)



B ILALO STREET

I-64 SCALE: 1"=10' (STA 31+50)



C WARD AVENUE

I-64 SCALE: 1"=10' (STA 37+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
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5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
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16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION (S)
- TRACTION POWER SUPPLY STATION (TPSS)
- BRT ROUTE (BRT)
- ADA CURB RAMP
- BUS STOP (BS)
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

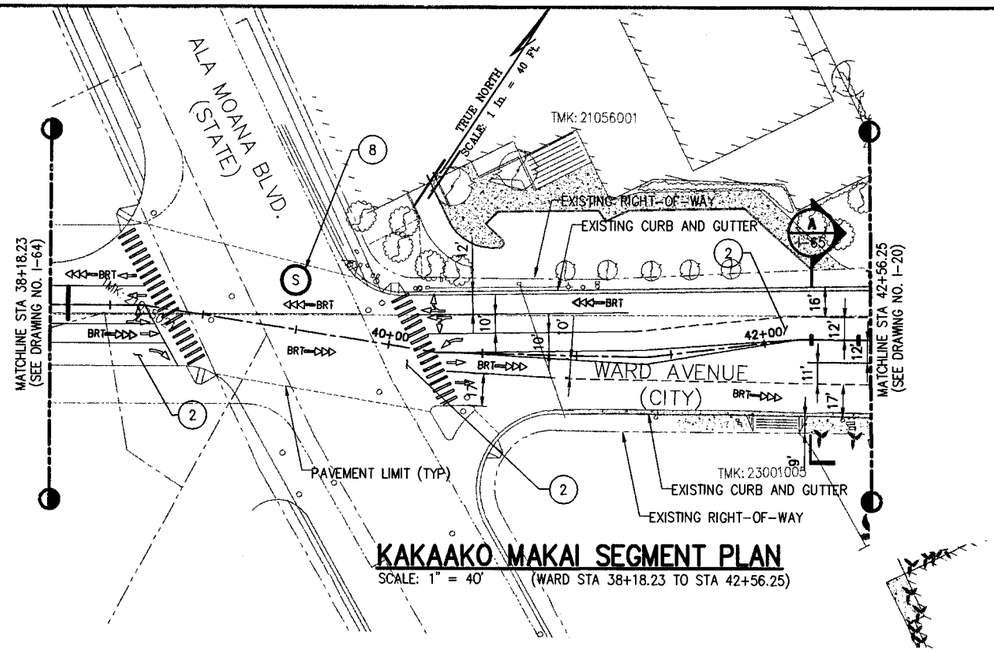
IN-TOWN BUS RAPID TRANSIT (BRT) KAKAAKO MAKAI SEGMENT PRELIMINARY ENGINEERING PLAN AND CROSS SECTIONS

DRAWING NO. I-64

DATE: 5-24-02 SHT. NO. 131 OF 142

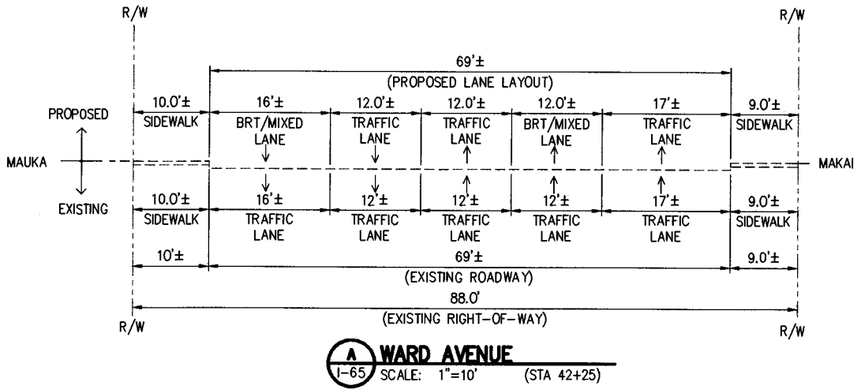
I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-64 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/20/02 11:47 JCH

AR00016584



KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40' (WARD STA 38+18.23 TO STA 42+56.25)



A / I-65 WARD AVENUE

SCALE: 1"=10' (STA 42+25)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
8. MODIFY EXISTING BRT INTERSECTION TRAFFIC SIGNAL CONTROLS FOR BRT COMPLETE. CONSTRUCT NEW BRT TRAFFIC SIGNAL CONTROLS WHEN NOTED AS NEW.
9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- (S) SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KAKAAKO MAKAI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-65

DATE: 5-24-02 | SHT. NO. 132 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-65-KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/20/02 11:57 JCH

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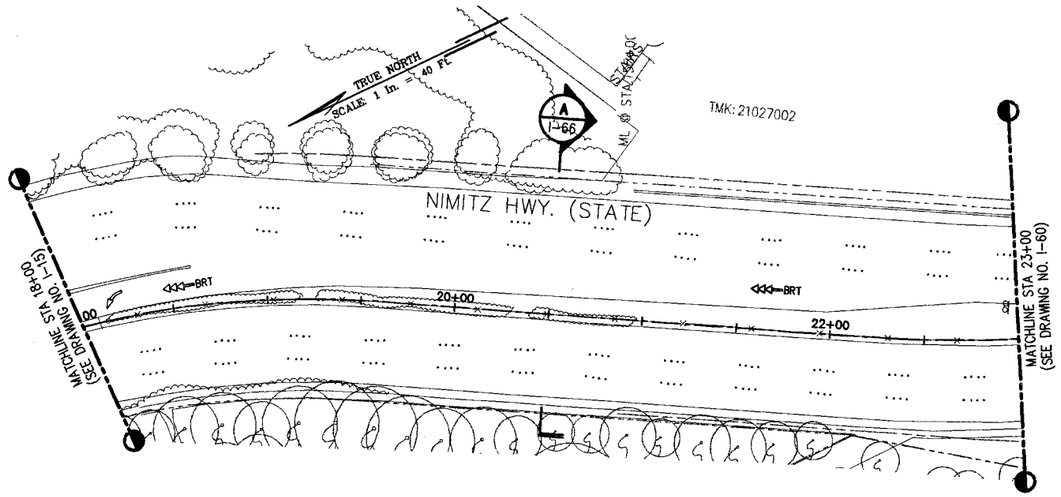
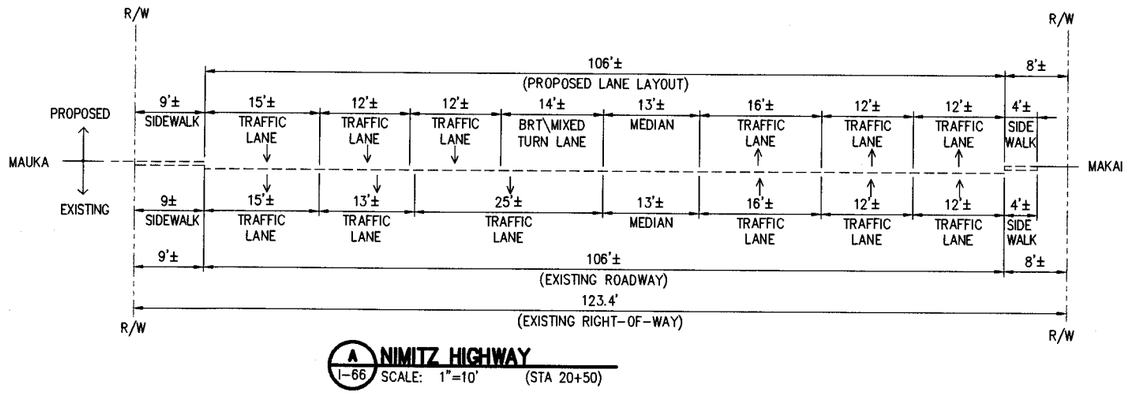


KAKAAKO MAKAI SEGMENT PLAN

SCALE: 1" = 40'-0" (NIMITZ HWY. STA 18+00 TO 23+00)



A I-66 NIMITZ HIGHWAY
SCALE: 1"=10' (STA 20+50)

CONSTRUCTION NOTES

1. PROVIDE 12" THICK PCC PAVEMENT AT EXCLUSIVE AND SEMI EXCLUSIVE BRT LANES, 6" ROUND PAVEMENT DELINEATORS FOR EXCLUSIVE BRT LANES AND MOUNTABLE AC CURB BETWEEN ADJACENT BRT LANES.
2. RECONSTRUCT, REPAIR, OR REPAVE EXISTING PAVEMENT AS REQUIRED PER C&C/STATE DOT STANDARDS. SLURRY SEAL REMAINING PAVEMENT TO MATCH.
3. PROVIDE NEW AC PAVEMENT. STRIPE AS SHOWN
4. PROVIDE NEW RAISED MEDIAN
5. MODIFY/REMOVE EXISTING RAISED MEDIAN AS SHOWN. PROVIDE AC AND/OR CONCRETE PAVEMENT AS SHOWN
6. PROVIDE NEW SIDEWALK AS SHOWN
7. RELOCATE OR PROVIDE NEW CURB, GUTTER AND SIDEWALK AS SHOWN. REPLACE AC PAVEMENT IN KIND AND RELOCATE UTILITIES AS NEEDED.
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9. PROVIDE NEW 13" HIGH BRT PLATFORM AS SHOWN WITH 12" THICK PCC BUS PAD. PLATFORM TO INCLUDE ALL APPLICABLE APPURTANCES
10. PROVIDE BRT STATION VEHICLE BARRIER/PLANTER (SEE DET. 1/DT-3)
11. PROVIDE BUS BAY COMPLETE WITH 12" THICK PCC BUS PAD, BUS SHELTER, APPURTENANCES, AND SIDEWALK
12. REMOVE EXISTING BUS STOP COMPLETE
13. RECONSTRUCT EXISTING DRIVEWAY
14. RELOCATE EXISTING TREE
15. REMOVE/REPLACE EXISTING TREE
16. PROVIDE NEW DRAINAGE CATCH BASIN AND LATERAL CONNECTION
17. PROVIDE 2KV ELECTRICAL SUBSTATION COMPLETE IN AREA SHOWN
18. RELOCATE EXISTING BUS STOP

LEGEND

- EXCLUSIVE BRT LANE
- SEMI-EXCLUSIVE BRT/BUS LANE
- BRT PLATFORM
- RAISED MEDIAN
- SIGNALIZED INTERSECTION
- TPSS TRACTION POWER SUPPLY STATION
- BRT BRT ROUTE
- ADA CURB RAMP
- BS BUS STOP
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- EXISTING SIDEWALK
- NEW SIDEWALK
- BRT CENTERLINE
- EXISTING CURB AND GUTTER
- NEW CURB AND GUTTER
- PAVEMENT/SLURRY LIMITS
- MOUNTABLE AC CURB

DISCLAIMER

THE EXISTING TOPOGRAPHICAL, ABOVE AND BELOW GROUND UTILITY LINES AND TREES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES OR TREES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

1" = 10' 10' 5' 0 10' 20'

IN-TOWN BUS RAPID TRANSIT (BRT)
KAKAAKO MAKAI SEGMENT
PRELIMINARY ENGINEERING PLAN
AND CROSS SECTIONS

DRAWING NO. I-66

DATE: 5-24-02 | SHT. NO. 133 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\C-LOWER KAKAAKO SEGMENT\I-66 KAKAAKO MAKAI ALTERNATIVE PLAN AND SECTIONS.DWG 05/09/02 21:21 wgh

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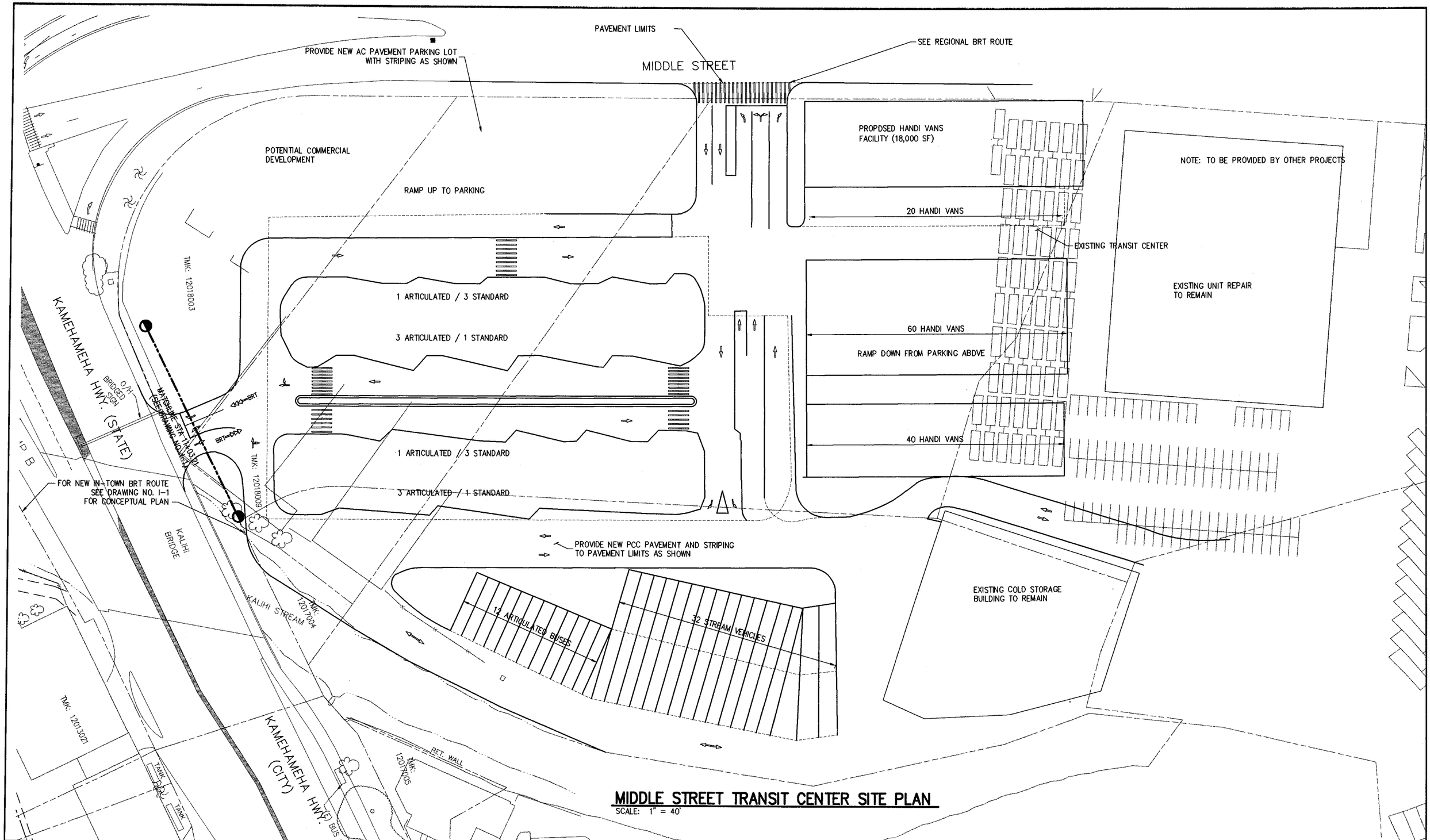

MIDDLE STREET TRANSIT CENTER SITE PLAN

SCALE: 1" = 40'

DISCLAIMER

THE EXISTING TOPDGRAPHICAL AND ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/DR IMPRDVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION DR ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE: 1" = 40'

40' 20' 0 40' 80'

IN-TOWN BUS RAPID TRANSIT (BRT)
MIDDLE STREET TRANSIT CENTER
PRELIMINARY ENGINEERING PLAN

DRAWING NO. TC-1

DATE:10-23-02 SHT. NO. 134 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\TC-01 MIDDLE STREET TRANSIT CENTER PLAN.DWG 08/20/01 11:09 WGH

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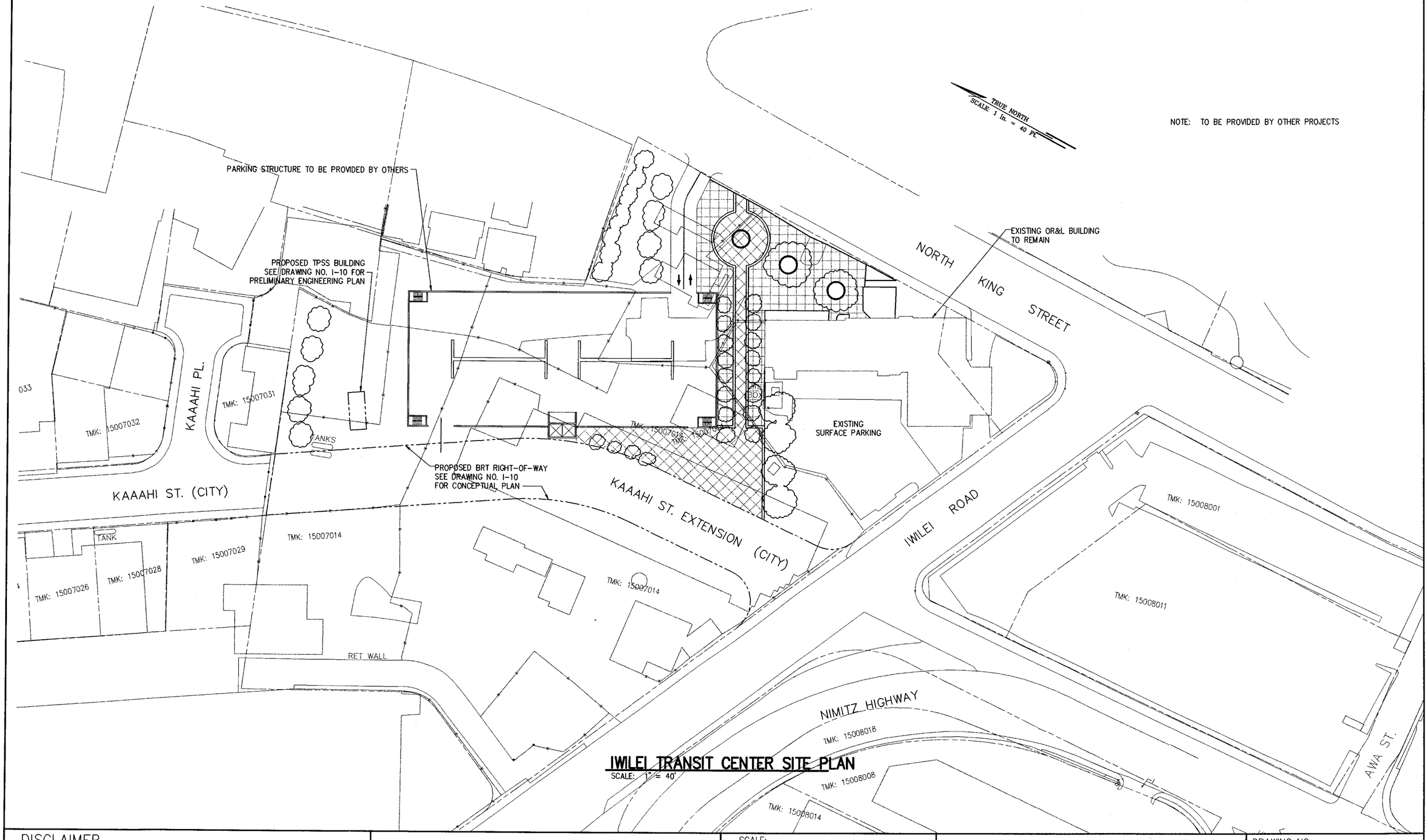

IWILEI TRANSIT CENTER SITE PLAN

SCALE: 1" = 40'

DISCLAIMER

THE EXISTING TOPOGRAPHICAL AND ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

1" = 40' 40' 20' 0 40' 80'

IN-TOWN BUS RAPID TRANSIT (BRT)
IWILEI TRANSIT CENTER
PRELIMINARY ENGINEERING PLAN

DRAWING NO.

TC-2

DATE:10-23-02 | SHT. NO. 135 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\A-KALIHI SEGMENT\TC-02 IWILEI TRANSIT CENTER PLAN.DWG 10/23/02 14:38 WGH

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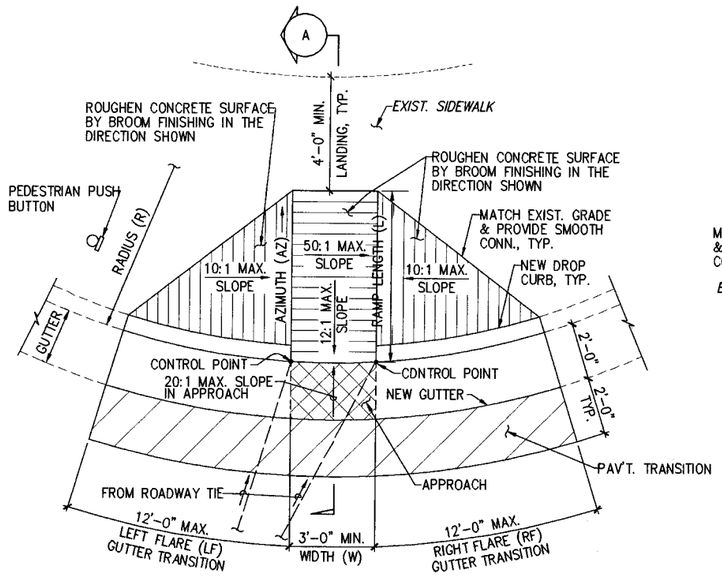
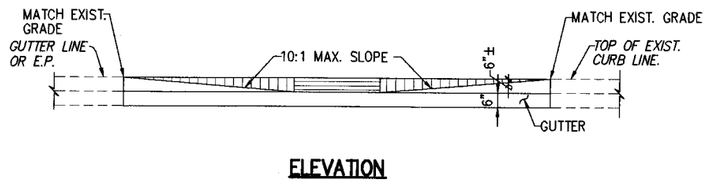


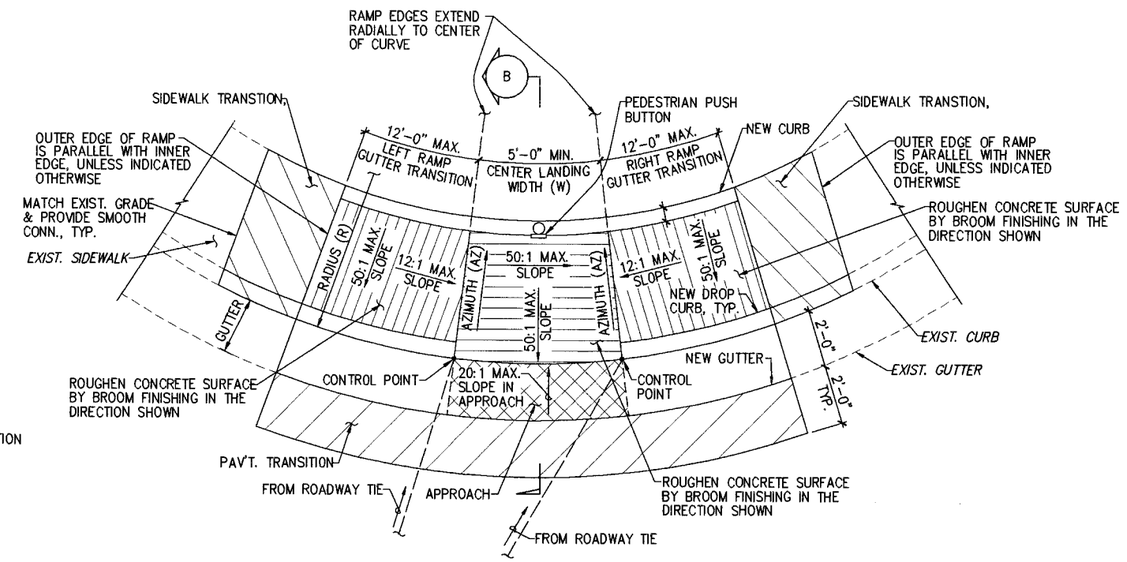
PLAN



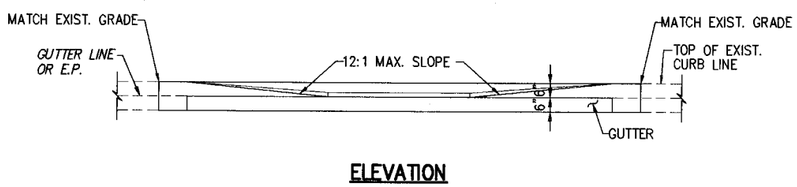
ELEVATION

TYPE A CURB RAMP

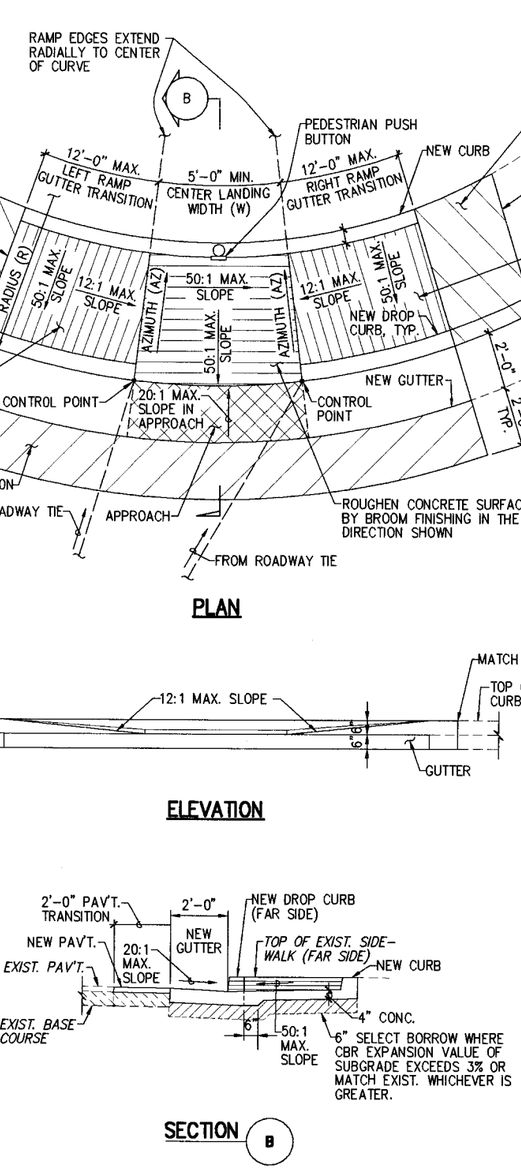
NOT TO SCALE — PERPENDICULAR CURB RAMP ON CURVE



PLAN

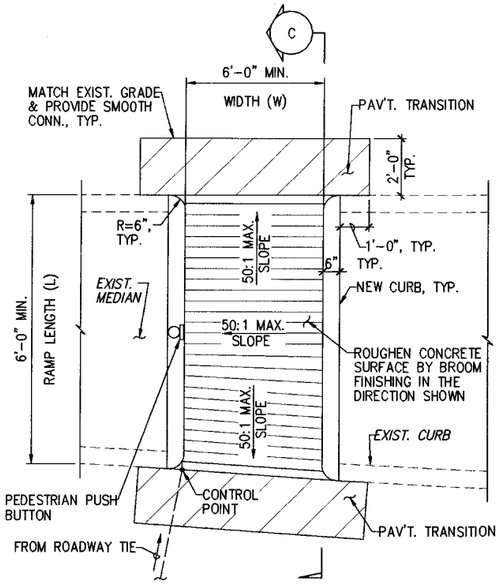


ELEVATION

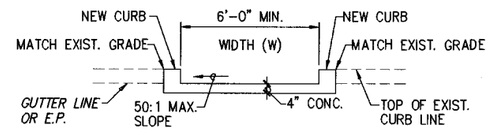


TYPE B CURB RAMP

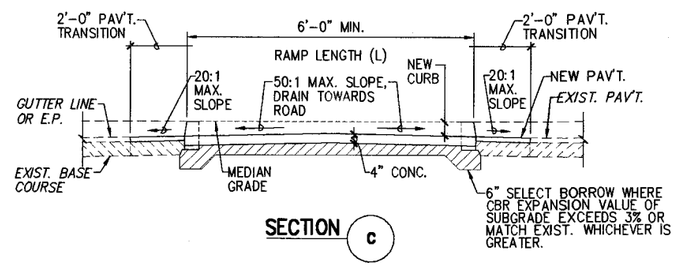
NOT TO SCALE — PARALLEL CURB RAMP ON CURVE



PLAN



ELEVATION



TYPE C CURB RAMP

NOT TO SCALE — MEDIAN CURB RAMP

DISCLAIMER

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PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

TYPICAL ADA CURB RAMP DETAILS

DRAWING NO. DT-1

DATE: 5-24-02 | SHT. NO. 136 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-01 TYPICAL ADA CURB RAMP DETAILS.DWG 08/07/01 21:50 DaY

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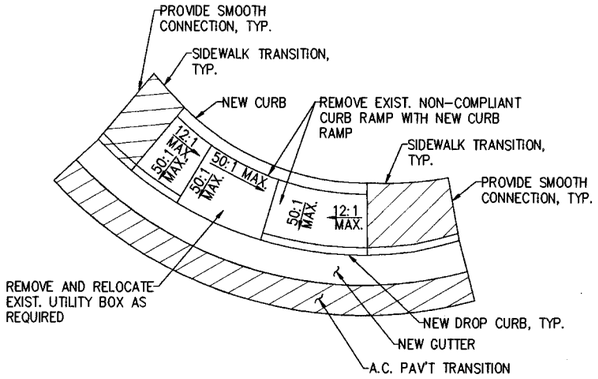
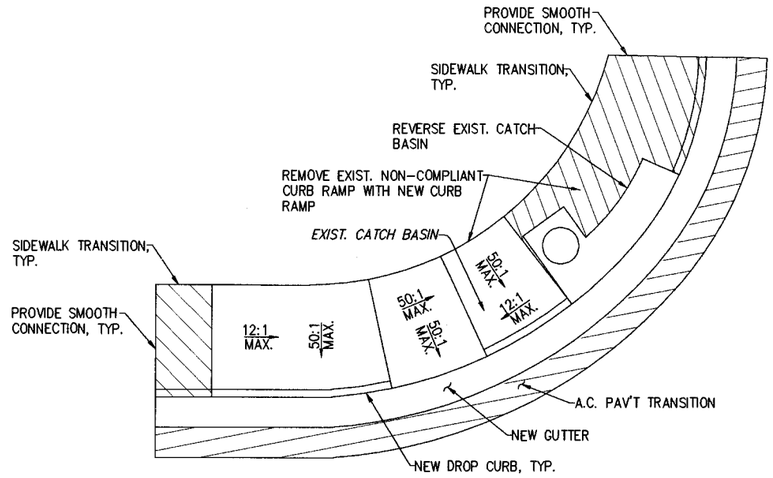


TYP. NEW RAMP WITH EXIST. UTILITY BOX RELOCATION

NOT TO SCALE



TYP. NEW RAMP WITH EXIST. CATCH BASIN RELOCATION

NOT TO SCALE

DISCLAIMER

THE EXISTING TOPOGRAPHICAL AND ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT

CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

TYPICAL ADA CURB RAMP DETAILS

DRAWING NO.

DT-2

DATE: 5-24-02 | SHT. NO. 137 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\D-02 TYPICAL ADA CURB RAMP DETAILS.DWG 08/09/01 05:43 DaY

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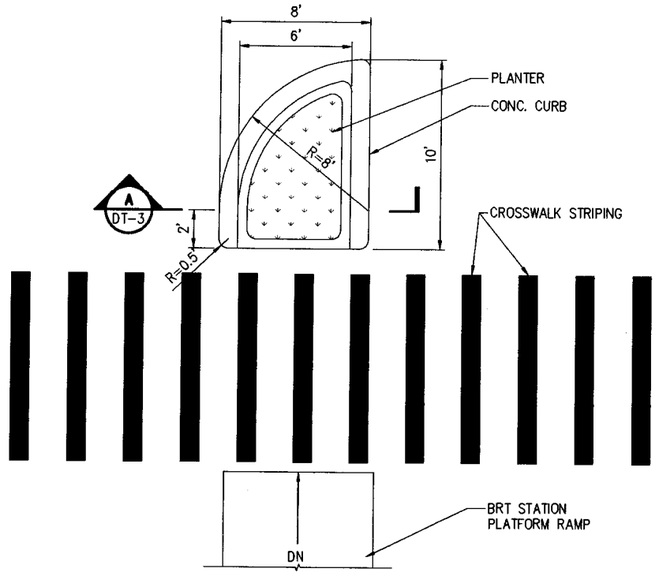
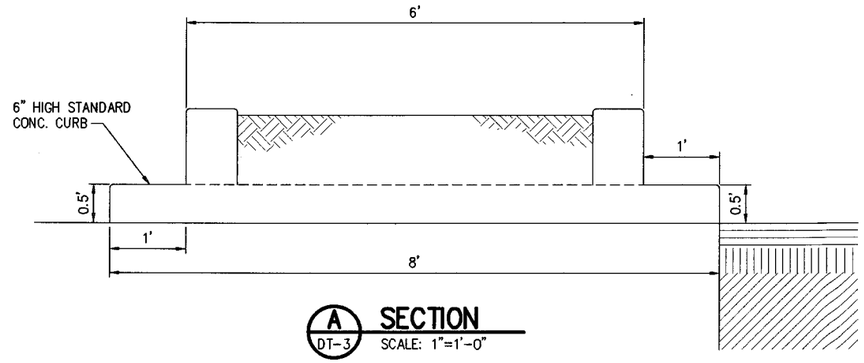


1 DT-3 **BRT STATION VEHICLE BARRIER/PLANTER**
SCALE: 3"=1'-0"



A DT-3 **SECTION**
SCALE: 1"=1'-0"

DISCLAIMER

THE EXISTING TOPOGRAPHICAL AND ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON HAVE BEEN COMPILED FROM SURVEYS AND/OR IMPROVEMENT PLANS PREPARED BY OTHERS. SSFM INTERNATIONAL DOES NOT GUARANTEE THE COMPLETENESS OR ACCURACY OF THE EXISTING TOPOGRAPHICAL INFORMATION OR ABOVE AND BELOW GROUND UTILITY LINES SHOWN HEREON.

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:

BRT STATION
TYPICAL VEHICLE BARRIER/PLANTER DETAIL

DRAWING NO.
DT-3

DATE: 5-24-02 | SHT. NO. 138 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\DT-03 ROAD BARRIER.DWG 08/21/01 14:46 DaY

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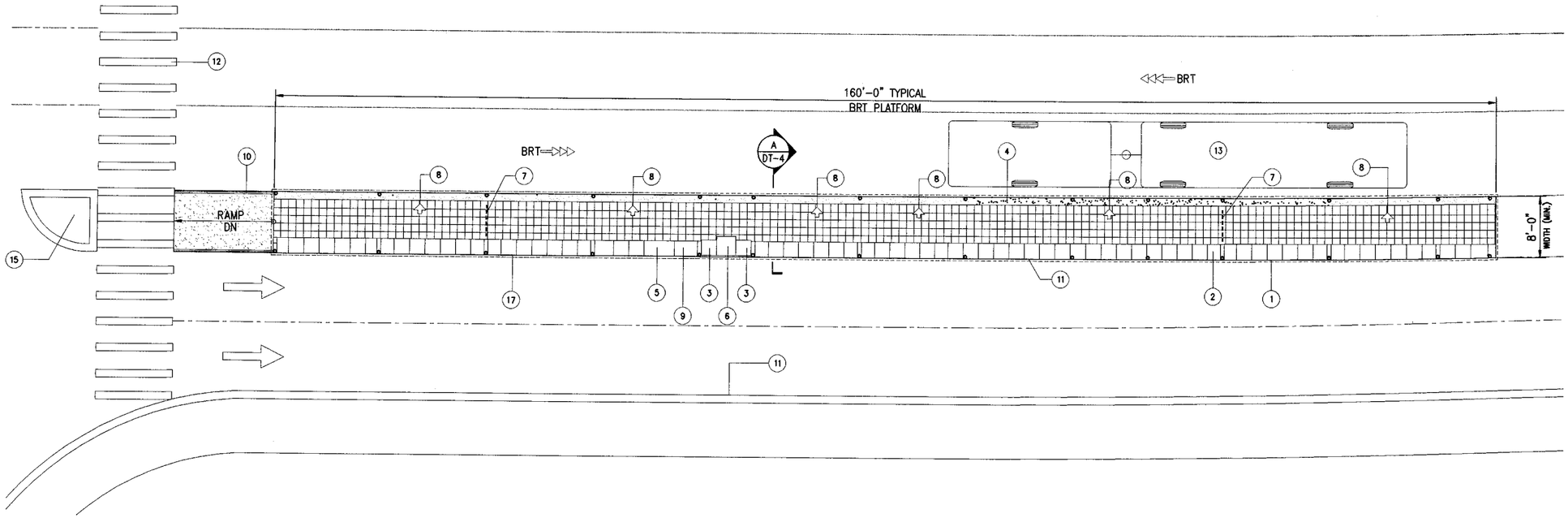

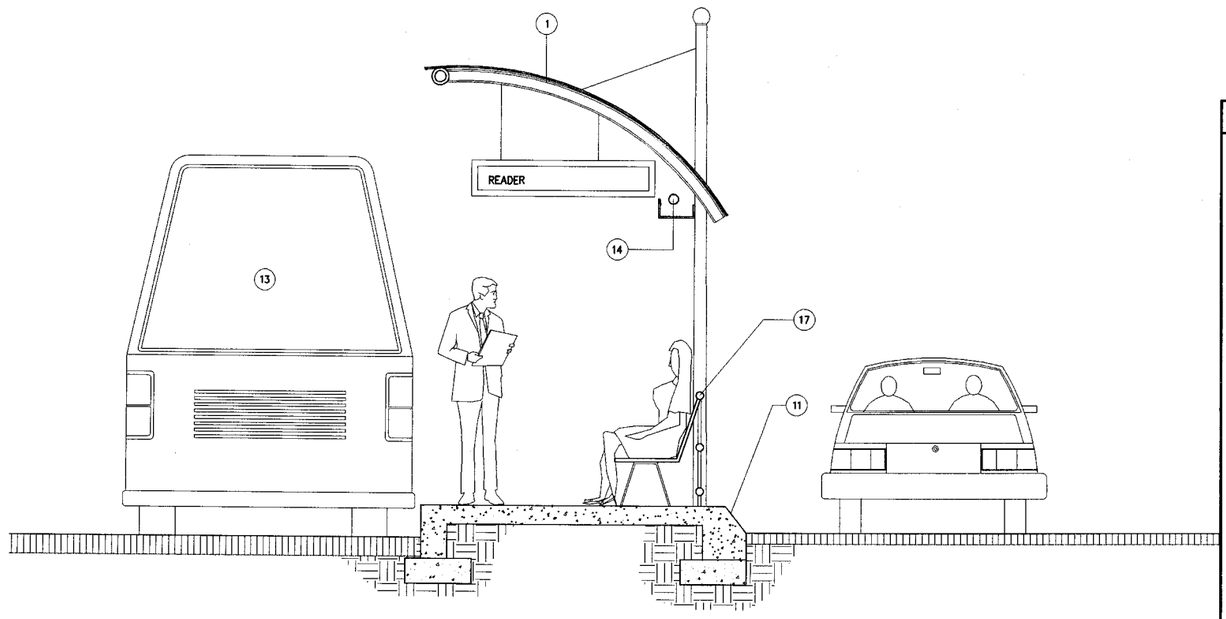

A DT-4 TYPICAL SECTION
SCALE: 1/2"=1'-0"

NOTES

1. CANOPIES TO BE LOCATED INTERMITTENTLY OVER LENGTH OF PLATFORM
2. SEATING (TYPICAL)
3. WASTE RECEPTACLE
4. TACTILE FLOOR SURFACE
5. TICKET VENDING MACHINE
6. INFORMATION KIOSK
7. TRANSIT STOP LOCATOR SIGN (2 SIDED)
8. DIRECTION OF BOARDING
9. TELEPHONE
10. GUARD/HANDRAIL
11. DEFLECTION CURB
12. CROSS WALK
13. BRT BUS
14. LIGHT FIXTURES
15. BRT TRANSIT STOP VEHICLE BARRIER/PLANTER
16. SIDE WALK
17. GUARD RAIL

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1/8" = 1'-0"
0 1' 5' 10' 25'

BRT STATION-TYPICAL CENTER ISLAND

DRAWING NO.
DT-4

DATE:10-23-02 SHT. NO. 139 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\DT-04.DWG 10/23/02 14:45 WGH

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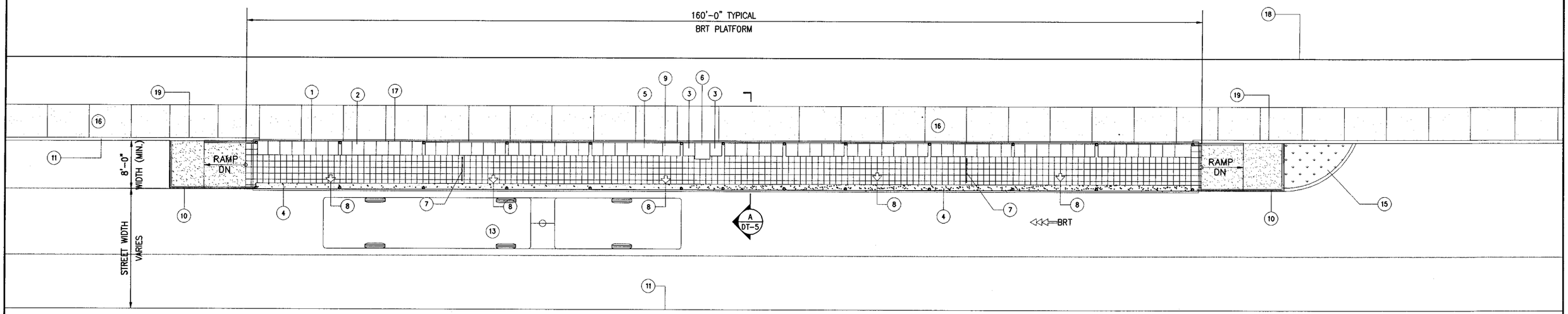

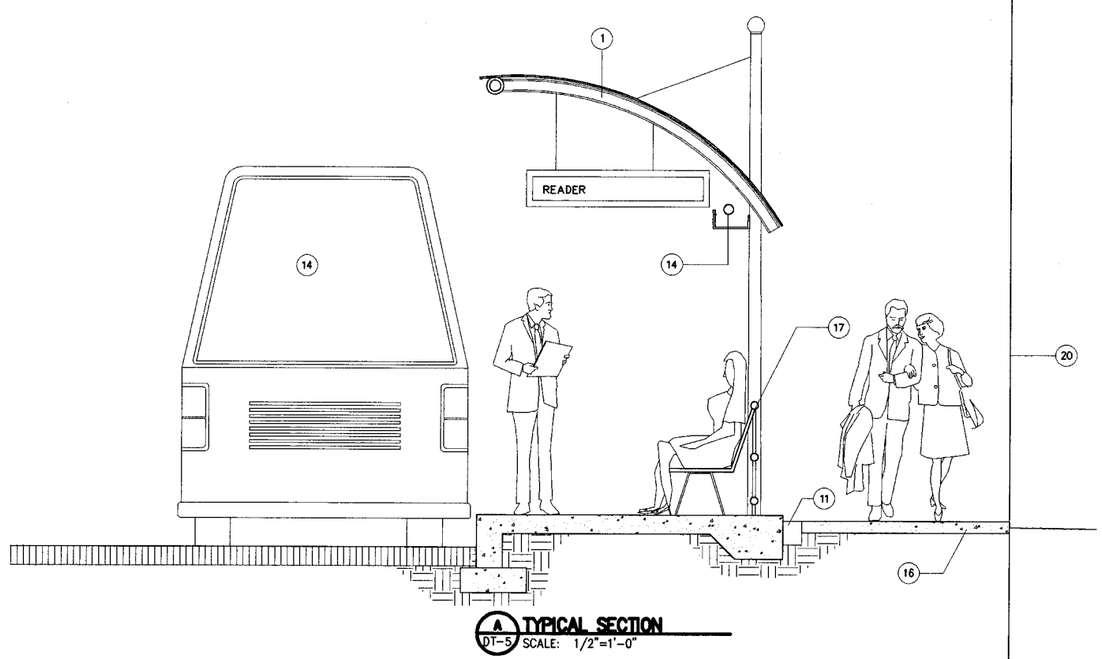

A DT-5 TYPICAL SECTION
SCALE: 1/2"=1'-0"

NOTES

1. CANOPIES TO BE LOCATED INTERMITTENTLY OVER LENGTH OF PLATFORM
2. SEATING (TYPICAL)
3. WASTE RECEPTACLE
4. TACTILE FLOOR SURFACE
5. TICKET VENDING MACHINE
6. INFORMATION KIOSK
7. TRANSIT STOP LOCATOR SIGN (2 SIDED)
8. DIRECTION OF BOARDING
9. TELEPHONE
10. GUARD/HANDRAIL
11. CURB
12. CROSS WALK
13. BRT BUS
14. LIGHT FIXTURES
15. BRT STATION VEHICLE BARRIER/PLANTER
16. EXISTING SIDE WALK
17. GUARD RAIL
18. RIGHT-OF-WAY OR EDGE OF BUILDING
19. CONNCETION TO EXISTING CURB

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1/8" = 1'-0"
0 1' 5' 10' 25'

BRT STATION-TYPICAL
ROAD/ CURB SIDE

DRAWING NO.
DT-5
DATE:10-23-02 SHT. NO.140 OF 142

I:\2000\2000_286.000 BRT\G DRAWINGS\CONTRACT DOCUMENTS\DT-05.DWG 05/28/02 16:39 JCH

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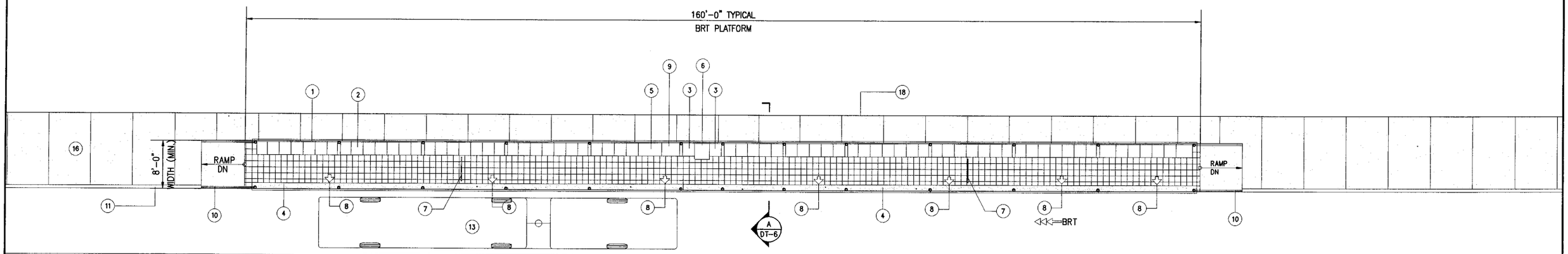

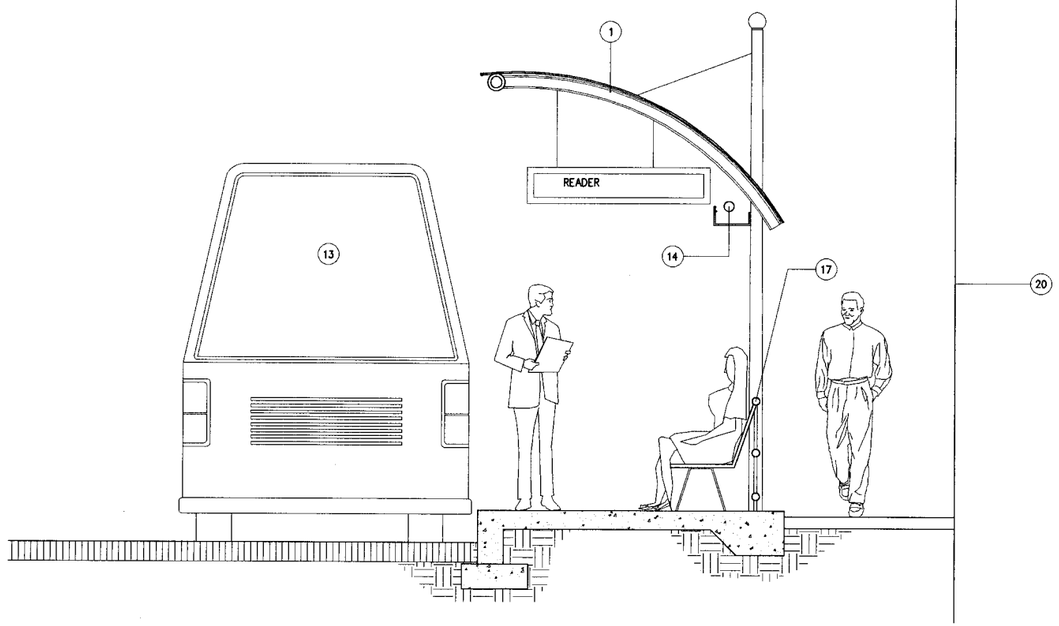

A DT-6 TYPICAL SECTION
SCALE: 1/2"=1'-0"

NOTES

1. CANOPIES TO BE LOCATED INTERMITTENTLY OVER LENGTH OF PLATFORM
2. SEATING (TYPICAL)
3. WASTE RECEPTACLE
4. TACTILE FLOOR SURFACE
5. TICKET VENDING MACHINE
6. INFORMATION KIOSK
7. TRANSIT STOP LOCATOR SIGN (2 SIDED)
8. DIRECTION OF BOARDING
9. TELEPHONE
10. GUARD/HANDRAIL
11. CURB
12. CROSS WALK
13. BRT BUS
14. LIGHT FIXTURES
15. BRT STATION VEHICLE BARRIER/PLANTER
16. EXISTING SIDE WALK
17. GUARD RAIL
18. RIGHT-OF-WAY OR EDGE OF BUILDING

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1/8" = 1'-0"
0 1' 5' 10' 25'

BRT STATION-TYPICAL SIDE WALK/ CURB SIDE

DRAWING NO.
DT-6

DATE:10-23-02 SHT. NO. 141 OF 142

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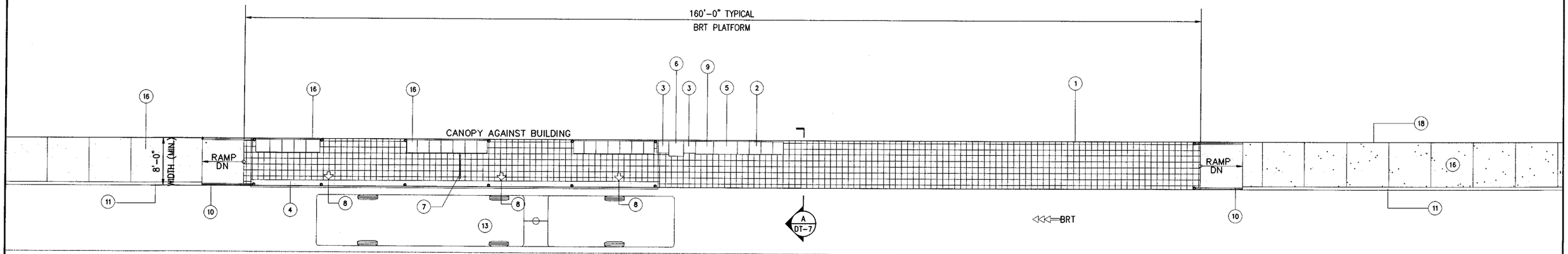

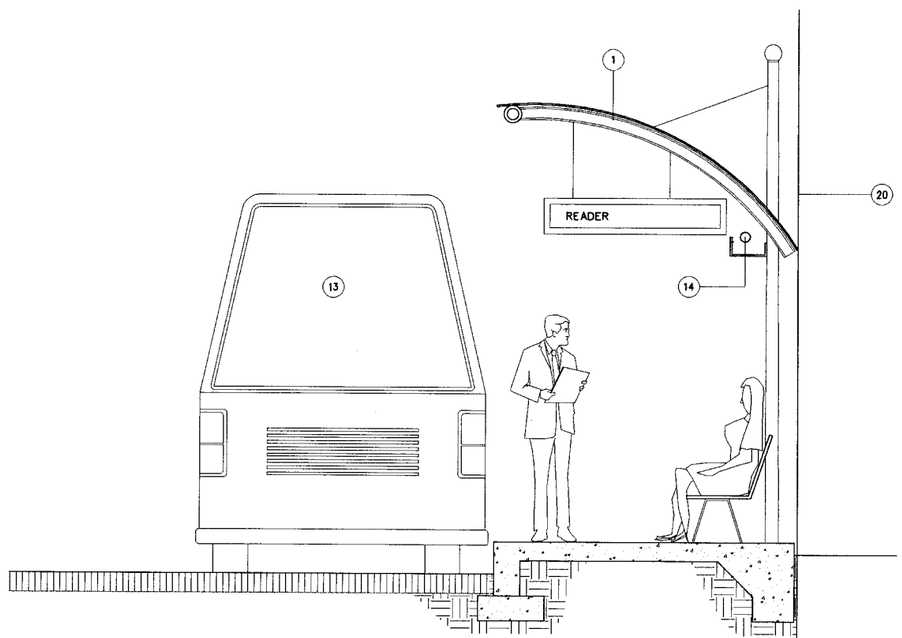

A DT-7 TYPICAL SECTION
SCALE: 1/2"=1'-0"

NOTES

1. CANOPIES TO BE LOCATED INTERMITTENTLY OVER LENGTH OF PLATFORM
2. SEATING (TYPICAL)
3. WASTE RECEPTACLE
4. TACTILE FLOOR SURFACE
5. TICKET VENDING MACHINE
6. INFORMATION KIOSK
7. TRANSIT STOP LOCATOR SIGN (2 SIDED)
8. DIRECTION OF BOARDING
9. TELEPHONE
10. GUARD/HANDRAIL
11. CURB
12. CRDSS WALK
13. BRT BUS
14. LIGHT FIXTURES
15. BRT STATION VEHICLE BARRIER/PLANTER
16. EXISTING SIDE WALK
17. GUARD RAIL
18. RIGHT-OF-WAY OR EDGE OF BUILDING

PRIMARY CORRIDOR TRANSPORTATION PROJECT
CITY & COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES

SCALE:
1/8" = 1'-0"
0 1' 5' 10' 25'

BRT STATION-TYPICAL SIDE WALK/ PROPERTY LINE

DRAWING NO.
DT-7
DATE:10-23-02 SHT. NO.142 OF 142

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REFINED LOCALLY PREFERRED ALTERNATIVE
CASH FLOW ANALYSIS FY 2003 - 2025 ($ YOE, 000)

PRIMARY CORRIDOR TRANSPORTATION PROJECT REFINED LOCALLY PREFERRED ALTERNATIVE	14 YR TOTAL 2003-2016	23 YR TOTAL 2003-2025	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CAPITAL COSTS												
IN-TOWN BRT PROGRAM												
Fixed Facilities												
Fixed Facilities (Iwilei-Waikiki Segment)	**$72,690**	**$72,690**	$7,030	$32,425	$33,235	$0	$0	$0	$0	$0	$0	$0
Fixed Facilities (Kalihi Segment)	**$81,177**	**$81,177**	$0	$7,851	$36,211	$37,116	$0	$0	$0	$0	$0	$0
Fixed Facilities (Downtown/University Segment)	**$38,225**	**$38,225**	$0	$0	$3,697	$17,051	$17,477	$0	$0	$0	$0	$0
Fixed Facilities (Kakaako Mauka)	**$13,431**	**$13,431**	$0	$0	$1,314	$12,117	$0	$0	$0	$0	$0	$0
Transit Centers (Iwilei and Middle St.)	**$22,271**	**$22,271**	$0	$2,154	$9,934	$10,183	$0	$0	$0	$0	$0	$0
Subtotal In-Town BRT Fixed Facilities	***$227,793***	***$227,793***	**$7,030**	**$42,429**	**$84,390**	**$76,467**	**$17,477**	**$0**	**$0**	**$0**	**$0**	**$0**
Net Cost for Hybrid-Electric Vehicles	***$15,446***	***$15,446***	**$0**	**$7,628**	**$7,818**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total In-Town BRT Program	***$243,239***	***$243,239***	***$7,030***	***$50,056***	***$92,209***	***$76,467***	***$17,477***	***$0***	***$0***	***$0***	***$0***	***$0***
EMBEDDED PLATE TECHNOLOGY												
Fixed Facilities												
EPT (Iwilei-Waikiki)	**$41,647**	**$41,647**	$0	$0	$0	$0	$0	$0	$0	$3,983	$12,246	$12,552
EPT (Kalihi)	**$16,865**	**$16,865**	$0	$0	$0	$0	$0	$0	$0	$0	$1,631	$7,523
EPT (Downtown/University)	**$33,481**	**$33,481**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
EPT (Kakaako Mauka)	**$5,833**	**$5,833**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal EPT Fixed Facilities	***$97,826***	***$97,826***	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,983**	**$13,877**	**$20,075**
Net Cost of EPT Vehicles	***$31,246***	***$31,246***	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total Embedded Plate Technology	***$129,072***	***$129,072***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$3,983***	***$13,877***	***$20,075***
TOTAL IN TOWN AND EMBEDDED PLATE TECHNOLOGY	***$372,310***	***$372,310***	**$7,030**	**$50,056**	**$92,209**	**$76,467**	**$17,477**	**$0**	**$0**	**$3,983**	**$13,877**	**$20,075**
REGIONAL BRT PROGRAM												
BRT Transit Centers and Parking	**$31,744**	**$31,744**	$0	$0	$0	$817	$7,536	$0	$826	$3,810	$5,358	$13,397
BRT Zipper Lanes	**$142,410**	**$142,410**	$0	$0	$0	$1,203	$11,658	$40,257	$48,528	$20,130	$20,634	$0
BRT Priority Ramp Improvements	**$70,225**	**$70,225**	$0	$0	$0	$0	$0	$0	$6,596	$30,426	$31,384	$1,819
Total Regional BRT Program	***$244,379***	***$244,379***	***$0***	***$0***	***$0***	***$2,020***	***$19,194***	***$40,257***	***$55,951***	***$54,367***	***$57,375***	***$15,216***
TOTAL IN TOWN AND REGIONAL BRT PROGRAM	***$487,618***	***$487,618***	***$7,030***	***$50,056***	***$92,209***	***$78,486***	***$36,671***	***$40,257***	***$55,951***	***$54,367***	***$57,375***	***$15,216***
TOTAL IN TOWN, EMBEDDED PLATE TECHNOLOGY, AND REGIONAL BRT PROGRAM	***$616,689***	***$616,689***	**$7,030**	**$50,056**	**$92,209**	**$78,486**	**$36,671**	**$40,257**	**$55,951**	**$58,349**	**$71,253**	**$35,291**
SYSTEM-WIDE IMPROVEMENTS												
Bus Acquisitions	**$356,426**	**$632,863**	$23,194	$32,567	$31,931	$25,270	$17,409	$18,350	$14,689	$11,815	$26,998	$16,447
TheHandi-Van Vehicle Acquisitions	**$22,905**	**$43,817**	$1,324	$0	$1,545	$1,663	$1,624	$1,664	$1,706	$1,836	$1,792	$1,837
Bus Maintenance Facility	**$35,668**	**$35,668**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Kamehameha Highway Corridor and Transit Centers	**$10,982**	**$10,982**	$51	$3,907	$2,771	$4,253	$0	$0	$0	$0	$0	$0
Subtotal System-Wide Improvements	***$425,982***	***$723,331***	***$24,569***	***$36,473***	***$36,247***	***$31,186***	***$19,033***	***$20,014***	***$16,395***	***$13,651***	***$28,790***	***$18,284***
Total Capital Costs	***$1,042,671***	***$1,340,020***	***$31,599***	***$86,530***	***$128,456***	***$109,672***	***$55,703***	***$60,271***	***$72,345***	***$72,000***	***$100,043***	***$53,575***
DEBT SERVICE PAYMENTS												
Debt Service Payments from Highway Fund on Bonds Issued before 2003	**$279,823**	**$365,265**	$19,568	$21,454	$22,324	$24,288	$22,577	$22,225	$22,210	$21,406	$21,002	$19,154
Debt Service Payments from Highway Fund on Planned Future Notes & Bonds	**$214,533**	**$473,533**	$1,777	$3,127	$5,691	$10,119	$13,091	$14,904	$16,887	$18,325	$19,422	$20,519
Debt Service Payments from Highway Fund on Additional Primary Corridor Bonds	**$32,767**	**$104,159**	$0	$0	$0	$0	$1,037	$1,179	$1,590	$2,885	$3,084	$3,855
Total Debt Service Payments from Highway Fund	***$527,123***	***$942,956***	***$21,345***	***$24,581***	***$28,016***	***$34,407***	***$36,705***	***$38,308***	***$40,686***	***$42,616***	***$43,508***	***$43,529***
TOTAL CAPITAL AND DEBT SERVICE COSTS	***$1,569,794***	***$2,282,976***	***$52,943***	***$111,110***	***$156,471***	***$144,079***	***$92,409***	***$98,580***	***$113,032***	***$114,616***	***$143,550***	***$97,103***
OPERATING COSTS												
Bus O&M	**$2,244,369**	**$4,356,880**	$122,407	$126,748	$131,245	$135,900	$143,472	$151,464	$159,902	$165,053	$170,371	$175,859
TheHandi-Van O&M	**$243,369**	**$468,249**	$14,005	$14,460	$14,929	$15,415	$15,916	$16,433	$16,966	$17,518	$18,087	$18,674
Total Operating Costs	***$2,487,738***	***$4,825,129***	***$136,411***	***$141,208***	***$146,174***	***$151,315***	***$159,387***	***$167,897***	***$176,868***	***$182,572***	***$188,458***	***$194,533***

REFINED LOCALLY PREFERRED ALTERNATIVE
CASH FLOW ANALYSIS FY 2003 - 2025 ($ YOE, 000)

PRIMARY CORRIDOR TRANSPORTATION PROJECT REFINED LOCALLY PREFERRED ALTERNATIVE	14 YR TOTAL 2003-2016	23 YR TOTAL 2003-2025	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CAPITAL REVENUES												
FEDERAL TRANSIT ADMINISTRATION												
Section 5307 Urbanized Area Formula Funds	**$222,514**	**$410,518**	$3,547	$4,828	$23,229	$17,344	$13,814	$17,555	$18,188	$15,127	$23,836	$9,072
Section 5309 Fixed Guideway Modernization	**$20,839**	**$37,629**	$1,305	$1,331	$1,357	$1,384	$1,412	$1,440	$1,469	$1,499	$1,528	$1,559
Section 5309 Bus Discretionary	**$47,744**	**$47,744**		$9,631	$8,885	$3,402						
Section 5309 New Start - In-Town BRT	**$186,155**	**$186,155**	$3,515	$25,028	$45,000	$39,337	$8,739	$0	$0	$1,991	$6,939	$10,038
Section 5309 New Start - Regional BRT	**$55,845**	**$55,845**	$0	$0	$0	$408	$3,768	$0	$3,711	$17,118	$23,231	$7,608
Subtotal Federal Transit Administration	***$533,097***	***$737,891***	***$8,367***	***$40,818***	***$78,471***	***$61,877***	***$27,732***	***$18,995***	***$23,368***	***$35,735***	***$55,535***	***$28,276***
FHWA/OTHER FEDERAL HIGHWAY REVENUE	***$139,659***	***$139,659***	***$0***	***$0***	***$0***	***$1,207***	***$11,587***	***$20,000***	***$20,000***	***$20,000***	***$20,000***	***$20,000***
CITY GENERAL OBLIGATION BOND PROCEEDS FOR MASS TRANSIT PROGRAM												
CIP Bond Schedule (Within levels of 2003-2008 CIP)	**$274,408**	**$364,395**	$23,232	$45,712	$49,984	$27,738	$13,805	$13,805	$13,805	$13,805	$13,805	$5,299
Additional Mass Transit Program Bonds	**$95,508**	**$105,688**				$18,851	$2,579	$7,471	$15,172	$2,460	$10,703	
Subtotal City General Obligation Bond Proceeds	***$369,916***	***$462,471***	***$23,232***	***$45,712***	***$49,984***	***$46,589***	***$16,384***	***$21,276***	***$28,977***	***$16,265***	***$24,508***	***$5,299***
Total Capital Revenues	***$1,042,671***	***$1,340,020***	***$31,599***	***$86,530***	***$128,455***	***$109,673***	***$55,703***	***$60,271***	***$72,346***	***$72,000***	***$100,043***	***$53,575***
REVENUES REQUIRED FOR DEBT SERVICE PAYMENTS												
Highway Fund	**$451,891**	**$785,135**	$21,345	$24,581	$28,016	$33,509	$33,676	$33,845	$34,014	$34,184	$34,355	$34,527
Additional Revenue Required for Mass Transit Bond Debt Service	**$75,232**	**$157,821**	$0	$0	$0	$898	$3,029	$4,464	$6,673	$8,432	$9,153	$9,002
Total Revenues Required for Debt Service Payments	***$527,123***	***$942,956***	***$21,345***	***$24,581***	***$28,016***	***$34,407***	***$36,705***	***$38,308***	***$40,686***	***$42,616***	***$43,508***	***$43,529***
TOTAL REVENUES FOR CAPITAL AND DEBT SERVICE PAYMENTS	**$1,569,794**	**$2,282,976**	**$52,944**	**$111,111**	**$156,471**	**$144,080**	**$92,408**	**$98,579**	**$113,032**	**$114,616**	**$143,551**	**$97,104**
OPERATING REVENUES												
Bus Passenger Fares	**$617,204**	**$1,214,158**	$33,050	$34,341	$35,681	$37,073	$39,199	$41,447	$43,826	$45,351	$46,929	$48,563
TheHandi-Van Fares	**$26,068**	**$50,152**	$1,500	$1,549	$1,599	$1,651	$1,705	$1,760	$1,818	$1,876	$1,937	$2,001
FTA Section 5307 Urbanized Area Formula (Preventive Maintenance)	**$174,277**	**$320,017**	$20,000	$20,000	$2,194	$8,686	$12,838	$9,733	$9,750	$13,477	$5,448	$20,909
City Operating Support for Transit O&M	**$1,670,190**	**$3,240,801**	$81,861	$85,319	$106,701	$103,905	$105,645	$114,956	$121,475	$121,867	$134,145	$123,060
Total O&M Revenues	***$2,487,738***	***$4,825,129***	***$136,411***	***$141,208***	***$146,174***	***$151,315***	***$159,387***	***$167,897***	***$176,868***	***$182,572***	***$188,458***	***$194,533***
Changes to Cash	***$0***	***$0***	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
BEGINNING CASH BALANCE	***$0***	***$0***	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*
CHANGES TO CASH BALANCE	***$0***	***$0***	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*
ENDING CASH BALANCE	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***

REFINED LOCALLY PREFERRED ALTERNATIVE
CASH FLOW ANALYSIS FY 2003 - 2025 ($ YOE, 000)

PRIMARY CORRIDOR TRANSPORTATION PROJECT REFINED LOCALLY PREFERRED ALTERNATIVE	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
CAPITAL COSTS														
IN-TOWN BRT PROGRAM														
Fixed Facilities														
Fixed Facilities (Iwilei-Waikiki Segment)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$72,690
Fixed Facilities (Kalihi Segment)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$81,177
Fixed Facilities (Downtown/University Segment)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$38,225
Fixed Facilities (Kakaako Mauka)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$13,431
Transit Centers (Iwilei and Middle St.)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$22,271
Subtotal In-Town BRT Fixed Facilities	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$227,793**
Net Cost for Hybrid-Electric Vehicles	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$15,446**
Total In-Town BRT Program	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$243,239***
EMBEDDED PLATE TECHNOLOGY														
Fixed Facilities														
EPT (Iwilei-Waikiki)	$12,866	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$41,647
EPT (Kalihi)	$7,711	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$16,865
EPT (Downtown/University)	$3,202	$9,845	$10,091	$10,343	$0	$0	$0	$0	$0	$0	$0	$0	$0	$33,481
EPT (Kakaako Mauka)	$0	$0	$570	$5,262	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,833
Subtotal EPT Fixed Facilities	**$23,779**	**$9,845**	**$10,661**	**$15,606**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$97,826**
Net Cost of EPT Vehicles	**$15,430**	**$15,816**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$31,246**
Total Embedded Plate Technology	***$39,209***	***$25,661***	***$10,661***	***$15,606***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$129,072***
TOTAL IN TOWN AND EMBEDDED PLATE TECHNOLOGY	**$39,209**	**$25,661**	**$10,661**	**$15,606**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$372,310**
REGIONAL BRT PROGRAM														
BRT Transit Centers and Parking	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$31,744
BRT Zipper Lanes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$142,410
BRT Priority Ramp Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$70,225
Total Regional BRT Program	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$244,379***
TOTAL IN TOWN AND REGIONAL BRT PROGRAM	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$487,618***
TOTAL IN TOWN, EMBEDDED PLATE TECHNOLOGY, AND REGIONAL BRT PROGRAM	**$39,209**	**$25,661**	**$10,661**	**$15,606**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$616,689**
SYSTEM-WIDE IMPROVEMENTS														
Bus Acquisitions	$32,278	$32,328	$28,264	$44,887	$45,194	$32,527	$34,835	$34,819	$30,034	$22,853	$16,287	$37,217	$22,672	**$632,863**
TheHandi-Van Vehicle Acquisitions	$1,883	$2,026	$1,978	$2,028	$2,078	$2,237	$2,183	$2,238	$2,294	$2,469	$2,410	$2,470	$2,532	**$43,817**
Bus Maintenance Facility	$0	$17,614	$18,054	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$35,668**
Kamehameha Highway Corridor and Transit Centers	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$10,982**
Subtotal System-Wide Improvements	***$34,161***	***$51,969***	***$48,297***	***$46,915***	***$47,272***	***$34,763***	***$37,018***	***$37,057***	***$32,328***	***$25,322***	***$18,697***	***$39,688***	***$25,205***	$723,331
Total Capital Costs	***$73,370***	***$77,629***	***$58,958***	***$62,520***	***$47,272***	***$34,763***	***$37,018***	***$37,057***	***$32,328***	***$25,322***	***$18,697***	***$39,688***	***$25,205***	$1,340,020
DEBT SERVICE PAYMENTS														
Debt Service Payments from Highway Fund on Bonds Issued before 2003	$19,623	$16,560	$13,172	$14,260	$12,896	$12,789	$12,163	$12,061	$10,689	$6,214	$6,211	$7,796	$4,622	**$365,265**
Debt Service Payments from Highway Fund on Planned Future Notes & Bonds	$21,148	$22,146	$23,243	$24,132	$25,185	$26,283	$27,122	$28,052	$28,953	$29,596	$30,619	$31,134	$32,055	**$473,533**
Debt Service Payments from Highway Fund on Additional Primary Corridor Bonds	$4,227	$4,287	$4,904	$5,721	$6,654	$7,316	$7,679	$8,094	$8,319	$8,319	$8,319	$8,319	$8,374	**$104,159**
Total Debt Service Payments from Highway Fund	***$44,998***	***$42,993***	***$41,319***	***$44,114***	***$44,735***	***$46,387***	***$46,964***	***$48,208***	***$47,960***	***$44,129***	***$45,149***	***$47,249***	***$45,052***	**$942,956**
TOTAL CAPITAL AND DEBT SERVICE COSTS	**$118,368**	**$120,622**	**$100,277**	**$106,634**	**$92,007**	**$81,151**	**$83,982**	**$85,265**	**$80,288**	**$69,451**	**$63,846**	**$86,937**	**$70,256**	**$2,282,976**
OPERATING COSTS														
Bus O&M	$181,525	$187,373	$193,409	$199,640	$206,073	$212,710	$219,563	$226,637	$233,938	$241,475	$249,255	$257,285	$265,574	**$4,356,880**
TheHandi-Van O&M	$19,281	$19,908	$20,555	$21,223	$21,911	$22,624	$23,358	$24,119	$24,902	$25,712	$26,546	$27,409	$28,299	**$468,249**
Total Operating Costs	***$200,806***	***$207,281***	***$213,964***	***$220,863***	***$227,984***	***$235,334***	***$242,922***	***$250,756***	***$258,841***	***$267,186***	***$275,801***	***$284,695***	***$293,873***	***$4,825,129***

REFINED LOCALLY PREFERRED ALTERNATIVE
CASH FLOW ANALYSIS FY 2003 - 2025 ($ YOE, 000)

PRIMARY CORRIDOR TRANSPORTATION PROJECT REFINED LOCALLY PREFERRED ALTERNATIVE	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
CAPITAL REVENUES														
FEDERAL TRANSIT ADMINISTRATION														
Section 5307 Urbanized Area Formula Funds	$7,419	$22,983	$23,300	$22,274	$22,579	$23,894	$24,444	$25,006	$22,817	$17,229	$11,946	$22,892	$17,196	**$410,518**
Section 5309 Fixed Guideway Modernization	$1,590	$1,622	$1,654	$1,688	$1,721	$1,756	$1,791	$1,827	$1,863	$1,900	$1,938	$1,977	$2,017	**$37,629**
Section 5309 Bus Discretionary	$12,753	$13,072												**$47,744**
Section 5309 New Start - In-Town BRT	$19,604	$12,830	$5,331	$7,803	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$186,155**
Section 5309 New Start - Regional BRT	$0	$0	$0	$0	$0									**$55,845**
Subtotal Federal Transit Administration	***$41,367***	***$50,508***	***$30,285***	***$31,764***	***$24,301***	***$25,650***	***$26,235***	***$26,832***	***$24,681***	***$19,130***	***$13,885***	***$24,869***	***$19,212***	***$737,891***
FHWA/OTHER FEDERAL HIGHWAY REVENUE	***$20,000***	***$6,864***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$139,659***
CITY GENERAL OBLIGATION BOND PROCEEDS FOR MASS TRANSIT PROGRAM														
CIP Bond Schedule (Within levels of 2003-2008 CIP)	$12,003	$13,805	$13,805	$13,805	$13,805	$9,113	$10,783	$10,225	$7,647	$13,805	$4,812	$13,805	$5,992	**$364,395**
Additional Mass Transit Program Bonds		$6,453	$14,868	$16,951	$9,167							$1,014		**$105,688**
Subtotal City General Obligation Bond Proceeds	***$12,003***	***$20,258***	***$28,673***	***$30,756***	***$22,972***	***$9,113***	***$10,783***	***$10,225***	***$7,647***	***$6,193***	***$4,812***	***$14,819***	***$5,992***	***$470,083***
Total Capital Revenues	***$73,370***	***$77,629***	***$58,958***	***$62,520***	***$47,272***	***$34,763***	***$37,018***	***$37,057***	***$32,328***	***$25,323***	***$18,697***	***$39,687***	***$25,204***	***$1,347,632***
REVENUES REQUIRED FOR DEBT SERVICE PAYMENTS														
Highway Fund	$34,699	$34,873	$35,047	$35,222	$35,398	$35,575	$35,753	$35,932	$36,112	$36,292	$36,474	$36,656	$45,052	**$785,135**
Additional Revenue Required for Mass Transit Bond Debt Service	$10,299	$8,120	$6,272	$8,891	$9,336	$10,812	$11,211	$12,276	$11,848	$7,837	$8,675	$10,593	$0	**$157,821**
Total Revenues Required for Debt Service Payments	***$44,998***	***$42,993***	***$41,319***	***$44,114***	***$44,735***	***$46,387***	***$46,964***	***$48,208***	***$47,960***	***$44,129***	***$45,149***	***$47,249***	***$45,052***	***$942,956***
TOTAL REVENUES FOR CAPITAL AND DEBT SERVICE PAYMENTS	**$118,368**	**$120,622**	**$100,277**	**$106,634**	**$92,007**	**$81,150**	**$83,982**	**$85,266**	**$80,288**	**$69,452**	**$63,846**	**$86,936**	**$70,256**	**$2,290,589**
OPERATING REVENUES														
Bus Passenger Fares	$50,252	$52,001	$53,810	$55,682	$57,621	$59,627	$61,702	$63,848	$66,071	$68,370	$70,749	$73,210	$75,758	**$1,214,158**
TheHandi-Van Fares	$2,065	$2,132	$2,201	$2,273	$2,346	$2,423	$2,502	$2,583	$2,667	$2,755	$2,844	$2,935	$3,032	**$50,152**
FTA Section 5307 Urbanized Area Formula (Preventive Maintenance)	$23,275	$8,440	$8,869	$10,657	$11,133	$10,616	$10,883	$11,157	$14,200	$20,662	$26,840	$16,809	$23,442	**$320,017**
City Operating Support for Transit O&M	$125,214	$144,708	$149,084	$152,251	$156,885	$162,669	$167,836	$173,168	$175,904	$175,400	$175,368	$191,740	$191,641	**$3,240,801**
Total O&M Revenues	***$200,806***	***$207,281***	***$213,964***	***$220,863***	***$227,984***	***$235,334***	***$242,922***	***$250,756***	***$258,841***	***$267,186***	***$275,801***	***$284,695***	***$293,873***	***$4,825,129***
Changes to Cash	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
BEGINNING CASH BALANCE	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	
CHANGES TO CASH BALANCE	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	
ENDING CASH BALANCE	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	

Final Environmental Impact Statement

Primary Corridor Transportation Project

City and County of Honolulu
Department of Transportation Services

JULY 2003

AR00016600